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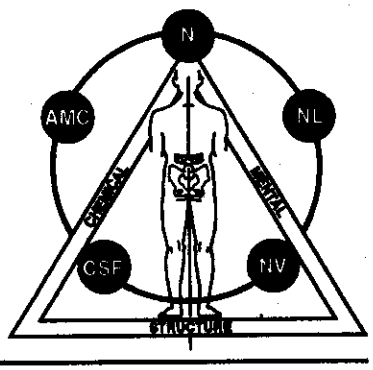

Message from the Chairman

Dr. Thomas Rogowskey

The members of the International College of Applied Kinesiology-U.S.A. are fortunate to share the insights, concepts and research through the papers presented in this issue of the Proceedings. The ICAK-U.S.A. continues to thrive as an "Arena of Ideas" through which members have the opportunity to present their observations and research results. These published works document the first steps toward the furtherance and development of the authors' hypotheses, concepts and procedural techniques. We invite all members to participate in this endeavor in the future.

Congratulations to all of our contributors. And a special thanks to Dr. John Heidrich, Publications Committee Chair, and our reviewers for all of their help. We look forward to seeing you at the Annual Meeting, June 5-8, 1997 in San Diego, California.

Introduction

This thirty-ninth collection of papers from members of the International College of Applied Kinesiology-U.S.A. contains 19 papers by 12 authors. The papers will be presented by the authors to the general membership at the Annual Meeting of the ICAK-U.S.A. in San Diego, California, June 5-8, 1997. The authors welcome comments and further ideas on their findings. You may talk with them at the meeting or write them directly; addresses are given in the Table of Contents.

The manuscripts are published by ICAK-U.S.A. as presented by the authors. There has been no effort to edit them in any way; however, they have been reviewed by the Publications Committee for originality and to determine that they follow the "Instructions to Authors" published by the ICAK-U.S.A. The primary purpose of the ICAK-U.S.A. in publishing the Proceedings is to provide an interchange of ideas to stimulate improved examination and therapeutic methods in applied kinesiology.

It should be understood that the procedures presented in these papers are not to be construed as a single method of diagnosis or treatment. The ICAK-U.S.A. expects applied kinesiology to be used by physicians licensed to be primary health care providers as an adjunct to their standard methods of diagnosis and treatment.

There are three divisions of the Proceedings of the Annual Meeting of the International College of Applied Kinesiology-U.S.A. Division I consists of papers for members' information. Division II contains papers inviting constructive comments to be published in future editions of the Proceedings. Division III is for constructive comments on papers published in Division II and for subjects that might be included in "Letters to the Editor" of a refereed journal. Papers will be put in Division I or II at the author's request. It is expected that authors will choose Division I for papers such as anecdotal case reports, thought-provoking new ideas that have not been researched, and other types of papers that are for the membership's general information. It is expected that Division II will include papers that have a research design, or those the author has thoroughly studied and worked with and believes to be a viable approach of examination and/or treatment. Studies to test methods developed by others, often called validation studies, fit well here. This area also lends itself to editorial-type comments about the practice of applied kinesiology and its procedures. Division III is somewhat similar to the

"Letters to the Editor" section of refereed journals. It provides a forum for members to comment on research design or other factors in papers previously presented. Its purpose is for us to improve the quality of our presentations and, in some cases, to provide rebuttal to presented material. Comments on papers will only be published in this area if the paper was presented in Division II inviting constructive criticism.

Neither the International College of Applied Kinesiology-U.S.A., its Executive Board, nor the membership, nor the International Board of Examiners, International College of Applied Kinesiology, necessarily endorses, approves of, or vouches for the originality or authenticity of any statements of fact or opinion in these papers. The opinions and positions stated are those of the authors and not by act of publication necessarily those of the International College of Applied Kinesiology-U.S.A., the Executive Board or membership of the International College of Applied Kinesiology-U.S.A., or the International Board of Examiners, International College of Applied Kinesiology.

Instructions to Authors Proceedings of the ICAK-U.S.A.

Manuscripts are reviewed for format, technical content, originality, and quality for reproduction. There is no review for authenticity of material.

The ICAK-U.S.A. recognizes that the usual procedure for selection of papers in the scientific community is a blind review. However, the purpose of the Proceedings of the ICAK-U.S.A. is to stimulate creative thinking and critical review among its members. These papers are distributed only to the members of the ICAK-U.S.A. for general evaluation, and for the members to put into perspective the validity of the described approaches. The purpose is to put before the membership primary observations that may lead to scientific investigations, new areas of research, and in-depth study, inspiring progress in the field of applied kinesiology.

Statements and opinions expressed in the articles and communications in the Proceedings of the ICAK-U.S.A. are those of the author(s); the editor(s) and the ICAK-U.S.A. disclaim any responsibility or liability for such material.

The current ICAK-U.S.A. Status Statement is published with the Proceedings of the ICAK-U.S.A. It is recommended that procedures presented in papers conform to the Status Statement; papers that do not will be published and identified in the table of contents as failing to conform. It is recommended that examination or treatment procedures that fail to conform to the ICAK-U.S.A. Status Statement be supported by statistical studies, literary references, and/or any other data supporting the procedure.

Papers are published in three divisions: I) papers intended by the author as informative to the membership and not inviting critical review; II) papers inviting critical and constructive comments from the membership in order to improve the total value of the paper. Comments may be made on such items as research design, methods presented, clarity of presentation, and practical use in a clinical setting. The author must include with his/her paper written indication of desire for the paper to be included in the section inviting critical review or for informative purposes. III) The third section is for review comments on papers published in Division II. These papers are for constructive review. Opinions or editorials with negative connotations only may be rejected.

Manuscripts are accepted by the ICAK-U.S.A. for consideration to publish with the understanding that they represent original unpublished work. Acceptance of the manuscript by the ICAK-U.S.A. does not necessarily

imply acceptance for publishing. The author may appeal any paper rejected to a committee composed of members of the Publications and Research Advisory Committees. The decision of this committee on publishing the paper will be final.

Following are the current requirements for papers submitted for publication.

1. The paper must be an original work and deal specifically with applied kinesiology examination and/or treatment techniques. Various techniques may be discussed if they are correlated with applied kinesiology manual muscle testing examination.

2. Papers that do not include a clearly labeled Abstract, Introduction, Discussion, Conclusion and Reference List will be returned to the author for revision. Papers that discuss the outcome of a research study must also include separate sections labeled Materials/Methods and Results. Papers that describe clinical procedures or protocols should include a concise step-by-step outline or flow chart for each procedure described in the paper. The text of the paper, regardless of the subject material, should include numbered references. Note that the standard format for journal and textbook references is reviewed at the conclusion of this article.

3. Quotations must be short, usually no longer than three lines, and should be referenced, giving credit to the original author. All referenced articles, books, or persons other than the author must be properly referenced at the end of the paper. (See examples listed on page x.)

4. Any quotation of copyrighted material that is longer than that noted above must be accompanied by permission to print from the author and/or copyright holder. The permission must specifically note that the material is to be printed in the Proceedings of the ICAK-U.S.A., copyrighted by the International College of Applied Kinesiology-U.S.A.

5. Any material that is copyrighted by the author must include permission for the ICAK-U.S.A. to reproduce the paper and any accompanying graphs, illustrations, etc., at any time and in any manner that the ICAK-U.S.A. so chooses.

6. All artwork must be original, or permission to print must be obtained from the author or artist, referenced in the article, and a copy of the authorization sent along with the article at the time of submission for printing in the Proceedings of the ICAK-U.S.A. Photographs must be original black-and-white glossy prints. Do not scan photographs into your computer file.

7. Terminology or procedures that might be unfamiliar to some readers should be referenced at the end of the paper. Avoid using nontechnical terms such as, "blow-out," "cleared," "fixed," or "TL'ed." Papers that contain unsupported and unsubstantiated claims for efficacy of the therapy will be returned to the author.

8. The publication standards for the healthcare professions typically call for more details for the following types of papers:

   - **Research Studies** - An investigation into the clinical efficacy of diagnostic and therapeutic procedures.
   - **Case Reports** - An account of the diagnosis, treatment and outcome of an unusual or otherwise significant case.
   - **Case Studies** - A comparative assessment of a series of related cases.
   - **Clinical Procedures** - Informative papers that review the procedural aspects of diagnostic or therapeutic approach - clinical protocols.
   - **Hypothesis** - A theory that explains a set of facts and presents a basis for further investigation.
   - **Clinical Observations** - Unique observations that involve manual/mechanical muscle testing and related procedures.
   - **Commentary** - Editorial-like, in-depth essays on matters relating to the clinical, professional, educational, and/or legal aspects of applied kinesiology.
   - **Critical Review** - A critique or commentary on a paper that previously appeared in Division II of the Proceedings.

   With the exception of a Commentary or a Critical Review, all papers must conform to the following format. Note that each section must be clearly labeled.

   - **Title & Author's Name**
   - **Abstract:** A brief description of the purpose of the study, basic procedures, main findings and principle conclusions.
   - **Introduction:** Summarize the rationale for the study or observation. Give background material when available and introduce the reader to what was done and why.
   - **Materials and Methods:** (for research studies) Describe the subjects, and identify the methods and procedures. Present sufficient detail to allow others to reproduce the procedures for comparison of results.
   - **Results:** (for research studies) Present results in a logical sequence and summarize the important observations. Include appropriate tables and illustrations.
   - **Discussion:** Discuss the implications of the findings and any limitations. Emphasize any new and important aspects of the findings. Discuss how the findings may relate to other relevant studies or observations.

- **Conclusions:** Unqualified conclusions and statements not directly supported by data or observation must be avoided. Make any recommendations that are appropriate and relevant to the subject matter.
- **Summary of Procedures:** Step-by-Step or Flow-Chart style description of diagnostic and therapeutic procedures described in the paper.
- **References:** The numbered references that correspond to the text of the paper.
- **For journal articles:** Author(s), Title in Quote " ," Name of Journal, Vol., No., (Month/Year).

  e.g. Schmitt, Jr., Walter H., "Fundamentals of Fatty Acid Metabolism - Part II," The Digest of Chiropractic Economics, Vol. 28, No. 2, (Sept.-Oct./1985).
- **For textbooks:** Authors(s), Title, (City of Publication, Name of Publisher, Copyright Date).

  e.g. Walther, David S., Applied Kinesiology, Volume I - Basic Procedures and Muscle Testing (Pueblo, CO., Systems DC, 1981).

9. Authors are required to send articles to the Central Office on computer disk. (Articles not submitted on disk will be keyed at the author's expense of $5/page.) Disks should be sent to the Central Office in a padded envelope with the marking "Magnetic Computer Disk Enclosed" to ensure safe delivery. Disk labels must include type of software, author and document name. They must also provide a complete copy including all illustrations, flow charts and diagrams printed on 81/2 x 11 inch letter-sized paper. Papers without graphics, tables, and/or flowcharts may be attached as a word document on the official ICAK e-mail system.
10. Authors may only use text programs (i.e. Microsoft Word, WordStar, WordPerfect, MacWrite, etc.) to submit a paper on computer disk, but may use either IBM/DOS or Macintosh programs and diskettes. (Documents saved in a "page-layout" program are not acceptable.) The document for submission must be saved in a "text-only" format. All headers, footers and page numbers should be removed as should all italics, underlining, bold-face and any other special font formatting. If special formatting is required to preserve the tone of the paper, it should be present in the paper copy sent with the disk and it will be re-applied after the paper has been incorporated into the Proceedings of the ICAK-U.S.A.

11. Any computer-generated artwork to be included in the paper must be removed from the document before it is saved in the "text only" format. Artwork must be saved separately in either IBM/DOS or Macintosh formats as EPS, EPSF, GIF, TIF, TIFF, PIC OR PICT file types. The paper copy of the submission must include a print of the complete artwork and its correct placement. The artwork will be re-inserted into the paper in approximately the same location in the document, where space allows.

The articles to be published should be sent in duplicate (the original and one copy), to ICAK-U.S.A., 6405 Metcalf Ave., Suite 503, Shawnee Mission, KS 66202-3929, (913)384-5336.

Applied Kinesiology Status Statement

International College of Applied Kinesiology-U.S.A.

The International College of Applied Kinesiology-U.S.A. provides a clinical and academic arena for investigating, substantiating, and propagating A.K. findings and concepts pertinent to the relationships between structural, chemical, and mental factors in health and disease and the relationship between structural faults and the disruption of homeostasis exhibited in functional illness.

A.K. is an interdisciplinary approach to health care which draws together the core elements of the complementary therapies, creating a more unified approach to the diagnosis and treatment of functional illness. A.K. uses functional assessment measures such as posture and gait analysis, manual muscle testing as functional neurologic evaluation, range of motion, static palpation, and motion analysis. These assessments are used in conjunction with standard methods of diagnosis, such as clinical history, physical examination findings, laboratory tests, and instrumentation to develop a clinical impression of the unique physiologic condition of each patient, including an impression of the patient's functional physiologic status. When appropriate, this clinical impression is used as a guide to the application of conservative physiologic therapeutics.

The practice of applied kinesiology requires that it be used in conjunction with other standard diagnostic methods by professionals trained in clinical diagnosis. As such, the use of applied kinesiology or its component assessment procedures is appropriate only to individuals licensed to perform those procedures.

The origin of contemporary applied kinesiology is traced to 1964 when George G. Goodheart, Jr., D.C., first observed that in the absence of congenital or pathologic anomaly, postural distortion is often associated with muscles that fail to meet the demands of muscle tests designed to maximally isolate specific muscles. He observed that tender nodules were frequently palpable within the origin and/or insertion of the tested muscle. Digital manipulation of these areas of apparent muscle dysfunction improved both postural balance and the outcome of manual muscle tests. Goodheart and others have since observed that many conservative treatment methods improve neuromuscular function as perceived by manual muscle testing. These treatment methods have become the fundamental applied kinesiology approach to therapy. Included in the A.K. approach are specific joint manipulation or mobilization, various myofascial therapies, cranial techniques, meridian therapy, clinical nutrition, dietary management, and various reflex procedures. With expand-

ing investigation there has been continued amplification and modification of the treatment procedures. Although many treatment techniques incorporated into applied kinesiology were pre-existing, many new methods have been developed within the discipline itself.

Often the indication of dysfunction is the failure of a muscle to perform properly during the manual muscle test. This may be due to improper facilitation or neuromuscular inhibition. In theory some of the proposed etiologies for the muscle dysfunction are as follows:

- Myofascial dysfunction (micro avulsion and proprioceptive dysfunction)
- Peripheral nerve entrapment
- Spinal segmental facilitation and deafferentation
- Neurologic disorganization
- Viscerosomatic relationships (aberrant autonomic reflexes)
- Nutritional inadequacy
- Toxic chemical influences
- Dysfunction in the production and circulation of cerebrospinal fluid
- Adverse mechanical tension in the meningeal membranes
- Meridian system imbalance
- Lymphatic and vascular impairment

On the basis of response to therapy, it appears that in some of these conditions the primary neuromuscular dysfunction is due to deafferentation, the loss of normal sensory stimulation of neurons due to functional interruption of afferent receptors. It may occur under many circumstances, but is best understood by the concept that with abnormal joint function (subluxation or fixation) the aberrant movement causes improper stimulation of the local joint and muscle receptors. This changes the transmission from these receptors through the peripheral nerves to the spinal cord, brainstem, cerebellum, cortex, and then to the effectors from their normally-expected stimulation. Symptoms of deafferentation arise from numerous levels such as motor, sensory, autonomic, and consciousness, or from anywhere throughout the neuraxis.

Applied kinesiology interactive assessment procedures represent a form of functional biomechanical and functional neurologic evaluation. The term "functional biomechanics" refers to the clinical assessment of posture, organized motion such as in gait, and ranges of motion. Muscle testing readily enters into the assessment of postural distortion, gait impairment, and altered range of motion. During a functional neurologic evaluation, muscle tests are used to monitor the physiologic response to a physical, chemical, or mental stimulus. The observed response is correlated with clinical history and physical exam findings and, as indicated, with laboratory tests and any other appropriate standard diagnostic methods. Applied kinesiology procedures are not intended to be used as a single method of diagnosis. Applied kinesiology examination should enhance standard diagnosis, not replace it.

In clinical practice the following stimuli are among those which have been observed to alter the outcome of a manual muscle test:

- Transient directional force applied to the spine, pelvis, cranium, and extremities
- Stretching muscle, joint, ligament, and tendon
- The patient's digital contact over the skin of a suspect area of dysfunction termed therapy localization
- Repetitive contraction of muscle or motion of a joint
- Stimulation of the olfactory receptors by fumes of a chemical substance
- Gustatory stimulation, usually by nutritional material
- A phase of diaphragmatic respiration
- The patient's mental visualization of an emotional, motor, or sensory stressor activity
- Response to other sensory stimuli such as touch, nociceptor, hot, cold, visual, auditory, and vestibular afferentation

Manual muscle tests evaluate the ability of the nervous system to adapt the muscle to meet the changing pressure of the examiner's test. This requires that the examiner be trained in the anatomy, physiology, and neurology of muscle function. The action of the muscle being tested, as well as the role of synergistic muscles, must be understood. Manual muscle testing is both a science and an art. To achieve accurate results, muscle tests must be performed according to a precise testing protocol. The following factors must be carefully considered when testing muscles in clinical and research settings

- Proper positioning so the test muscle is the prime mover
- Adequate stabilization of regional anatomy
- Observation of the manner in which the patient or subject assumes and maintains the test position
- Observation of the manner in which the patient or subject performs the test
- Consistent timing, pressure, and position
- Avoidance of preconceived impressions regarding the test outcome
- Nonpainful contacts — nonpainful execution of the test
- Contraindications due to age, debilitative disease, acute pain, and local pathology or inflammation

In applied kinesiology a close clinical association has been observed between specific muscle dysfunction and related organ or gland dysfunction. This viscerosomatic relationship is but one of the many sources of muscle weakness. Placed into perspective and properly correlated with other diagnostic input, it gives the physician an indication of the organs or glands to consider as possible sources of health problems. In standard diagnosis, body language such as paleness, fatigue, and lack of color in the capillaries and arterioles of the internal surface of the lower eyelid gives the physician an indication that anemia can be present. A diagnosis of anemia is only justified by laboratory analysis of the patient's blood. In a similar manner, the muscle-organ/gland

association and other considerations in applied kinesiology give indication for further examination to confirm or rule out an association in the particular case being studied. It is the physician's total diagnostic work-up that determines the final diagnosis.

An applied kinesiology-based examination and therapy are of great value in the management of common functional health problems when used in conjunction with information obtained from a functional interpretation of the clinical history, physical and laboratory examinations and from instrumentation. Applied kinesiology helps the physician understand functional symptomatic complexes. In assessing a patient's status, it is important to understand any pathologic states or processes that may be present prior to instituting a form of therapy for what appears to be functional health problem.

Applied kinesiology-based procedures are administered to achieve the following examination and therapeutic goals:

- Provide an interactive assessment of the functional health status of an individual which is not equipment intensive but does emphasize the importance of correlating findings with standard diagnostic procedures
- Restore postural balance, correct gait impairment, improve range of motion
- Restore normal afferentation to achieve proper neurologic control and/or organization of body function
- Achieve homeostasis of endocrine, immune, digestive, and other visceral function
- Intervene earlier in degenerative processes to prevent or delay the onset of frank pathologic processes

When properly performed, applied kinesiology can provide valuable insights into physiologic dysfunctions; however, many individuals have developed methods that use muscle testing (and related procedures) in a manner inconsistent with the approach advocated by the International College of Applied Kinesiology-U.S.A. Clearly the utilization of muscle testing and other A.K. procedures does not necessarily equate with the practice of applied kinesiology as defined by the ICAK-U.S.A.

There are both lay persons and professionals who use a form of manual muscle testing without the necessary expertise to perform specific and accurate tests. Some fail to coordinate the muscle testing findings with other standard diagnostic procedures. These may be sources of error that could lead to misinterpretation of the condition present, and thus to improper treatment or failure to treat the appropriate condition. For these reasons the International College of Applied Kinesiology-U.S.A. defines the practice of applied kinesiology as limited to health care professionals licensed to diagnose.

Approved by the Executive Board of the International College of Applied Kinesiology-U.S.A., June 16, 1992.

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Division I – Informative Papers

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Aluminum Toxicity: A Constellation of Effects

William Conder, D.C.

Abstract

A method for determining aluminum toxicity is described. The possible side effects of aluminum toxicity are explored and discussed along with an overview of related conditions. A remedial treatment plan is suggested.

Introduction

Aluminum toxicity has been associated with Alzheimer's disease and fibromyalgia although "scientific proof" has not shown it to be the cause of either. More recent theories have overshadowed the aluminum one. In any case, aluminum, which is abundant in the natural environment and seems to be present in our food, cosmetics, and in the work place, is not associated with normal metabolic function.

My first clue in clinical practice in suspecting aluminum as a metabolic toxin was presented by a patient who, in her mid 80s, was ranked #2 in the world in seniors doubles tennis. She presented no symptoms that one normally would associate with either Alzheimers or fibromyalgia - in fact, she was and still is especially alert and active. But after some persistence on both our parts a "constellation of effects" began revealing itself.

Briefs

Case #1: An active and alert female octogenarian presented with fatigue that she said she did not experience all of the time but that came upon her in the course of her tennis matches sooner than she thought was normal. She said that she had a very acid stomach at times and was taking Mylanta to correct the problem. She reported engaging in estrogen replacement therapy peroidically throughout the year. On a subsequent visit, she reported having momentary black-outs a few days prior which she could not explain. Exhaustive conventional cardiovascular testing and blood work results all were normal.

Case #2: A twenty-six year old female diagnosed by conventional methods as having multiple sclerosis, seeking an alternative to pharmaceutical drugs, presented with sensory disturbances on the skin surface of her arms and legs, in addition to afternoon fatigue and clumsiness normally associated with MS. The patient described the sensory disturbances as cold spots about the size of

a quarter or larger. She said that the spots would appear in different locations on her arms and legs and that they were especially noticeable in refrigerated air environments. When asked about nutritional supplementation, the patient reported taking a mineral supplement called "Gold Stake" on the recommendation of a nutritionist whom she had consulted.

Case#3: A male in his mid-thirties presented with muscle stiffness, fatigue, and voice changes. The voice changes, he said, had to do with his inability to reach high notes or sing in a falsetto voice as he had been accustomed for much of his life. The patient reported that his work involved grinding aluminum motors and that he often had done this without a protective mask. Further, he reported taking several nutritional supplements including an encapsulated concentrated fruit substance that was high in potassium, and drinking a colloidal mineral supplement promoted by the "Dead Doctors Don't Lie" company.

Case #4: A female in her late twenties presented with muscle stiffness and cramping, muscle fatigue, chronic yeast infections, and reflux esophagitis. When asked about her medication history, she reported that, since her father was a pharmaceutical company sales rep, she had easy access to antibiotics and stomach antacid medications both of which she consumed often.

Case #5: A female in her early teens presented with painful muscle tightness and periods of fatigue. She had a persistent rash on her head around her ears, on the backs of her arms, and on other parts of her body from time to time. As a child, due to chronic ear infections, she was prescribed anitbiotics. She had been diagnosed dyslexic. When younger, she was an avid gymnast; presently she is engaged in "jazz" dance classes. She reported using an aluminum-containing anti-perspirant. Her mother suffers from rheumatoid arthritis and reports having ingested 15 or more aluminum-buffered aspirin per day during her pregnancy with her daughter.

Case #6: A female approximately 20 years of age presented with an incredible list of medical diagnoses, including systemic lupus erythematosis, reflux esophagitis, chronic yeast infection, dyslexia, hypoglycemia, polycystic ovarian disease, scoliosis, chronic fatigue, migraine.... The list of drugs that had been prescribed for her various diagnoses includes prednisone, plaquenil, birth control pills, anti-biotics, and anti-inflammatories. She reported having to use anti-biotics very frequently as a child and that for a one year period at age 10 she used anti-biotics daily on the recommendation of her doctor. She reported using an anti-perspirant that contained aluminum. Recently she consulted a nutritionist who prescribed various nutritional supplements and herbs that resulted in her ingesting 55 tablets or capsules each day which, of course, made her vomit. If anyone doubts that abuse happens in our health care system, please refer him/her to this case.

Applied kinesiology evaluation revealed the following in all of the above cases: Hypoadrenia (positive Ragland's, sartorius muscle weakness, positive adrenal neurolymphatic reflex points anterior and posterior), hiatal hernia,

aerobic deficiency, and electromagnetic field sensitivity (positive indicator muscle test upon introducing a quartz wrist watch anywhere on the patient's body, including the wrist). All-muscles-strong, dysbiosis, multiple chemical sensitivities, and carbohydrate sensitivity also was detected in most of the cases.

Methods and Materials

Using an indicator muscle test and homeopathic test kits,[1] the determination of aluminum toxicity is made based on a pattern of positive findings.

Any normotonic indicator muscle and a doctor-initiated test can be used. Prior to testing, therefore, the patient must be corrected for complications that will affect the muscle test outcome, complications such as upper cervical subluxation, switching, spinal fixations, sacro-iliac subluxation, all-muscles-strong, and so on. The muscle should weaken under the south pole of a diagnostic magnet. An all-muscles-strong condition can be temporarily remedied by placing a few drops of a homeopathic stress remedy under the tongue.

Homeopathic nutritional and organ test kits are used containing the following test vials:

1. 30X homeopathic dilutions of aluminum, calcium, magnesium, potassium, sodium, phosphorous; and 200X dilutions of cobalt and cuprum.
2. 30X homeopathic dilutions of thiamin nitrate, riboflavin, and pyridoxine-HCl; and a 200X dilution of manganese.
3. 30X homeopathic dilutions of heart, thyroid, and parathyroid tissue.

The apparent weakening of a muscle (that is, the testee's muscle's inability to remain contracted against the testor's applied force on the muscle to lengthen it) relative to contact with, for example, calcium 30X, is a positive indication for calcium excess. The apparent weakening of a muscle relative to contact with calcium 30X plus cobalt 200X and cuprum 200X is a positive indication for calcium deficiency. In other words, using the mineral dilution by itself with the positive muscle test indicates relative excess, while using the mineral dilution with cobalt 200X and cuprum 200X indicates deficiency. This pattern holds true for all minerals in the test kit.

The apparent weakening of the indicator muscle relative to contact with thiamine nitrate, for example, is an indicator of vitamin B-1 excess, while the weakening of an indicator muscle relative to contact with thiamine nitrate plus manganese 200X is a positive indication for B-1 deficiency, analogous to the mineral procedure and outcome.

The apparent weakening of an indicator muscle relative to contact with one of the organ or gland test vials indicates organ stress.

The procedure for testing is as follows. With the patient in a comfortable position, place the test vials as indicated above on or over the patient's stomach alarm point and test the indicator muscle. Test each mineral individually and each plus cobalt 200X and cuprum 200X; test each of the B vitamins indicated above and then test each plus manganese 200X; test each of the organ and gland test vials.

The following pattern of positive indications is found consistently in the patient who suffers from aluminum toxicity: excess aluminum, deficient magnesium, excess and deficient calcium, excess potassium; deficient B-1, B-2, B-6; and heart, thyroid, and parathyroid stress. Sodium may be found deficient and phosphorous may be either deficient or excesssive or both. This pattern was found in all of the cases cited above.

Discussion

The weakening of an indicator muscle relative to contact with a homeopathic dilution of a substance may be an indication that the substance is actually present in the body in relative amounts, or it may indicate a resonance between the substance and some thing or process in the body. The dilution of the substance also has specific significance. The exact meaning of this information, however, can be elusive. But a picture can be drawn about a maladaptive process that one observes in several patients with similar symptoms and the same reaction to 9 or 10 homeopathic dilutions with specific indications. When all of this evidence pieced together corroborates conventional knowledge, we have a tool for monitoring a complex condition.

It is proposed here that aluminum toxicity results in an altered or deficient energy state in the cells of the body, caused by the presence of aluminum with an attendant deficit of magnesium. Exogenous and endogenous factors in the patient's life including hormone imbalance, exposure to antibiotics, dysbiosis, "stress," diet, and so on, contribute to the variety of manifestations and symptoms that are observed. The addition of aluminum toxicity to these other factors, however, seems to crystalize or precipitate into conditions which we call fibromyalgia, chronic fatigue syndrome, or Alzheimer's disease.

Stryer[2] says ATP is the energy currency in all biological systems, including that of the human organism. It has two phosphate bonds that release a large amount of energy when hydrolyzed to ADP or AMP. The ATP-ADP cycle is the fundamental mode of energy exchange, and ATP is the principal immediate donor of free energy. Continuously formed and consumed, its turnover rate is very high. Some ATP analogs drive other biological reactions but, for the most part, nothing happens without ATP.

The ATP - ADP system is the medium of the phosphate group transfer potential, the relative tendency of phosphate groups in different phosphorylated compounds to be transferred to acceptor molecules. ADP accepts phosphate

from high energy phosphate compounds forming ATP which donates its terminal phosphate to an acceptor molecule. Biochemistry textbooks clearly point-out the importance of magnesium in the phosphorylation of ADP to form ATP.

According to Stryer, the driving force of oxidative phosphorylation is the electron transfer potential of NADH or FADH2 relative to that of O2. Electrons derived from the intermediates of the citric acid cycle "flow down" a chain of enzyme carriers that begins with NADH or FADH2 to carriers of successively lower energy to O2. The energy of these electrons is conserved in oxidative phosphorylation in the ATP phosphate energy bond. The rate of oxidative phosphorylation is determined by need for ATP.

Normally, the electron carrier at the substrate-end of the electron transport chain is the most reduced member of the chain while the electron carrier at the O2 end is mostly oxidized. When the chain is blocked by an "inhibitor," the reduced end becomes more reduced and the oxidized end becomes more oxidized. This inhibition does not increase the electron transport potential, however, but compromises it at the site of the inhibitor. Several compounds are known to inhibit electron transport, including antibiotics (at least several different kinds including antimycin which is from the Streptomyces yeast), barbiturates, pesticides, cyanide, and carbon monoxide.[3]

Aluminum has an affinity for phosphate groups and can block the utilization of phosphate for ATP synthesis and the phosphorylation of thiamin, riboflavin, and pyridoxine, which are essential for electron transport in the respiratory chain. Adequate magnesium levels apparently protect against this effect of aluminum, according to Abraham and Flechas.[4]

Boericke's Materia Medica, a reference book used by homeopaths as an aid in prescribing remedies, gives the following indications for homeopathic Alumina (aluminum oxide): "...tendency to paretic muscular states..., sluggish functions..., confused as to personal identity..., inability to walk except with eyes open..., throat- dry, sore; food cannot pass, esophagus contracted, feels as if splinter or plug in throat... tenacious mucus..., heartburn, (stomach) feels constricted. Can swallow but small morsels at a time. Constriction of esophagus. Colic..., left sided abdominal complaints."[5] Although these symptoms have been taken out of the context of a complete alumina symptomatology, the evidence seems to suggest hiatal hernia, laryngeal muscle fatigue, general muscle fatigue and paralysis, and mental confusion.

I find hiatal hernia frequently with aluminum toxicity. The obvious scenario implies that, because one has a hiatal hernia, aluminum-containing antacids are consumed to reduce esophageal irritation caused by reflux of stomach contents, and thus one is exposed to aluminum after the incidence of hiatal hernia. However, it appears also that ingestion of aluminum-containing antacid substances or even exposure to aluminum from anti-perspirants or food supplements weakens the muscular esophageal hiatus of the diaphragm and causes a hiatal hernia.

The laryngeal muscles are among the first to experience compromise from exposure to aluminum presumably due to their high demand for oxygen and ATP. This demand by highly active muscles may explain how aluminum can cause hiatal hernia: Abraham and Flechas[6] point out that oxygen deficiency enhances gluconeogenesis and breakdown of muscle protein in fibromyalgia patients. If this process occurs in the muscle of the esophageal hiatus of the diaphragm what we describe as hiatal hernia would result.

The importance of calcium-magnesium balance is acknowledged universally. Deficient intracellular magnesium allows for increases in intracellular calcium which mitichondria accumulate in order to reduce cytosol levels.[7] In the mitichondria, calcium binds to phosphate, thus decreasing its availability for oxidative phosphorylation of ADP, and uses up electrons that ordinarily would be available for ATP synthesis. Ray Peat, Ph.D., points out that calcification of the mitochondria causes cell death.[8] Increases in intracellular calcium precede cell death, is a defining factor in the aging process, and is implicated in Alzheimer's disease. In muscle, the Ca++ concentration in the cytosol is lowered during recovery from contraction by an ATP driven Ca++ pump.

Magnesium deficiency stimulates parathyroid hormone secretion in the same way that calcium deficit does, although it is much less potent.[9] In the kidney, Mg++ reabsorption is increased by elevated parathyroid hormone levels and decreased by a fall in parathyroid hormone levels. Chronic magnesium depletion ultimately inhibits parathormone synthesis. Hypothetically, in the sense that there is an increase in intracellular calcium, it can be imagined how the body might respond as indicating that there exists excessive amounts, especially relative to magnesium deficit, and subsequently thyroid calcitonin function is alerted in an attempt to decrease calcium levels while, concurrently, parathyroid hormone is trying to respond to magnesium deficit. In effect, a compartment shift of calcium due to magnesium deficiency causes calcium metabolism dysfunction throughout the body and "alarms" thyroid and parathyroid glands.

According to Peat,[10] estrogens inhibit thyroid function and interfere with the body's use of oxygen. Therefore, estrogen may play a role in depressing ATP production by a relative depression of electron transport. Estrogen seems to have a wasting effect on magnesium, naturally predisposing women to aluminum toxicity. Fibromyalgia, chronic fatigue, and mitral valve prolapse occur in women predominately. Impaired thyroid function may be a cause or an effect of anaerobic metabolism and hypoxia.

High intracellular K+ is required for many cell functions.[11] The Na+-K+ cell membrane gradient is maintained by a "pump" which requires ATP for its function. When K+ extracellular concentration rises one may become hyperkalemic. Hyperkalemia can lead to cardiac arrest as it diminishes the resting potential of cardiac cells, increasing cell excitability. Increased extracellular K+ stimulates insulin and epinephrine secretion and aldosterone release to prevent hyperkalemia. Damaged cells release potassium into the blood.

After only two weeks, Case #6 has expressed and demonstrated a dramatic improvement in her "energy" (that is, her fatigue has abated significantly) and in her ability to concentrate on school work. Examination of the nutritional supplements that she had been prescribed by a nutritionist revealed several containing calcium and yeast-derived B vitamins, and one intended for "ligament support" that contained supplemental mucopolysaccharides.

Other cases of aluminum toxicity also have responded to magnesium hydroxide and malic acid supplementation in a 1 to 2 month period. As indicated above, the toxicity is cleared before the myalgia is relieved. However, fatigue may be lifted in a week. The specificity of response to treatment seems to be a mirror of the specificity of symptom manifestation. Therefore, I look for a change in homeopathic indicators as a way of monitoring patient progress. That is, I look for normalization of the B vitamin relative deficiency, potassium excess, sodium deficiency, calcium excess/deficiency, magnesium deficiency, aluminum excess, and alarm states of thyroid, parathyroid, and heart. For continued supplementation, I recommend magnesium, at least periodically, especially for women. If there is a need or desire to supplement calcium also, I recommend a 2:1 ratio of magnesium to calcium.

Homeopathy and the indicator muscle test can be a valuable tool in the discovery of a maladaptive process and in monitoring its correction. Uncovering the root cause of a disease process with a variety of manifestations and symptoms makes it possible to apply a treatment that is appropriate and efficient without exposing the patient to unnecessary and possibly harmful side effects even from natural, nutritional substances.

I am reminded of a theory that the fall of the Roman empire can be traced to the unintentional lead poisoning of its citizens. Evidence indicating the metabolic toxicity of aluminum, in my opinion, is strong. Aluminum seems to be opportunistic in that it is more toxic in the environment of a weakened metabolism. The ensuing disease process cannot be halted by throwing vitamins, minerals, or glandular tissue at its symptoms. In fact, this kind of treatment may deepen the disease. In addition to correcting hiatal hernia, and dysbiosis and encouraging the patient to "not do" certain things (such as consume antacids, antibiotics, use aluminum containing anit-perspirants, get stressed, and so on) using malic acid with moderate amounts of magnesium hydroxide and recommending measures for stress reduction appears to be the best basic course of action for treatment.

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Commentary: In Praise of Current Corruptions[1]

William Conder, D.C.

The best discoveries are made accidentally, coincidentally, unexpectedly, intuitively. One sets out with a preconceived notion, but something different arises that may or may not be related to the original thing sought. This spontaneity stimulates excitement and interest. Keepers of the established knowledge come along later and attempt to conform the discovery to the language, beliefs, and paradigm of the status quo. Unless and until it is translated into the terms of conventional understanding the revelation is not tolerated or accepted.

The translation into conventional understanding seems to be a very important component of determining the scientific factuality of a thing. However, a proposition is scientific not because its contents comply with the concepts of convention, as we tend to assume. It's scientific because it is stated in such a way that it can be investigated by others. Outcome either tends to support or tends not to support an hypothesis.

We are interested in having A.K. validated by scientific research for a number of reasons which we have come to accept based on convention. Possibly we feel a need to vindicate the technique to those who think A.K. is a kind of "channeling" or dowsing, or to those who describe A.K. as "where you put a potato on a guy's chest and his arm goes down," as did an adjusting technique instructor of mine in chiropractic college just a few years ago. Or maybe it's so we can play the insurance game better.

Some want to show how the neuro-physiological response, that is, the weakening of a previously strong muscle in response to a specific stimulation, can be explained in conventional terms. We have uncovered neurological pathways that help to explain the phenomenon. For some reason, the appearance of connectedness between places in the body via the hardwiring of the nerves makes what happens more believable.

The kind of research required by convention breaks down whole systems into parts, makes abstract observations based on pre-conceptions, and is limited in its ability to interpret relationships. These shortcomings are side-effects of the tools used in Western scientific research. Applied kinesiology though, by its nature, is a whole system and much of the power of the technique is derived from this wholeness. Francis Bacon, the acknowledged father of experimental science, said, "...men never stop abstracting Nature until it becomes potential matter, without form; and, on the other hand, never cease from dissecting Nature until they arrive at the atom...."[2]

We are led to believe incorrectly that scientific research yields "proof," a kind of ultimate truth. The etymology of "proof" is probe or test. The proof is in the whole pudding not merely one ingredient of it. Humpty Dumpty fell and could not be reassembled by any means.

Science is a way of communicating our observations so that others can test them. Still, we can be fooled and misled by what we think we find. For example, the germ theory is derived from what one might describe as very good science. There's no question that "germs" exist and that they are present and participate in many disease processes. But now we question that "germs" are the cause of disease, especially in recent years as we have begun to understand the importance of biological terrain, that is, the environment in which germs are found in the body.

The "final common pathway" concept may be another instance where we have abstracted the tree from the forest. There is no doubt that it describes the route of motor impulse to the muscle. Walter Schmitt, Jr., D.C., in his article "Muscle Testing Equals Functional Neurology" says, "Changes in muscle strength only occur when we affect nerve pathways which eventually synapse at these anterior horn motorneurons." He continues in the following paragraph, "While others speak of 'body energies,' etc., we know that we are ultimately dealing with the nervous system. All the changes we observe are monitored and mediated through the nervous system."[3]

Robert Becker, M.D. probably would agree. However, Dr. Becker's research into the bio-electromagnetic field of vertebrates, including humans, has expanded our definition of 'nervous system' to include the steady-state DC current and magnetic field emanation which seem to be a function of the perineural cells, not the neurons themselves. Dr. Becker says, "It also appears possible to propose the heretical concept that it is the analog perineural cell system within which the integration of all nervous activity occurs, and which contains the foundation for such higher nervous functions as consciousness, creativity and paranormal experiences."[4] Dr. Becker also investigated the acupuncture meridian system and found that about half of the points measured were real and could be related to DC electrical function.

In his book *Cross Currents*, Dr. Becker reports on what is called the 'readiness potential.' "Recent experiments have shown that when a human subject is told to make a certain muscular movement after being given a signal, there is an increase in negative DC after the signal, but that this occurs almost a half-second *before* the muscular action is performed. It appears that the DC is somehow involved in getting the neurons ready to fire the command to move the muscles. This phenomenon, which has become known as the 'readiness potential,' seems to imply that the DC system *commands* the nerve-impulse system."[5]

Citing the experiments of neuroscientist Benjamin Libet, Dr. Becker concludes "The DC system thus appears to be, in fact, the place where the actual command decision is made."[6] Based on this information, these "body ener-

Walther points out that in hypoadrenia one expects to see decreased Na+ and increased K+ levels.[12]

Mitral valve prolapse syndrome, or floppy valve, is a degenerative change present in 1% of the population, especially young women.[13] It is the result of accumulation of mucopolysaccharides in the valve leaf. Clinical mitral incompetence is rare, and results from rheumatic heart disease, although calcification of the valve ring in the elderly may cause mitral incompetence. Abraham and Flechas report an association of mitral valve prolapse with fibromyalgia. Peat says that mucopolysaccharides in pathological excess can be induced by hormones and environmental factors. "TSH, estrogen, cortisol, and thyroid antagonists all increase the production of mucopolysaccharides in a variety of tissues."[14]

According to Abraham and Flechas, hypothyroidism is very common in fibromyalgia patients and is associated with decreased malate dehydrogenases, the enzymes responsible for oxidizing malate to oxaloacetate in the citric acid cycle and providing reducing equivalents in the mitochondria. Some evidence suggests that in fibromyalgia patients decreased malate dehydrogenases cause relative malic acid deficiency. Malic acid is an aluminum chelator and is most effective in decreasing brain aluminum levels.[15]

Fibromyalgia patients have elevated urine catecholamines and chronic, generalized hypoxia.[16] Stressors, perceived stress, pain, hypoxia, and hypoglycemia can activate catecholamines. Catecholamine synthesis and reuptake for storage require ATP.[17]

Sensitivity to artificial electromagnetic fields such as that found in a battery-powered wrist watch may be attributed to aluminum's high electrical conductivity and its strong attraction for phosphate. The brain and spinal cord are rich in phosphatidic esters called cephalins. Sphingomyelin is a major phospholipid abundant in the myelin of the Schwann cells of the peripheral nervous system. The effect of aluminum in these phosphate-containing perineural structures might be to "short" electrical processes in the nervous system or to make the area of intoxication hyper-sensitive to artificial magnetic fields present in the patient's environment. Becker[18] points out that each individual cell derives timing information from the cycles of the earth's natural magnetic field and that artificial magnetic fields have major biological effects on cells. Aluminum intoxication of the perineural cells, which are known to conduct a steady state DC current and emanate an electromagnetic field, would alter their function.

The treatment for aluminum toxicity that I have found to be effective is supplementation with malic acid and magnesium hydroxide tablets,[19] or a liquid[20] containing malic acid, citric acid, and magnesium gluconate. Apparently, Abraham and Flechas promote a supplement made by Optimox Corporation.[21] In my experience, magnesium gluconate and magnesium citrate without malic acid are either only mildly effective or ineffective. I have no experience with magnesium malate.

Working to correct hiatal hernia and dysbiosis must occur concurrently. I do not supplement with calcium but occasionally will provide supplementation with the biologically active forms of the B vitamins[22] in question. Also, I recommend massage, rest, and truely aerobic exercise (such as easy walking for 20 to 30 minutes once or twice per day 4 or 5 days per week). I do not believe that I have exhausted all treatment options, however.

It has been my experience that the positive indication for aluminum toxicity disappears in 4 to 6 weeks under the best of circumstances, although the myalgia and other muscle related symptoms take considerably longer to abate. The removal of aluminum by the malic acid and the correction of the magnesium deficiency by supplementation usually correct the relative imbalance in the other micronutrients discussed.

Conclusion

The defining factor in aluminum toxicity seems to be relative magnesium deficiency. Exposure subsequently to aluminum from food supplements, cooking utensils, anti-perspirants, antacid medications, processed salt, and so on, may result in myalgia, fatigue, and voice changes. If one has a history of anti-biotic use and a resultant candidiasis dysbiosis with carbohydrate sensitivity the condition becomes more complex, especially for women whose hormone profile is more inviting of candida infestation than that of men. Whether the specific anti-biotics used actually inhibit mitochondrial electron transport as does antimycin, is a matter of speculation. The use of estrogen supplements amplifies this maladaptive process in its effects on cell metabolism and thyroid function. In this case, insistence on a singular cause-effect relationship can blind us to multiple "environmental" contributors to disease.

In cases #1, #2, and #3 above, supplementation with magnesium hydroxide and malic acid resulted in alleviation of the homeopathic indication of aluminum toxicity and symptoms of black-outs (#1), cold spots on the skin (#2), and in loss of vocal range (#3) in one month or less. Muscle stiffness and fatigue gradually disappeared over a much longer period of time. The mineral capsule supplement mentioned in #2 and the colloidal mineral supplement in #3 both contain significant amounts of aluminum oxide.

Case #4 did not return after her second office visit. She appeared to be highly motivated as a professional and to excel as a dancer. I think she was not accepting of the recommendations I made, which included dietary changes; discontinuation of birth control pills, antibiotics, and stomach antacids; changing her exercise routine to include only easy aerobic activity; stress reduction at work; and so on.

Case #5 is responding slowly to treatment. I think that this somewhat retarded response is due to her obligations as a dance student and performer which require that she engage regularly in rather intense anaerobic physical activity.

gies" would seem to play a very important role in muscle function, muscle testing, so-called gamma-2 muscle testing in particular, and probably many other functions.

The germ theory and the final common pathway explanation represent what philosophers would call "efficient cause" (that which initiates a change). Western science has operated on efficient cause almost exclusively for hundreds of years. It represents a linear, continuous, connected relationship as the only, real cause. This kind of scientific system is difficult to maintain because it takes a great deal of energy to subdue and ignore a multitude of factors that contribute to the manifestation of the phenomenon in question.

II

All tools, techniques, technologies, and artifacts are extensions of human form or function and reflect our form and function like a mirror. As we use these technologies we begin to think that human form and function is like that of the extension, and for example, we identify the body as a machine or the brain and nervous system as a computer. But the body is not a machine and the brain and nervous system are not a computer. (As one astute observer said, "It is one thing for our robots to function more and more like humans, but it is something entirely different for humans to function more and more like robots.") Narcissus not only did not know that the reflection in the water was of himself, he also did not know that it was a reflection.

Tools, technologies, and techniques mediate our experience; that is, we interpose them between us and the world, and this requires us to alter our sense perception to accommodate them. On the other hand they are important to us in our requirement for objectivity. They are the external translators of experience and observation that make it possible for others to examine our experience and observations. But the word/tool/technique itself distorts our perception of what it tries to express/measure/effect. Therefore, we must work to understand the side-effects of our tools, both hardware and software, even as we consider the results of our research.

A.K. is a technique, or better said, a tool box of techniques of communication of information (which may be considered the final cause of technologies and techniques) that involves very little external mediation but lots of mediation by the human body's normal function (of muscle, the neuron and its impulse, the perineuron and its DC current and magnetic field). It is analogous to spoken, verbal communication, the primary and possibly the original tool of communicating and translating personal experience and observation to others. Introducing the steady-state DC current and field as an environment of "information" about the body-mind to which we have access via the neurophysiological response increases our comprehension of what's going on in the body-mind.

Using the neuro-physiological response relative to various questions that can be asked of the body in the way of challenges, reflex points, homeopathic resonances, and so on, is as scientific as it gets. The first thing we do with patients (after getting insurance information) is ask them what the problem is. Unfortunately, most of them don't know - all they know is they hurt or they feel bad. We've lost the kind of sensitivity we need to answer this question accurately. It seems quite appropriate, then, for us to continue to ask questions of the patient's body in a way that gives us access to "sub-conscious" information storage.

Translating A.K. into the neurological paradigm may aid in defining an aspect of the technique and help us to understand a freeze-framed function of the muscle test but it doesn't give insight into the relationship between the acupuncture meridian system, or emotional recall, or homeopathic filters and the muscle test. The more defined a language becomes, the less it is spoken. For balance, when we move in the interest of increasing definition, we also must move appositively toward greater comprehension. "...our labour must be entirely redirected to investigating and noting the similarities and analogies of things, both in whole things and in their parts. For it is they that unify Nature and are the origin and foundations of the sciences."[7]

(This commentary is not an attempt to encourage one to stop doing what one is doing and do what someone else thinks one should. It is an attempt to encourage one not to put all of one's humpty-dumpty eggs in one basket. The neurologists' coup d'etat seems to have succeeded without bloodshed, apparently on the promise that it would "validate" A.K. What's needed is a guerrilla resistance to provide honest apposition to hold them to their promises.)

The neuro-physiological response of the muscle test, I propose, is not a function only of the hardwired nervous system, the "bio-computer", and "biomechanics," but, more comprehensively, is a function of the electromagnetic field emanation of the steady state DC current found in the perineural cells. The 'final common pathway' of the hardwired neurology is anticipated by this steady state DC current and field which participate in all systems and functions, neuro-physiological and otherwise. It is the primary environment of information and communication in the body and, probably, between bodies. As a steady state DC resonant field, it is integrative of the sensory input of the AC hardwired neuron system. Our investigation of A.K. should include this field and its action.

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A Muscular Imbalance Approach to Cranial Faults

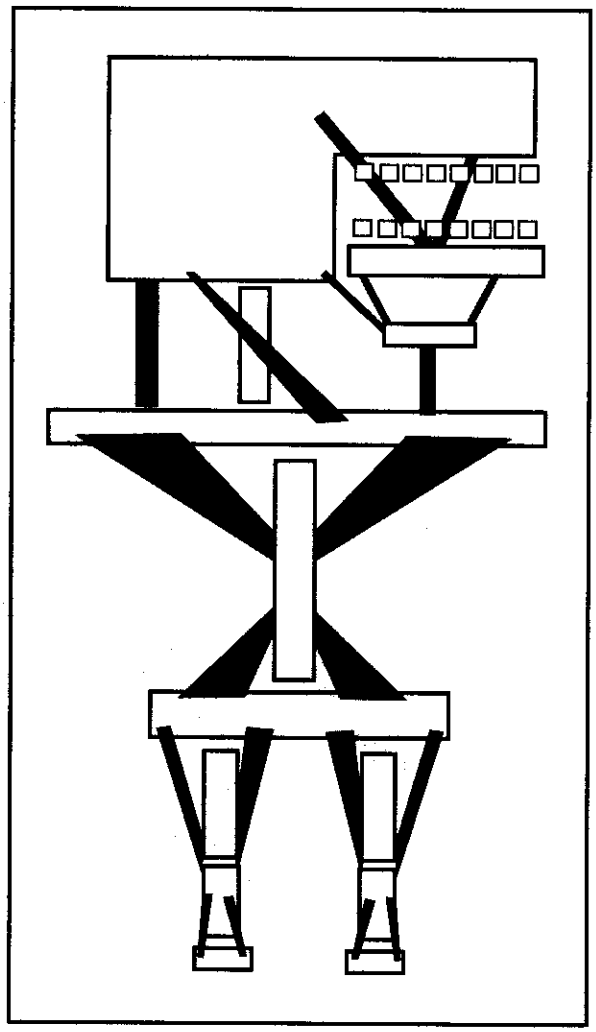
David W. Leaf

Abstract

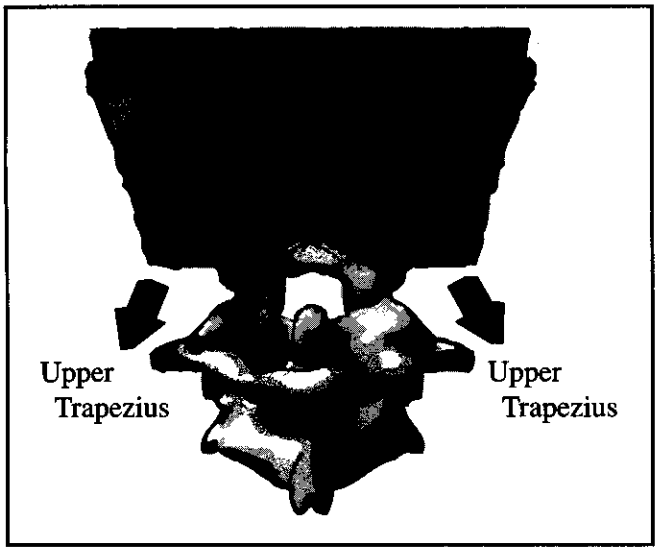
The teaching of cranial faults has been an integral part of A.K. courses since 1969. From the beginning, the cause of most cranial faults has been credited to alterations in cerebrospinal fluid production and other basically osteopathic concepts. I propose that imbalances in the major muscles of the skull are the cause of most cranial faults encountered in our offices.

Introduction

For over seven years, I have been teaching cranial faults in relation to imbalances in the major muscles that attach to the cranial bones. It is my opinion that the forces exerted by imbalances in these muscles are the major causes of the majority of cranial faults we see in the office setting. One needs only to consider the tremendous forces that can be applied to the cranium during normal chewing, failure of inhibition of the upper trapezius during walking or chronic head turning to gain an appreciation for the consequences of chronic hyper or hypo tonus of a muscle or muscle group. In teaching, we discuss the effects of chronic imbalances of the intrinsic muscles of the spine and their ability to create holographic subluxations, bending, of the bone. Not only does the bone bend slightly but joint surfaces can be altered. In the dental field, remottling, the same process, is well known to occur with the condyle of the mandible.



The concept of the head and neck being a closed kinematic chain needs reevaluation. A chronic dropping of the arch can lead to overcontraction of the pterygoid muscles on the same side. Pelvic imbalances can easily be shown to relate to pterygoid hypertonicity. The body is a closed kinematic chain and correction of cranial faults requires an evaluation of the total structure for the cause of the muscular imbalances effecting the cranium. Likewise, imbalances in the TMJ can be related to shoulder and gait imbalances.



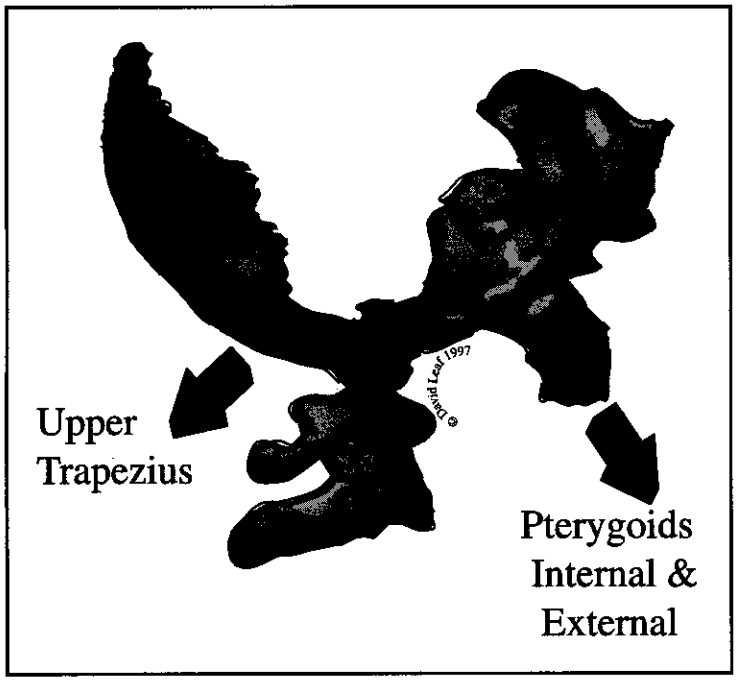
Discussion

In general, the major muscles that are involved in this creation of cranial bone rotation, flexion and or extension are the upper trapezius, sternocleidomastoideus, masseter, temporalis, internal and external pterygoids and the muscles of the tongue.

I feel that the major forces acting on the skull are the actions of swallowing, chewing, breathing and the proper inhibition and facilitation of the sternocleidomastoideus and the upper trapezius that occurs while walking.

Each major cranial fault that is dealt with can be created by imbalances in these muscles. The examination of the patient can be done by testing for the muscular imbalance or by testing for the cranial fault and then correlating the findings. It has amazed me that many feel that the one time correction or freeing of the locked position of the cranial bone in the office will permanently correct the cranial imbalance. While this does change many parameters including reduction in pain, increase in strength in related weak muscles, changes in vision, hearing sensitivity and range of motion, the symptoms generally return over a period of hours or days depending upon the underlying muscular imbalance that is at the root of the problem.

The cruciate suture (palatine suture) fault is correlated with imbalances in the tongue. Tongue thrust will be found correlated with this fault. Examination will reveal overcontraction of the genioglossus or the hyoglossus muscles.



The sphenoid - occipital faults are directly related to imbalances in the function of the upper trapezius and the pterygoid muscles. In the case of the upper trapezius, the muscle imbalance may either be a weakness, overcontraction or failure to inhibit in the walking gait pattern.

Temporal bone imbalances revolve around imbalances in the masseter and the sternocleidomastoideus. Parietal faults with the temporalis muscle.

With the exception of direct trauma to the skull, most cranial faults will be found related to imbalances in these muscles.

Correction of the cranial faults requires adequate correction of the underlying muscular imbalances. This can require correction of

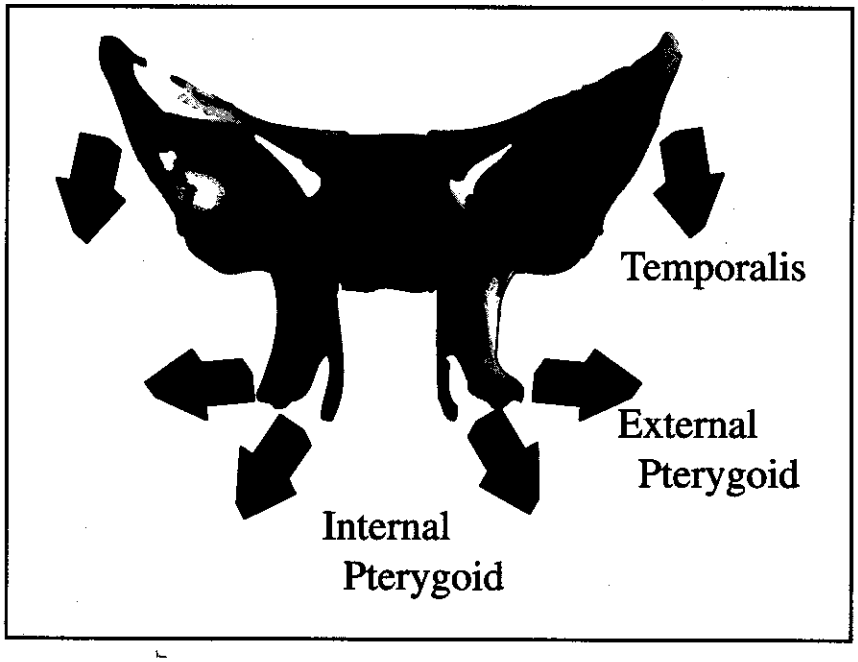
structural imbalances ranging from the ankle/navicular area to the pelvis to upper cervical imbalances.

Any imbalance that would cause contraction of the muscles of mastication from improper occlusion to allergic responses can initiate a cranial fault.

The problem is to diagnose what cranial fault is present. Find the related muscular imbalance and then find out what is causing the muscular imbalance. The causative factor can vary from ankle pronation, gait imbalances, shoulder strains, postural problems, poor habits, allergic-sensitive reactions, dental imbalances or stress. The patient must be involved in this detective work to unearth the causative factors.

Spheno-basilar faults

If we accept that a spheno basilar fault implies a locking or torque at the junction of the sphenoid and occipital bones, then what can cause this to occur? The major muscle attaching to the posterior of the skull is the upper trapezius. Imbalances in the relative strength of the upper trapezius will effect head balance and due to the leverage applied to the occipital bone cause it to torque at the sphenobasilar junction in the case of unilateral imbalance or to be held abnormally in flexion or extension. General causes of weakness of the upper trapezius can include the normal five factor imbalances and structural inhibition patterns due to underlying causes like a short leg, pelvic subluxation, plantar muscle hypertonicity, etc. The upper trapezius may be hypertonic due to a weakness of a related muscle like the latissimus dorsi or a shoulder problem. The upper trapezius may also fail to inhibit in the gait pattern requiring correction.



The muscles that attach to the sphenoid include the temporalis at the greater wing and the internal and external pterygoids. Unilateral contraction of these muscles will cause a tilting of the sphenoid as evidenced by an alteration in the height of the eye in the socket. The familiar recessed eye will be on the side of the hypertonicity of the

pterygoids or more rarely the temporalis. It is my opinion that it is the release of this hypertonicity that results in the normalization of the relative height of the eye in the socket not the forces applied to the pterygoid plates or the hamulus. If the muscle imbalance is not corrected, the overcontraction of the muscle will pull the sphenoid down on that side recreating the imbalance in the eyes. The causes of overcontraction of these muscles can include subluxation of the navicular, innominate or the atlas, spondylogenic subluxations at any level of the spine, premature contact of any tooth, alterations in normal mastication, poor habits, or a strain-counterstrain imbalance of the muscle. Adequate correction of the cause of the muscular imbalance coupled with the regular correction of the cranial fault, with patient monitoring to determine the potential cause of reoccurrence of the fault leads to complete resolution of the problem.

Conclusion

This paper is presented as an attempt to expand the conceptual concepts of the underlying causes of most cranial faults. This approach in teaching has had great acceptance in classes that have been taught with dentists and medical doctors. It has allowed an increase in the interdisciplinary referrals between professions for patients with cranial/TMJ problems.

Facilitating the Integration of Applied Kinesiology into the Chiropractic Practice

Kerry M. McCord, D.C., DIBAK

Abstract

An organized approach to an intensive review of the essentials of applied kinesiology may facilitate utilization and integration into the new and already established chiropractic practice. Two weekend reviews covering material presented in an initial 100 hour study of applied kinesiology, concentrated in and supported by an experiential format, has been received with enthusiasm and appreciation suggesting further consideration.

Introduction

It has long been observed that the challenge of implementing applied kinesiology into the already established chiropractic or medical practice presents dilemmas often difficult and imposing to the integrative process. The practitioner finds him or herself confronted with issues of business, time and individual circumstance that may seem insurmountable, and compromises must ultimately be made. The question of how to encourage the rapid implementation of the principles of functional applied kinesiologic assessment must arise in the minds of those interested in its dissemination. This question, when creatively considered by this presenter, resulted in a strategy that was ultimately received with enthusiasm, appreciation and subjectively appeared to achieve the desired outcome.

Taking into account the plethora of information that must be assimilated by those exposed to the functional and process oriented basis of applied kinesiologic assessment, an experiment was performed that suggested an outcome both favorable and worth additional consideration. Following the presentation, in a developmental format of the first fifty (50) hours of applied kinesiologic assessment and treatment protocols, a weekend review of all previously covered materials was engaged within an experiential frame. Instructor's notes, primarily extracted from presentations of Schmitt and Goodheart, and supplemented by materials from *Applied Kinesiology: A Synopsis*, were condensed into a concise format anticipating a significant amount of time being spent in workshop designed to facilitate coordinated utilization of those same concepts.

In its conception, the experiential frame that was chosen seemed to be the most important element. It was decided that consultation, examination and treatment was the appropriate context under which application of these principles should take place.

This paradigm was supported by asking the participants to bring portable adjusting tables (if available), blood pressure cuffs and stethoscopes, as well as reflex hammers and pinwheels. A quadrilateral scale, Lingual Ascorbic Acid Time, Zinc Tally and Spirometry were provided to enhance the pre and post assessments that were to be performed. Examination forms were prepared to record findings as fundamental muscle testing and physiologic assessments were performed on each participant.

During these evaluations participants were encouraged to correlate their own concerns, signs and symptoms with the muscle testing and physiologic parameters measured. All evaluations used were previously discussed during the initial presentation (multiple weekend sessions) of the material being reviewed.

Following the conclusion of the assessment process and discussion of the meaning of same, particular examples of dysfunction were isolated from the group and collective observation of the correction of same engaged. Discussion of each was conducted en masse and questions regarding these selected examples answered. After these specific instances were clinically discussed and physiologic corrections made, all participants engaged in the process of corrective endeavor with the understanding that post assessment evaluation would potentially demonstrate the efficacy of treatment. These assessment processes, as described above, were based both in muscle testing and other physiologically based parameters of objective measurement. Though physiologic measurements did not always change, a pattern of behavior and thinking was installed that allowed the practitioner to more easily conceptualize the implementation of these assessment protocols and treatment procedures into their already established practices.

In addition, the instructor demonstrated an organized approach to treatment that considered the potential time constraints imposed by the common, but not universal, paradigm of the chiropractic office visit (5 minutes or less). All was intended to provide for the possibility of inclusion, eliminating the barriers to rapid implementation of new found knowledge and skills, rather than potential exclusion of that to which each participant had been recently exposed — information both impressive, fresh and growing in their minds and hearts.

Subsequently, following the successful conclusion of the introductory material, an additional intensive review of the latter 50 hours of presentation was conducted. Again, within an experiential frame, emphasis on application and practice integration was the fundamental focus. Instructors notes underpinning this two weekend review have been provided to the College for dissemination (at cost and upon request). These notes can be used for personal edification, instructor presentation, or as a springboard for new thought in facilitating the expanded utilization of applied kinesiologic principles and assisting the student of applied kinesiology in the implementation of same. It should also be known that some of the information found within these notes may not be available in any other publication and as such may be a valuable addition to your personal library.

Division II

Critical Review

Chemical - Structural - Emotional Heart

John W. Brimhall, D.C., DIBAK

Abstract

The Heart in this article is considered to be more than a mechanical pump. Its potential as an electrical generator is discussed. Its role in emotions is mentioned. Heart nutrition and structural corrections are suggested.

Introduction

Many patients show heart problems when under stress. Emotions have been referred to through the years with terms like heartbreak, heartache, a broken heart, etc. Correcting emotional or other stresses can be beneficial in reducing or eliminating heart and blood vascular related symptoms.

On the other hand, structural and nutritional correction can give emotional improvement as well as alleviate symptomatic expressions.

Materials & Methods

Your heart is about the size of your fist and weighs less than a pound. The heart is a hollow, mostly muscular organ, situated in the thorax between the lungs and above the diaphragm.

The heart beats an average of 72 times per minute at rest. That is 104,000 beats per day and 38 million in a year. It's estimated the heart pumps enough blood in one week to fill a swimming pool.

Yet, it is much more than a mechanical pump for blood. It is a generator of electricity. The same as power is generated as water flows over a dam; electricity is generated as the heart pumps blood through the blood vessels. Andrew Taylor Still, the founder of Osteopathy, said, "the arteries were supreme." He felt communication existed for the whole body via the blood system.

Science now tells us, like scripture has for centuries, that it is the emotional center as well. Heart disease is Americans' number one cause of death. With 3 per minute, it adds up to more than 1.5 million heart attacks each year. More than 1/3 die on their first attack. For half of the victims, the attack is their first warning signal the heart is in any trouble.

Current research has shown that by age 15, many Americans already have fatty streaks in their major blood vessels. By age 16, eighty percent of Americans have some degree of blockage in the coronary arteries that supply the heart with blood.

Typical symptoms of inadequate heart function are tingling or numbness of the extremities, pain in the chest, dyspnoea, swelling of the extremities and general fatigue. The heart not being electric enough to keep up with body demands may give other complications as well. They may be subclinical or not suspected to be heart related at all. Conditions, such as low sex drive, apathy or depression are possibilities. Chronic fatigue may have a low heart electrical output as part of its root cause. High blood pressure may have its cause from the suboptimal functioning heart. There have even been cases cited that nutrition for the heart brought patients out of commas. Studies have shown low back pain may be one of the signs of heart stress or inadequacy. Dr. Goodheart also presented insights; the heart is related in some blood sugar irregularities.

To test for a weak heart electrical reflex, use kinesiology. Find a strong in tact muscle, such as the pectorals major clavicular. Test for strength and then touch in the center of the chest just below the episternal notch, at the angle of Louis, with your non testing hand and retest. If the previous strong muscle then weakens, you have a positive reflex for the heart.

Then do an oral challenge of nutrients to see if they will strengthen the reflex. Have the patient chew nutrients possibly related to the heart to see which will strengthen the reflex. Then have the patient take the appropriate nutrition until it is no longer needed. This may be for weeks or even years.

Appropriate nutrition to consider:

Raw heart tissue, which has an beneficial effect on heart muscle and therefore on coronary circulation and regulation of the metabolism of myocardial fibers

Raw spleen tissue, which is intended to supply factors for support to the spleen and its role in immune function and any related activities

Co-enzyme Q10 has been demonstrated to scavenge free radicals produced by lipid peroxidation, stabilize cellular membranes and prevent depletion of metabolites necessary for the resynthesis of ATP in mitochondria. Ubiquinone (Co Q10) concentration in myocardial cells is approximately 10 times greater than in brain or colon cells. Cardiac muscle is one of the only tissues in the body to be continuously aerobic. Co Q10 enhances ATP/ADP production in mitochondria.

Vitamin C has shown to boost the immune system and protect against free radicals. Animal studies show it even to protect against lethal doses of radiation. It is a powerful antioxidant and is necessary for absorption of iron. C is necessary in the metabolism of amino acids, particularly tyrosine and phenylalanin.

L Carnitine is necessary for transporting fatty acids into the mitochondria where they are converted to energy. This process is important to cardiovascular health. L-Carnitine deficiency may reduce the utilization of fat for energy. L-carnitine has been reported to nutritionally support energy production and cardiovascular health. It has been successful in combating fatigue and increases stamina.

Vitamin E protects against cardiovascular disease. It was reported in the late 1940s, that large doses of vitamin E can alleviate the symptoms of angina pectoris, the intense chest pain caused by insufficient oxygenation of heart muscle. Further studies validate improvement to a condition called intermittent claudication, which is characterized by pain in the calves of the legs and is caused by narrowing of the leg arteries. Vitamin E-treated patients were better able than the untreated to walk without pain. The blood flow through the arteries of their legs was much improved in most cases. Vitamin E can lower cholesterol and other blood lipids. One recent double bind, placebo-controlled study found that 500 IUs of vitamin E daily can elevate the so-called good cholesterol, HDL, by 14%. HDL helps transport the dangerous forms of cholesterol out of the body. It helps reduce symptoms of premenstrual syndrome, fights against skin problems, baldness, relieves muscular cramps, prevents spontaneous abortion, increases sexual and athletic prowess and extends life span.

We have covered the nutritional aspects of the heart and alluded to the heart being directly related to emotions. Many times as the heart is treated successfully it is much easier for a person to handle emotional stress. We would like now to shift our discussion to some structural considerations.

The ribcage may feel tight and restrictive. The diaphragm may also feel tight, with poor excursion. Percusson is applied, with the head of the percussor being placed on the right ribcage. The release is monitored on the left ribcage with the opposite hand.

There are traditional structural consideration we're all familiar with from T2 to the subscapularis muscle. Acupuncture must be evaluated with the rest of the five factors we commonly refer to. These are not the topics of this paper, however. I would like to consider the fascia a little more in depth. In visceral manipulation techniques as taught through the Upledger Foundation, you are instructed to listen to the organ motion and motility with your hands.

The heart is moving not only to pump blood, but is also going through a range of CSF motion. If this motion is restricted, the area feels hard and tight. It will also therapy localize either doctor or patient tested as we previously explained.

The ribcage may feel tight and restrictive. The diaphragm may also feel tight with poor excursion. Percussion is applied through percussion with the head of the percussor being placed on the right ribcage. The release is monitored in the left ribcage with the opposite hand.

We use the percussion instrument to free the fascia first at T2, T3, T4 areas. When this area is free of restriction, we then percuss over the sternum. Your opposite hand that is not on the hand held instrument is on the opposite side of where the percussion force is applied.

Dr. Fulford is very implicit that the posterior or spinal area must be cleared before any anterior treatment is applied. Dr. Fulford, the cranial osteopath and developer of the percussion technique, is a big believer this area has great emotional release potential. To reverse the order of sensory percussion first and motor second can cause serious physical and possibly emotional complications. He states in his writings that the morulla or malberry mass that gets its start from the union of the egg and sperm originates where the heart resides. He feels this is one of the reasons it is such an emotional seedbed.

The Foredum Percussion instrument is like a mild jack hammer and goes up and down like a jack hammer. A vibrator goes side to side and gives a completely different action than this percussion force and will not work for this deep fascial release.

The operator applies the percussion to the desired spot while he monitors the opposite side of the body with his other hand. They hold back the tissues to prevent them from moving the direction they are trying to go. This causes the fascia release and restores motion and usually improves function. You will feel a softening and relaxing of the fascia as it releases.

This is a direct technique as contrasted to most cranial techniques that follow the CSF motion as it unwinds.

Discussion

Looking at the heart with the A.K. three dimensional approach gives the physician many avenues to help the patient. It truly is a wholistic approach. The addition of fascial evaluation, as well as mobility and motility monitoring, adds to diagnostic and therapeutic value.

Results

We have found this nutritional, structural and emotional consideration of the heart to change the total well being of most patients. By A.K. evaluation, the need was diagnosed and confirmed the correction.

We have seen palpitations leave, blood pressure normalize, depression improve, chronic fatigue dissipate and many structural pain alleviated.

Conclusions

We must do more than listen to the heart with the stethoscope and record pulse rate and blood pressures. The motion and the motility of the heart in the mediastinum is part of the evaluation. Oral challenge can yield appropriate nutritional support.

Percussion of the thoracic, possibly the rib cage and the sternum, can yield symptomatic relief and improved function.

Summary of Procedure

1. Listen to the patient in case history for possible clues. There may be a mechanical, nutritional or emotional problem with the heart.
2. Test related muscles to the heart to see if there are any weaknesses and treat with normal A.K. procedures.
3. Therapy localize the heart reflex located on the angle of Loui on the sternum. If a previously strong muscle goes weak, test for structural or nutritional strengthening. You could also therapy localize to the emotional reflexes on the forehead to see if they neutralized the weakness.
4. Oral challenge of possible helpful nutrition: Raw heart tissue, spleen, Co-Q10, Vitamin C, L-Carnitine, Vitamin E.
5. Palpate and feel for motility and mobility, the thoracic spine, the rib cage and the sternum.
6. Do appropriate spinal, rib, sternum and visceral manipulation. The percussor instrument may be helpful for deep fascial release and organ mobilization. Have them concentrate on any emotional stress while the deep fascia is being released. They should have hand contact on the emotional centers, on the forehead if convenient.

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Applied Kinesiology and Homeopathy: **A Muscle/Organ/Remedy Correlation**

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Abstract

Applied kinesiology utilizes manual muscle testing to correct body dysfunction via structural, biochemical, and emotional procedures. A basic premise is that there exists a muscle/organ - gland association.

Homeopathy utilizes diluted and potentized substances from the plant, animal, and mineral kingdoms that in a healthy person would produce similar symptoms as a person who is suffering with illness.

There exists a muscle/organ-gland/homeopathic remedy correlation that may be verified utilizing manual muscle testing.

Introduction

Health is not the mere absence of disease or symptoms, but the optimum functioning of an individual in all aspects.

Applied kinesiology looks at health as a balance between the structural, chemical, and emotional aspects of an individual which if in balance should form an equilateral triangle. Each side of this triad of health may affect the other sides. Structure is at the foundation.

Homeopathy defines health as a dynamic balance wherein an individual functions optimally without any signs or symptoms of disease; whereby all of the cells resonate in phase and harmony without disequilibrium.

Applied kinesiology restores health by utilizing manual muscle testing as functional neurology to determine what factors must be treated on a structural, biochemical, and/or emotional approach. In this manner the cause of the patient's disharmony is removed allowing the innate intelligence of the body to restore the individual back to a more balanced equilateral triad of health.

Homeopathy concerns itself with restoring the equilibrium of the vital force. This is accomplished by considering the totality of the patient's symptoms, emotional as well as physical manifestations of the disease. Based upon these observations a remedy is prescribed that is similar in producing symptoms in a healthy subject but stronger so that an artificial disease is produced which cancels the natural disease. They cannot coexist in the same body.

Homeopathy therefore ties the three sides of the triad of health together; structural, chemical, and emotional and forms an apex at the center of the triangle making a three sided pyramid. We now move from a two dimensional perspective into a three dimensional one which correlates nicely with current physics.

Applied kinesiology has for years demonstrated changes in manual muscle testing with tasting of various nutrients and chemicals on the tongue. This is also possible using homeopathic remedies that are correlated to specific muscle/organ-gland associations. This addition to applied kinesiology brings about a more rapid and permanent cure to patients by tying the three sides of the triad of health together so that each one may communicate more efficiently with the other lessening the need for as much structural, chemical, and emotional treatment; which demonstrates once again that manual muscle testing is the interaction of mind with matter utilizing quantum events occurring in neurons. Applied kinesiology also adds another dimension to homeopathy in that the clinician is able to determine with efficacy the proper remedy to be chosen for the patient.

Discussion

A. What is Homeopathy?

The word homeopathy has its origins from classical Greek meaning "equal suffering"; therefore this implies that it utilizes preparations that produce similar suffering of both mental and physical symptoms to those of the afflicted. This demonstrates the basic philosophy of homeopathy by treating like with like.

Dr. Samuel Hahnemann ingested cinchona bark which at that time (around 1790) was being used for the treatment of malaria. Healthy at the time, he immediately took on the symptoms of malaria with his feet and fingertips becoming cold, drowsiness, heart palpitations, trembling, redness of cheeks and intermittent fever. All these symptoms ceased when he stopped the cinchona. He concluded that, "Peruvian bark, which is used as a remedy for intermittent fever, acts because it can produce symptoms similar to those of intermittent fever in healthy people." This was the first documented experiment on similia similibus curentur, or let likes be treated by likes.

Dr. Hahnemann went on to write the 'Organon of Rational Medicine,' published in 1810. Today it is still considered the authoritative statement on the practice of homeopathy. In it Dr. Hahnemann stated that the highest ideal of cure is the speedy, gentle, and enduring restoration of health, or the removal and annihilation of disease in its entirety by the quickest, most trustworthy and least harmful way according to principles that can be readily understood. Dr. Hahnemann passed away in 1843 at the tender age of 89.

Dr. Constantine Herring who was instrumental in organizing homeopathy in North America laid down three principles known as Herring's Laws of Cure. This law proclaims that healing occurs from above down and from inwards to outwards, and that symptoms are cured in reverse order of their appearance.

The Arndt-Schultz Law states that the function of the drug dose is inversely proportional to the effect of the drug. In other words, small doses of drugs encourage life activity; large doses of drugs impede life activity; and very large doses destroy life. Therefore Hahnemann developed a sequential serial dilution either in 1:10 (decimal series) or 1:100 (centesimal series). At each stage of dilution from the mother tincture (plant, mineral, or animal kingdom) the medicine is succussed or potentized by shaking with impact, usually at least ten times. This mixes the contents thoroughly and potential energy is released as kinetic energy; therefore each potency is associated with a particular energy level. The higher the potency (the more diluted) the greater the energy. In general, lower potencies act more superficially for acute conditions and higher potencies act on the mental or chronic conditions at a deeper level. This is especially true of potencies greater than 24x, which exceed Avogadro's number of 6.023 X 1023 and therefore theoretically contains no physical molecules of the original mother tincture. Recent research has demonstrated sub-atomic activity in high potency liquids using nuclear magnetic resonance spectroscopy.

Homeopathy is concerned with restoring the equilibrium of the vital force. This vital force, known as chi in Chinese acupuncture, ki in Japanese acupuncture, and innate intelligence in chiropractic is now talked about in terms of psychoneuroimmunology or mind-body. Dr. Hahnemann states in The Organon that "It is only this vital force thus untuned which brings about in the organism the disagreeable and abnormal functions that we call disease."

Homeopathy realizes that every person is unique and concentrates on the patient, not the cure; therefore homeopathic medicine is prescribed based on the totality of the patient's symptoms, and not the disease. It follows then that it is possible for ten patients with the same named disease state to each be given a different remedy based on their individuality.

Remedies prescribed in a person oriented manner are known as constitutional and generally are of higher potency. Constitution describes the physical, chemical, and emotional make-up of a person. Prescribed thusly, it stimulates the total reserve of the vital force to act on all tissues. The concept of constitution then is that certain people have a certain affinity for a particular remedy, usually a polycrest (about fifty commonly prescribed remedies that produce a wide range of reactive symptoms in provers.) For example, a calc carb type is the over-worked individual with a strong sense of duty and responsibility that may work to exhaustion, he/she is preoccupied with spiritual matters, fears heights and has anxiety about health, very obstinate but fears his mind is weak. The body tends to obesity, chilly with a sense of inner trembling, tendency to allergy, a pale face with a soft, round complexion.

The doctrine of signatures was described by Paracelsus who wrote "You bring together the same anatomy of the herb and the same anatomy of the illness into one order." Therefore the qualities and features of plants, minerals, and animals are studied and applied to their curative value in sickness. For example, sulfur which is yellow and burns can be indicated in jaundice and for pain of a burning nature. Therefore this doctrine can be verified against the proving symptoms of homeopathic medicines.

Inherited weaknesses that are passed down from generation to generation Hahnemann described as miasm. The word miasm means "to pollute." He felt this was the cause of chronic disease. Miasm is not the disease itself but it is the factor responsible for a disturbance in the vital force which allows the disease to manifest. These are often presented in layers much like an artichoke. Each layer must be treated by utilizing the totality of symptoms presented at that time until a complete cure is resolved; then a new set of symptoms may appear which likewise must be treated until all the layers have been removed. Dr. Hahnemann divided all chronic diseases into either psoric, syphilitic, or sycotic miasms. Psora is the non-venereal miasm which usually involves an itch on the skin and produces functional disorders manifested by hypersensitivity. The syphlitic miasm is destructive, producing ulceration and necrosis. The sycotic miasm (from gonorrhea) is confusion producing incoordination and hypertrophy of tissues in the form of warts and tumors. Dr. H.C. Allen added a fourth miasm, the tubercular miasm which reflects a combination of the psoric and syphillitic miasms. The tubercular miasm is one of dissatisfaction producing changing symptomatology with symptoms of hyperexcitation and destruction. Today we may think of miasmic influence in terms of hereditary sequences in the genetic code of DNA and RNA. (This last aspect is important since it is the door to unlock the code of when to use homeopathy on an applied kinesiology basis.)

In traditional homeopathy the practitioner takes a very thorough case history which may require up to two hours. The totality of all the patient's symptoms, both emotional and physical are taken into account along with their modalities. A modality is a modifier of a symptom which either aggravates or ameliorates the particular symptom. Modalities may be categorized into physical, temperature, time, dietary, localization (right or left), and other miscellaneous categories. The individuality of a patient is also an important consideration taking into account the physical character, personality, and family heritage. The practitioner will repertorize the patient's symptoms from a repertory of the homeopathic materia medica which categorizes into emotional and physical symptoms, from general symptoms to particulars (which relates to any particular part or organ of the person). These headings list remedies in bold, italicized, or plain print. Based upon the type of print a numerical grading is given each remedy. At the completion of the repertorization a list of remedies is produced from the highest scoring to the lowest scoring. At this point, the practitioner looks up the top scoring remedies in a Materia Medica. A Materia Medica is a book comprising the characteristic and guiding symptoms of all remedies. Based upon the practitioner's experience a single remedy is chosen

which best fits the totality of the patient's symptomatology in accordance with the similimum. If the symptoms are more acute or a physical pathology is involved then usually a lower potency is prescribed, 30c (c = 100th potency) or less. However, if it is more of a chronic condition and/or emotional symptoms prevail a higher potency, (200c or higher) is generally utilized.

Occasionally a slight temporary worsening of symptoms occurs. This is known as a homeopathic aggravation. This frequently occurs if the potency chosen was too low. However even a properly chosen remedy with the correct potency may sometimes cause an aggravation which is a good indication that it is a precursor to a cure for the patient. The artificially induced disease stimulus will overturn the natural disease if this matches the patient's symptom complex and if the condition is reversible and the patient's vital force is strong enough to react.

Obstacles are anything that will prevent a cure. The obstacles can be mechanical (such as a spinal subluxation), inherited (miasmatic), exhaustion (overwork and/or lack of rest), allergy (constantly eating bread even though one is gluten sensitive), parasites, emotional stress (socially induced from family or peers), diet (eating too much sugar and/or caffeine), iatrogenic (allopathic medication), and last but certainly not least, environmental (external and internal pollution). Drainage is the homeopathic methodology of detoxification. Its origins are French and really means channeling. There are various homeopathic remedies that are near organ specific and promote drainage of toxins from these organs. Drainage can be considered as indirect to open up the channels and direct to act on the excretory organs. In general, a drainage remedy is utilized first and then the remedy according to the similimum or constitutional remedy is administered.

Gemmotherapy is prepared from macerates of buds, young shoots, and/or rootlets in the early stage of growth of plants mixed in glycerin and alcohol. The potency is very low (2c) and is prescribed strictly on a pathological basis. Basically, it is the homeopathic application of phytotherapy. These remedies are generally used to perform drainage support to an organ.

Organotherapy involves the use of sarcodes. A sarcode is the homeopathic preparation of healthy animal tissue. This therapy is cellular specific which follows the first principle that the organ acts upon the organ. Sarcodes provoke a central immune response which assist in regenerating damaged organs. This system may also be employed in drainage therapy.

Isotherapy is the use of the same remedy as opposed to similar in traditional homeopathy. Isodes are homeopathically prepared from the patient's own body tissues or fluids. Sometimes these are also remedies from allergens, hazardous industrial substances or even allopathic medicines. These remedies are generally prescribed in potencies of 30c or higher. A nosode on the other hand is a homeopathically prepared remedy from diseased products. There are nosodes of plant, animal, microbial, humoral orgin, and non-lactose fermenting bowel organisms known as bowel nosodes. The bowel nosodes were

introduced by Dr. Edward Bach and Dr. John Patterson. These nosodes were derived from cultures of stools. Nosodes are generally utilized when the patient's presenting symptoms are insufficient to prescribe a remedy based on the similum and/or the patient states to " have never been well since." These are generally prescribed as a single dose of 30c potency.

Dr. Edward Bach also developed the Bach flower remedies. These are made from macerations of petals in brandy. Although not strictly homeopathic they are considered by many as complementary to homeopathy. Dr. Bach felt that the physio-pathology was much less important than the psyche which represented a deeper disharmony within the patient. These remedies are therefore prescribed on the basis of mental symptoms only.

Biochemic remedies were developed by Dr. Wilhelm Schussler. These consist of twelve biochemic tissue salts. These salts are generally low in potency from 3x, 6x, and 12x. His theory was that disease is related to mineral salt deficiency.

Lithotherapy utilizes the dechelating effect of geological rocks and minerals. Since metal ions are necessary as co-factors in many metobolic pathways that may be inactivated by a chelator; this approach is gaining favor (especially in France) as a form of drainage therapy. These are generally administered in the 8x potency.

There are basically two schools in homeopathy, the unicist and pluralist. The unicist school prescribes strictly one remedy at a time in accordance with the similimum. Within this school of thought there are two basic divisions, the pure Hahnemannian and the Kentian schools. The Hahnemannian utilizes the inductive method and believes that a specific microbe takes advantage of a disturbed tissue or miasm due to an imbalance in the vital force. The Kentian school utilizes the deductive approach and does not accept microbes as pathogenetic factors. They administer a single remedy in very high doses based on the constitution of the patient whether it is an acute or chronic illness. The pluralist school look at the patient from the perspective of suffering from emotional, biochemical and structural imbalances; therefore, a high potency remedy is given for the pysche, a medium potency for the functional chemistry imbalance, and a lower potency for the structural organic changes (drainage therapy). These are sometimes administered in homaccords. A homaccord is a remedy in varying potencies such as 6x, 12x, 24x, and 100x.

Remedies are sometimes referred to as complementary to each other. This refers to symptoms that remain after the initial remedy has run its course of action and may be removed by administering a second or complementary remedy. Other remedies are referred to as inimical. Inimical remedies should not follow one another as they tend to have opposing actions. A remedy that is an antidote may be used if one wishes to neutralize the effects of a poison or a remedy that was causing a severe aggravation. Plussing a remedy refers to starting, for example with a 6x, and then taking a 7x the next day and then an 8x the following day and so on. This is generally used in the lower poten-

cies when frequent dosing is required. This system of plussing helps prevent homeopathic aggravations when a medicine needs to be taken over a period of time. The patient is instructed to continue plussing until a cure is reached or no further improvement is noted.

Contemporary homeopathy now utilizes computers for repertorization and research. Since there are over 3,000 homeopathic remedies, with each particular remedy containing up to several thousand details called rubrics, the computerization of the homeopathic repertory has greatly aided in selection of a remedy for the patient.

Electroacupuncture was first discovered in 1953 by Drs. Voll and Verner in Germany. Electroacupuncture is a diagnostic methodology that utilizes electrical measuring devices that measure the energy of acupuncture points via an ohm meter. Dr. Voll found that there is a change in the measurement values of these acupuncture points when a person is in direct contact with a homeopathic medicine. After further research and testing there was found to exist a correlation between homeopathic remedies and acupuncture meridians. Further research by Dr. Schimmel in Germany in 1977 determined that there was also a homeopathic remedy and organ correlation. An electric circuit is made by the person holding an electrode in one hand that is connected to the electrical ohm meter device while the acupuncture point is measured on the other hand via a probe. A metal honeycomb where homeopathic remedies are inserted completes the circuit. Testing in this manner it has been demonstrated that organ dysfunction is revealed long before it advances to the pathology stage. This correlates well with what has been found utilizing applied kinesiology protocol.

B. What is Applied Kinesiology?

The word applied kinesiology means the practical application of the study of motion. The function of muscle movement, coordination in gait, and its impact on the biomechanics of the spine (cranium included), houses the central nervous system which controls and coordinates all functions of the body. Therefore applied kinesiology is intimately involved in the study of all aspects of the human body; structural, chemical, and emotional via manual muscle testing.

Dr. George Goodheart, Jr. in 1964 had a patient with an unresolved shoulder problem. He had treated the patient previously for another complaint successfully, but this particular symptom persisted. Observing that the medial border of the scapula protruded posteriorally while the patient pressed against a wall with his hands, Dr. Goodheart knew this indicated dysfunction of the serratus anterior muscle. A friend had given him a book entitled 'Muscle Testing' by Kendall and Kendall, so he looked up the origin and insertion of the muscle and palpated this on the patient. He felt discreet tender nodules and began pressing on them until they disappeared. After this initial treatment, he had the patient press against the wall at which point the scapula no longer pro-

truded. The pain disappeared and normal function was restored. Dr. Goodheart has continued to see this patient from time to time to the present and the shoulder has functioned well ever since that first treatment. This initial observation and treatment was the birth of applied kinesiology.

Manual muscle testing was originally developed at John Hopkins in the 1940s as a means of disability evaluation. Utilizing the method of testing muscles by Kendall and Kendall, Dr. Goodheart continued to test more and more muscles of his patients. Some responded to the initial goading pressure (now known as origin/insertion technique) while others did not.

Another patient referred to Dr. Goodheart suffered from sciatica in any position, but the pain was alleviated when he walked. This patient exhibited weakness of the tensor fascia lata which did not respond to origin/insertion technique. Since the sciatica was relieved when the patient walked he thought it might involve the lymphatic system. Palpation along the lateral aspect of the thigh and near the ipsilateral sacro-iliac joint produced nothing abnormal. At this point the patient exclaimed that was the first relief he had gotten, and Dr. Goodheart looked back at him and said, "That's what you came in here for." He was aware of the work that had been done by Frank Chapmann, D.O., who had postulated the idea of lymphatic circuit breakers that he called neurolymphatic reflexes. These reflexes when active were very tender and palpated like small bb shots under the skin. These foci were consistently associated with specific viscera. Dr. Goodheart also found these foci to be associated with specific muscles. These helped to explain partially why many patients' visceral complaints were alleviated by musucloskeletal treatment. These neurolymphatic reflexes were to go on to become one of the five factors of the intervertebral foramen which will be discussed later.

During a lecture Dr. Goodheart was presented a young boy who was having an asthmatic attack. Knowing that the adrenal glands were often involved, a sartorius (the muscle related to the adrenal glands) was found to test weak, but neither origin/insertion technique or the neurolymphatic reflex produced a positive response. Trying a cranial technique which involved spreading the sutures, a pulse was felt at the posterior fontanel (bregma). This pulse beat at approximately 72 bpm while the carotid pulse was 120 bpm with respiration around 40 bpm. Holding this pulse at the bregma the labored breathing stopped and the sartorius tested intact. Dr. Terence Bennet, a chiropractor practicing in California discovered these neurovascular receptors located on or about the skull in the 1930s. Today the Neurological Research Foundation continues his teachings. These receptors were correlated with specific organs. Dr. Goodheart correlated the neurovascular receptors to specific muscles and was becoming more and more convinced of a muscle/organ-gland relationship. This constituted another of the five factors of the intervertebral foramen (IVF).

A patient with chronic headaches for thirty years presented herself for treatment one day at Dr. Goodheart's office. Postural analysis (one of three primary diagnostic procedures in applied kinesiology) revealed a low occiput on

the right from the posterior view. However, from the anterior view the eyebrow on the left side was lower. He noticed that the muscles on the right side of her body tested weak on manual muscle testing, but would turn on (test strong) with the patient's breath held in inspiration, while the muscles that tested weak on the left would turn on when she held her breath out in expiration. Knowing about Dr. Sutherland's (an osteopath) work on the cranium, that the bones of the skull move on respiration similar to the gills of a fish, Dr. Goodheart pressed forward on the right mastoid process on inspiration and backwards on the left mastoid process on expiration. After this therapeutic effect the patient looked up and said, " This is the first relief I've ever gotten," at which point Dr. Goodheart said, "That's what you came here for." After much experimentation, Goodheart and co-workers found that some muscles responded to a half breath held in, a full breath in, a forced breath in, a half breath held out, a full breath out, a forced breath out, oral inspiration only or nasal inspiration only, or right nostril held in or left nostril held in. He went on to develop the guidelines for the correction of the now fourteen basic cranial faults. This correlated well with respiration affecting spinal fluid flow rates; hence another factor had been discovered for the intervertebral foramen concept.

Given a book on acupuncture by a friend entitled, 'The Five Elements' by Felix Mann, he read that there is an organ/meridian relationship utilizing tonification and sedation points. Dr. Goodheart then found that the tonification point of a particular meridian would turn on a specific muscle that tested weak, likewise an intact muscle could be turned off by stimulation of a specific sedation point. Therefore there existed a muscle/meridian/organ relationship. This was the fourth factor of the intervertebral foramen (IVF). The nerve supply to the muscle/organ is the fifth factor of the IVF. This was via the spine. The nerve could be impeded at the spinal level or along its course extra-spinally. Nutrition is also included in the nerve supply factor.

Early in Dr. Goodheart's career, a young boy had swallowed a caustic substance which perforated his esophagus. A stoma was placed in his stomach where food and drink were introduced. The child went on to develop kidney stones, arthritis, and began losing weight. Dr. Goodheart instructed the child's parents to have him chew and taste the food first, then feed it through the stoma. The kidney stones and arthritis disappeared, along with an increase in weight.

A direct pathway from the oral cavity to the brain has been proposed and studied by Kare and Miller.[163] When isotopically labeled glucose and sodium chloride were placed in the oral pharynx while the esophagus and trachea were ligated, there was a rapid movement of the labeled substances into the brain with none found in the body. If the substances were introduced into the digestive tract, they were not found in the brain, but in the liver and blood stream. The importance of tasting and chewing food can readily be demonstrated by measuring the iodine content prior to chewing the food and then after chewing but before swallowing.[58] In the food that was chewed the

iodine content is reduced. A patient that had participated at a celebration presented himself for treatment at Dr. Goodheart's office complaining of a headache. Dr. Goodheart found a pectoralis major sternal muscle (related to the liver) that tested weak, and had the patient chew purified bile salts with a low dose of vitamin A, which immediately made the PMS test strong. The patient looked up at Dr. Goodheart and asked if chewing those two pills could have helped the headache that fast. The organ/nutrient relationship had just been discovered and further research revealed that there is a specific nutrient/muscle/organ correlation just as there is a specific muscle/organ-gland correlation. According to Dr. Goodheart,

> "The body has a unique system of identifying its needs both in terms of food and nutritional supplementation, as well as medication, and the nutrient in question can be tested against any of the patient's muscles upon ingestion of the material on the patient's lingual receptors on the tongue; a muscle is tested, and if the food is good or neutral the muscle will not weaken. The same is true of a nutrient or any medication. This makes sense out of a hit or miss sort of thing, and rather than listening to symptoms alone, we depend on body reaction, a more effective technique."

And further he states, " The point is that one can test any food, any medication and get a body response if the lingual receptors are allowed to be activated by the substance in question." Taste impulses are far reaching in the brain. According to Grossman the hypothalamus may be a sensory end organ which involves the entire cortex.

The emotional side of the triad of health is just as important as the other two in the practice of applied kinesiology. Muscle function change has been associated with emotional problems by EMG studies which reveal hyperponesis and dysponesis.[163] Having a patient visualize a stressful situation and then testing a strong indicator muscle often produces a short circuiting with a concomittant weakening of the indicator muscle. A frequently utilized muscle for this procedure is the pectoralis major clavicular (PMC). The organ relationship here is the stomach. Dr. Hans Selye's well known classic research on stress which documented the effect on gastric function by prolonged emotional strain was published in a book entitled, 'The Stress of Life.' "This gastric stress relationship is the basis for understanding the applied kinesiology approach to emotional stress overload," according to Dr. Goodheart. The Bennet neurovascular reflex points for the stomach are on the bi-lateral frontal eminences in the mid pupil line. These are also known as the emotional neurovascular reflexes. These reflexes when therapy localized (touched) will negate the weakening of the PMC when the patient holds the stressful thought. They are therapy localized until a synchronous pulse is felt between the right and left points. This in effect resets the emotional circuit breaker and the PMC will no longer test weak against the same stressful thought pattern. The time required for treatment will vary from approximate-

ly fifteen seconds to ten minutes. This clearly demonstrates the psychosomatic link which is often discussed as mind-body therapy.

Applied kinesiology utilizes manual muscle testing as functional neurology in the evaluation of patients on a structural, chemical and emotional basis. The healthy individual should constitute an equilateral triangle, representing balance or homeostasis within the human system. The five factors of the intervertebral foramen (IVF) are the nerve supply and nutrition, neurolymphatic, neurovascular, cerebrospinal fluid (cranial-sacral respiratory mechanism), and acupuncture meridian connector. Specific muscles are related via the five factors of the IVF to specific organs and glands.

D. D. Palmer, the founder of the art and science of chiropractic said that "Too much or not enough energy is disease." Energy fields about the body have been photographed utilizing a special technique known as kirlian photography. Acupuncture points can be measured electrically utilizing a type of ohm meter; (this type of measurement is also utilized in EAV testing developed by Voll and Schimmel discussed previously), and are noted to be areas of lowered electromagnetic resistance. In 1974, Dr. Goodheart discovered the phenomenon of therapy localization. Therapy localization involves touching the body over a suspected area of involvement. This area of involvement may be a spinal vertebra, a neurolymphatic reflex, a neurovascular reflex, a cranial bone, an acupuncture point, any joint in the body, a muscle, or over an organ. If involved, a strong indicator muscle will test weak or a weak associated muscle will test strong. Therapy localization tells the examiner that there is a dysfunction in the area that is being touched, but does not tell the examiner what the problem is. The dysfunction could be on a structural, chemical, and/or emotional basis. The area being therapy localized can be cross therapy localized (two-pointed) to another factor to help determine the cause of the original therapy localization. For example, the left sacroiliac joint therapy localizes in the clear (without any other factor being involved) and is negated by cross therapy localizing (two-pointing) the adrenal neurolymphatic, indicating that the adrenal glands are involved in allowing a lesion to occur in the left sacroiliac joint, probably due to a short circuit in the adrenal related muscles (sartorius/gracilis). The adrenal glands can then be treated using the five factors of the IVF. The left sacroiliac joint can also be two-pointed to the emotional neurovasculars to determine if there is an emotional component that is involved in the lesion. In this manner many health problems can be tracked down to their cause.

The three primary diagnostic criteria utilized in applied kinesiology (along with standard diagnostic procedures) are postural analysis, temporal sphenoidal line, and pulse point diagnosis. Postural analysis involves placing the patient on a plumb line and observing distortions from an ideal postural position. Posterior to anterior the gravity plumb line should go though the external occipital protuberance, down the center of the spine and through the gluteal crease landing midway between the medial malleoli. The head, shoul-

ders, and iliac crests should be level, the palms should face slightly to the posterior with the feet slightly externally rotated; both of which should be equal on the right and left. The side view should demonstrate the plumb line going through the external auditory meatus, midway through the shoulder, the greater trochanter, slightly anterior to the knee and lateral malleolus. Any deviations from the ideal posture usually indicates a dysfunction in one or more muscles allowing unequal pull to the joint structure permitting structural distortions to occur. This is a static postural analysis. A dynamic postural analysis is made by examining the patient in gait (as the patient walks or runs).

The temporal sphenoidal line was first described by M.L. Rees, D.C., of Sedan, Kansas. It begins anterior to the external auditory meatus along the superior border of the zygomatic process, then courses superiorally along the zygomatic bone and then turns posteriorly along the fronto-sphenoidal suture and continues posteriorly along the parieto-temporal suture. There are some twenty points located along this line which are related to specific vertebral levels, muscles, and organs. When these points are active they can be palpated as discreet tender nodules that feel like a bb shot under a slice of raw bacon. They have been postulated to represent trigger points in the temporalis muscle and/or that they represent reflex areas correlated to an embryological body due to their sequential order. These points will therapy localize and key in the examiner to primary areas of dysfunction in the body.

The acupuncture pulse points are located along the radial artery of the left and right wrists. There are three classic points found on each wrist with the distal point being slightly inferior to the radial apophysis, the middle point being about one finger width (patient's finger) proximal to the distal one, and the proximal pulse point the same distance proximally to the middle point. Each pulse point represents two meridians, which are termed paired or coupled meridians. Each pair consists of a yang (male) and yin (female) meridian. The yin meridians are the deep pulse points whereas the yang meridians are the superficial pulse points. Dr. Goodheart has correlated a fourth pulse point. In addition to the classic three on each wrist there is found a distal pulse point on the proximal opponens pollicus muscle. He relates this point to the conception and governing vessel meridians. In classical Chinese acupuncture the pulse points are palpated by the practitioner when the wrist is in slight dorsiflexion resting on a pillow. The pulses are palpated for various characteristics that allow the acupuncturist to determine the energy flow in the body. In applied kinesiology the pulse points are therapy localized to determine the energy flow. Generally, only one pulse point therapy localizes. At this stage there is a possibility of two meridians being involved. The doctor then tests the muscles associated with those meridians and based upon which muscle tests weak determines which meridian is at its lowest energy. The doctor then has the patient therapy localize the alarm point for that meridian, and depending on the response of the muscle will make a treatment decision. There have been numerous new applications and discoveries of

classical Chinese acupuncture in applied kinesiology including, but not limited to; hypothalamic function utilizing B and E technique, pain control techniques, time techniques, and neurotransmitter correlations.

To summarize then,

> "Activation of the chemical side of the triangle (using RNA) is necessary to identify problems in the psychological side of the triangle (emotional stress overload) which further have their outward effects on the structural components of the patient's health. Only through the ability to communicate with the nervous system that is afforded us by the body language of muscle testing and by applied kinesiology procedures is it possible to uncover these complex patterns of health and disease. Applied kinesiology is the tool which makes it possible to practice holistic philosophy in a holistic health care at its maximum effectiveness in the setting of the general practice office."
>
> Dr. George J. Goodheart, Jr.

C. Applied Kinesiology and Homeopathy

1. RNA and Body Memory

Research conducted at the University of Michigan involved two sets of planeria (earthworms).[58] Set A received an electric shock and light stimulus at feeding time while set B received no such stimulus. Both groups were sacrificed and fed to two other sets of non-conditioned planaria. Set AA were fed the light stimulus and electric shock conditioned set A earthworms while set BB were fed the non-conditioned set B group. When an electric shock and light stimulus were applied to the set AA and BB groups statistically significant numbers of set AA responded and moved toward the food site whereas the set BB group (the group who had eaten the non-conditioned planaria) had no such response.

In another study, rats were conditioned with the sound of a click to approach a food site. RNA (ribonucleic acid) was extracted from the brains of these conditioned rats and injected into the brains of a second non-conditioned group of rats. This second group demonstrated the conditioned response of the first group when the stimulus (click) was applied.[58]

Ribonucleic acid is a polymer of ribonucleotides. These are adenine, guanine, cytosine and uracil attached to the sugar ribose. RNA exists as a single strand molecule that is capable of folding back on itself. There are three primary classifications of ribonucleic acid, these are messenger RNA (mRNA), transfer RNA (tRNA), and ribosomal RNA (rRNA). The sequence of ribonucleotides in RNA is complementary to the sequence of deoxyribonucleotides in the sense strand of the DNA template.

Pietsch states that memory can be found in or around molecules, cells, physical, chemical and physiological processes. Therefore we are able to maintain our sense of identity only by forming new memories from moment to

moment. According to Hassan and Ward, "The recollection of perceptions, which implicates neocortical processes, may invoke (through descending connections via the limbic system, hypothalamus, and spinal cord) the somatic and visceral motor changes which occurred in the original situation." The limbic system is associated with the hippocampus which is intimately connected to other brain areas to unify our external and internal experiences, and according to Restak every thought almost always carries with it some emotion.

Rossi states that memory of events is imprinted as physiological, tissue, and muscle memory. Physiological memory is defined as storage of memory traces by RNA and also a memory for body experiences outside of conscious awareness (Longman Dictionary of Psychology and Psychiatry). Therefore new information entering the nervous system acts on RNA producing a memory, while constant new information is compared to previous RNA; if there is coherency between the two there is memory. This is a hologramic principle.

A hologram is a three dimensional picture made by coherent light striking an interference pattern or wave front. This interference pattern is made by two beams, an object and a reference beam striking the plate at different angles. "Therefore the hologram is an energy interference pattern; within this pattern every piece contains the whole."[149] This principle is found in the human body in that every cell has the entire DNA structure for the whole human body, even though less than one percent of this DNA information is actually used. Neuroscientist Pribram states that the brain mathematically constructs reality by interpretive frequencies to produce our conscious reality of the universe. Restak says the "Holographic model is also consistent with Pibram's findings that brain structure is built around actions which can be carried out by various means, using multiple muscles and muscle groups." He concludes, "Thus a hologram is not only possible, but for this moment represents probably our best model for brain functioning."

Nerve cells contain more RNA than almost any other cells in the human body. Dr. Goodheart has stated that RNA is related to memory and applicable to emotional recall patterns. He goes on to state that "The RNA memory activation pattern is also useful in restoring the nervous system's memory of other aberrant circuits. That is, certain other muscle weakness patterns which one would expect to find on the basis of the patient's history, signs, and symptoms will not be present unless RNA is insalivated." Furthermore, "The critical factor is identification or diagnosis of the need for emotional neurovascular therapy."

Since every thought contains an emotion (Restak) and it is the limbic system which controls emotion and is the basic structure for memory; Hassan and Ward have stated, "The role of memory in emotion can hardly be overemphasized. The perceptual process involved in emotion becomes part of the memory store." Currently in acupuncture, bladder one points (eyebright) are related to the pineal, pituitary, and hypothalamus.[162] These points (according to Scott Walker, D.C.) are the Riddler reflex points for RNA if they therapy localize in

the clear (without involving cross therapy localization to another point or body part). The points (located at the medial canthus of the eye) are therapy localized using the index and middle fingers of the same hand.

Dr. Goodheart developed a diagnostic test for supplemental need of RNA. A patient is requested to stand on one foot with eyes open; assuming they can do this they are requested to close their eyes. If they are unable to maintain their balance with eyes closed on one foot, this indicates a need for supplemental RNA. With eyes closed, the patient is asked to ingest one RNA tablet and any response is noted. If there is no improvement then another tablet is added. In this fashion the dosage is increased until a positive response is obtained. When the proper dosage is reached, the patient should be able to maintain his balance on one foot whether his eyes are open or closed. Note that this is performed having the patient chew the RNA tablets but not swallowing them, so that the material is held in the mouth. Other objective test parameters will change if the patient requires RNA such as vital capacity, body weight change (over a period of time), etc. Occasionally upon chewing a single RNA tablet, there will be a decrease in the duration of time the patient can maintain balance on one leg with the eyes closed, and according to Dr. Goodheart, "This indicates a need for a relatively homeopathic amount of RNA."

2. Homeopathy: The Apex of the Triad of Health

> "In many instances when one has accomplished what one should in terms of original primary subluxation, correcting the fixation, clearing the neurolymphatic, neurovascular and cranial sacral fluid patterns along with proper nutrition, sometimes the clinical result is still not forthcoming in terms of the patient's response. Naturally these cases are at a minimum, but they do occur, and there is a reason for their occurrence."
>
> George J. Goodheart, Jr., D.C.

Walker has said that biochemistry, structure and emotions don't make life, but are parts of it. There exists another aspect to the triad of health which may be defined as electromagnetic or vibrational. In homeopathic remedies, the energetic signature of the substances (animal, mineral, or vegetable) is transferred to a solvent. It is this vibrational signature of the substance and not its molecular properties which are utilized for healing. Again, Walker states, "That which we can not see or hear is what healing and life is all about." According to Gerber, "In homeopathy a remedy is chosen for its ability to stimulate and rebalance the physical body through supplying a needed frequency of subtle energy. If the remedy's frequency matches the patient's illness state, a resonant transfer of energy will allow the patient's bioenergetic system to effectively assimilate the needed energy, throw off the toxicity, and make a new equilibrium point of health."

D. D. Palmer, the founder of chiropractic, said it this way,

> "Poisons taken into the system in food and water that is polluted, or by breathing noxious effluvia from decaying vegetable or animal matter, or

by the outrageous practice of the M.D. who injects vaccine poison into a healthy person, affects nerves, which act on muscles sufficient to displace vertebrae and impinge nerves, causing derangements which we name disease."

Hahnemann, founder of homeopathy announced he had discovered the cause of chronic disease - miasms. Miasm by definition means 'to pollute'. He felt that miasms were agents that were passed down from generation to generation causing an inherited susceptibility to disturbance in the vital force. Every miasm originates from specific nosological agents. Bellavite and Signrini wrote, "Recognition of such phenomenon might suggest that the disease history of each individual patient is somehow related to a single pathological pathway and that there exists some kind of biochemical or neurohormonal biological memory." Persisting in the context of homeostatic disorders... "a number of modifications are transient and easily reversible, while others are longer lasting, or even permanent, thus constituting a sort of memory of the biological history of the cell." This reminds us of Karl Jung and his collective unconscious memory in which memory potentials are inherited from an individuals phylogenetic past.

Hans Selye, M.D., said, "Heredity and past experiences have some trace, some 'tissue memories' which influence the way we react to things." So miasm is the abnormal inherent ethereal force which manifests itself by abnormal function and sensation which we call disease. Today this may be discussed in terms of the genetic code, DNA and RNA.

Therefore it is homeopathy which unites the three sides of the triad of health; the structural, chemical, and emotional to reside like an apex as if it formed a three sided pyramid. Complementarity in biology is the concept that life is no longer black or white but many shades of gray. Where does structure end and chemistry begin? Where does chemistry end and emotions begin? Matter and energy are now known to be interchangeable thanks to Einstein's $E=mc^2$ equation.

"In the healthy condition of man, the spiritual vital force (autocracy), the dynamis that animates the material body (organism), rules with unbounded sway, and restores all the parts of the organism in admirable, harmonious, vital operation, as regards both sensations and functions, so that our indwelling reason gifted mind can freely employ this living health instrument for the higher purposes of our existence."

Samuel Hahnemann

3. Homeopathic Indications via Manual Muscle Testing

The methodology of determining whether homeopathy is indicated via manual muscle testing was researched entirely by Scott Walker, D.C., the founder and developer of neuro-emotional technique (NET). Dr. Walker feels that homeopathic remedies work energetically via a body memory system. According to Deepak Chopra, M.D., "Your body is just the place your mem-

calls home." Dr. Walker believes there are approximately five systems of body memory relating to the five elements of classical acupuncture; fire, earth, metal, water and wood. These five elements are a holistic model of man and the cosmos. Becker feels that the glial cell network may function as an interface between the meridians and the nervous system.

It is the cell membrane's electrical charge that determines the reactivity of each nerve to release neurotransmitters. Therefore changes in the electrical field microcurrent environment of the synapse influence nerve impulses. These neurochemical changes are signals through the meridian neuron link. The electromagnetic currents flowing through the meridians induce electrical fields at the tissues. The meridians are therefore mediated through a bioenergetic system that modulates the network of the nervous system.[53]

Walker concludes there are two main types of memory: cognitive and body. Body memory and RNA have been previously discussed indicating a strong correlation. The Riddler reflex points for RNA are the bladder one points. In Dr. Walker's previous problem patients (resistant to cure), he always found bladder one points active. They would cross therapy localize (two-point) to one of the five element meridian access points. He attempted various therapeutic approaches but they would not hold their corrections. At this point, he tried homeopathic remedies with great clinical success. These clinical achievements provided the impetus for Dr. Walker to develop homeopathic combination remedies specific to the five elements. Remember that according to acupuncturists the bladder one points are related to the pineal, pituitary, and the hypothalamus; whereby an energetic signal becomes converted to a hormonal signal.

The procedure is relatively simple. The bladder one (Walker has termed them the body memory indicator (BMI)) points should not therapy localize in the clear, (if they do the patient requires supplemental RNA), but will cross therapy localize (two-point) to any active point (vertebrae, neurolymphatic, neurovascular, meridian access point, muscle, cranial bone, organ, etc.) if homeopathy is required in the therapeutic effort for the patient. For example, if the liver therapy localizes in the clear (a strong indicator muscle weakens) and is negated by therapy localization to the BMI points with the index and middle fingers of the same hand, (the weak indicator muscle now becomes strong again via manual muscle testing), homeopathy is indicated for the patient. The clinician then removes the therapy localization from the BMI points and maintains therapy localization to the liver (the indicator muscle again tests weak), at which point he/she begins testing this weakness against homeopathic remedies for re-strengthening of the weak indicator muscle. The remedy or remedies that test positive (negate the therapy localization to the liver) are the one(s) indicated via manual muscle testing for the particular patient at this particular time.

Another method utilized by this author is to begin with a weak muscle (identified via one of the three primary diagnostic criteria in applied kinesiology; postural analysis, ts line palpation, acupuncture pulse points analysis) and cross therapy localization to the BMI points. If this turns on the weak muscle, then homeopathy is indicated for this patient via a muscle/organ/remedy correlation which follows.

> "Those who test homeopathy and make the experiment do not escape. Over and over again doctors have studied homeopathy, or have been commissioned to look into it, in order to expose it - only to become its most enthusiastic adherents and exponents.
>
> I suppose not one of us has approached homeopathy otherwise than with doubt and mistrust; but facts have been too strong for skepticism."
>
> Sir John Weir, M.D. KLVD, M.B.
> Former physician to Great Britain's Royal Family

4. Muscle/Organ/Remedy Correlations

This section will list the author's personal experience with individual muscles and individual homeopathic remedies correlation. No list will be all inclusive as there are more than 3,000 homeopathic remedies, each one with many rubrics of its own. The standard applied kinesiology organ/gland/muscle/meridian correlation will be stated followed by a short list of the most commonly associated remedies. Included with each remedy will be a few keynotes to help the clinician in choosing it for manual muscle testing as previously discussed. A keynote is the leading characteristic of the homeopathic drug picture. It may be thought of as pathognomonic for a symptom complex. A remedy should never be chosen on the basis of a keynote only, rather the totality of symptoms correlated with applied kinesiology testing. However, they are many times useful in helping to select a remedy and to familiarize the clinician with them.

	ORGAN	MUSCLE	MERIDIAN
A.	**Brain**	**Supraspinatus**	**Conception Vessel**

1. Ammonium Muriaticum
- internal grief
- wants to cry but cannot
- apprehensive

2. Anacardium
- impaired memory
- confused thoughts
- weakness of sight and hearing

3. **Lycopodium**
   - uses wrong words
   - amnesia
   - spelling is backward
   - loss of self confidence

4. **Ignatia**
   - grief
   - sighs frequently
   - hysteria

5. **Apis**
   - brain swelling
   - drops things (numbness in fingers)

6. **Camphor**
   - collapse (mental and physical)

7. **Arnica**
   - concussion
   - head trauma
   - memory loss from head trauma

8. **Cicuta**
   - concussion resulting in convulsions

9. **Arsen. Alb.**
   - mental and physical debility
   - worse at night

10. **Aconite**
    - fear
    - anxiety
    - restless

11. **Graphites**
    - depression
    - overconcerned with spiritual matters

12. **Nat. Mur. (a chronic Ignatia)**
    - irritable
    - consolation aggravates
    - bites fingernails

13. **Gelsemium**
    - encephalitis
    - chills up and down spine
    - dizziness
    - drowsiness
    - motor paralysis

14. **Nux Vomica**
    - hangover
    - overindulges
    - overwork
    - fast life

15. **Belladonna**
    - headache that is throbbing, pounding
    - flushed face
    - migraine

16. **Bryonia**
    - headache worse on motion
    - splitting pain

17. **Glonoine**
    - congested head
    - headache, throbbing
    - sensitive to heat
    - frantic
    - sunstroke

18. **Pulsatilla**
    - headache from eating rich food
    - headache that is menstrual in nature

19. **Ruta Gav.**
    - headache from eye strain

20. **Sepia**
    - headache in menopause
    - easily offended
    - headache in menstruation (low back pain)
    - exhausted housewife

21. **Coffea**
    - hyperactivity

22. **Calc. Carb.**
    - obstinate
    - mentally and physically will overwork themselves to exhaustion
    - forgetful
    - melancholy

23. **China**
    - debility caused by fluid loss
    - indifferent
    - anemic
    - apathetic

24. **Chamomilla**
    - irritable
    - teething (infants)
    - cannot stand to be touched

25. **Cantharis**
    - sexual mania
    - urinary symptoms

26. **Cocculus**
    - dizziness
    - motion sickness

	ORGAN	MUSCLE	MERIDIAN
B.	Eyes	Upper Trapezius	Kidney

1. **Ledum**
    - black eye

2. **Allium Cepa**
    - burning
    - light sensitive

3. **Staphysagria**
    - chalazion
    - styes

4. **Chelidonium**
    - jaundice

5. **Euphrasia**
    - conjunctivitis
    - acid discharge
    - blocked tear duct

6. **Apis**
    - inflammation
    - swollen eye lids

7. **Argentum Nitricum**
    - inflammation
    - purulent discharge

8. **Zincum Met.**
    - itching at inner corner of eyes

9. **Arsen. Alb.**
    - photophobia
    - burning

10. **Kali Carb**
    - swollen eye lids
    - eyes stuck together in morning

	ORGAN	MUSCLE	MERIDIAN
C.	EarsUpper	Trapezius	Kidney

1. **Pulsatilla**
   - thick, green discharge
   - pain
2. **Belladonna**
   - severe earache
   - otitis externa
   - redness
3. **Aconite**
   - severe pain
   - post exposure to dry cold wind
   - restlessness
4. **Kali. Bi.**
   - blocked eustachian tube
5. **Hepar Sulph**
   - pus
   - rupture of eardrum
   - pain

	ORGAN	MUSCLE	MERIDIAN
D.	Sinus	Neck Flexors/Extensors	Stomach

1. **Kali Bi.**
   - chronic, thick catarrh
   - sneezing attacks
   - chronic cold
2. **Pulsatilla**
   - yellow, green discharge
   - sinusitis
3. **Silicea**
   - chronic sinusitis
   - chronic cold
4. **Allium Cepa**
   - acid discharge
   - watery, thin discharge
   - hay fever
   - drip, drip, drip
5. **Arsen. Alb.**
   - burning, running nose
   - hay fever
   - restlessness

6. **Nat. Mur.**
   - loss of smell and taste
   - started as runny nose which becomes stopped up
   - sneezing

7. **Gelsemium**
   - itching
   - influenza
   - body pain

	ORGAN	MUSCLE	MERIDIAN
E.	Thyroid	Teres Minor	Triple Warmer

1. **Iodum**
   - restlessness
   - hurried, nervous
   - allergy
   - worse from fasting, better from eating

2. **Anacardium**
   - low self esteem
   - better from eating
   - cruelty
   - needs to prove himself

3. **Silicea**
   - chilly, worse in cold
   - fatigue
   - poor metabolism of minerals
   - (defect in bones, teeth, etc.)
   - lacks self confidence
   - mental dullness

4. **Merc. Sol.**
   - night sweats
   - introverted
   - metallic taste
   - tremors
   - pharyngitis

5. **Calc. Carb.**
   - See under Parathyroid

	ORGAN	MUSCLE	MERIDIAN
F.	Parathyroid	Levator Scapula	Lung

1. **Calc. Carb.**
   - obstinate
   - overworked, overwhelmed
   - anxiety about health
   - fears heights
   - anemia
   - constant relapse of illness
   - coldness
   - obesity
   - face is round and pale
   - poor nutrition

2. **Lycopodium**
   - obstinate
   - low self confidence
   - cracks in heels
   - herpes
   - worse in morning
   - dyslexia
   - arrogant

3. **Calc. Fluor**
   - aneurysm

	ORGAN	MUSCLE	MERIDIAN
G.	Heart	Subscapularis	Heart

1. **Arnica**
   - chest tightness or constriction
   - fatigue
   - dyspnea
   - fears death
   - angina
   - left arm pain

2. **Cactus**
   - angina pectoris
   - blue lips
   - iron band sensation
   - weak heart
   - low blood pressure
   - suffocation
   - palpitations

3. **Crataegus**
   - angina pectoris
   - a great heart tonic
   - dyspnea on exertion
   - coronary artery stenosis

4. **Glonoine**
   - angina pectoris
   - pain on ascending
   - hypertension
   - confusion with dizziness
   - collapse

5. **Aspidosperma**
   - shortness of breath
   - angina pectoris
   - dizziness on rising

6. **Digitalis**
   - slow, feeble pulse
   - shortness of breath
   - sensation as if the heart would stop beating if the patient moved

7. **Lachesis**
   - pain down left arm
   - hypertension
   - palpitations
   - suffocation

8. **Aurum Met.**
   - hypertension
   - irregular pulse
   - headache
   - sleeplessness
   - depression, suicidal

9. **Lycopus Virginicus**
   - hypertension
   - cardiac asthma

10. **Amyl Nitrosum**
    - angina pectoris
    - poor circulation

	ORGAN	MUSCLE	MERIDIAN
H.	Lungs	Deltoids, Serratus Anterior Coracobrachialis	Lung

1. **Aconite**
   - acute asthma
   - restlessness
   - anxiety
   - dry cough
   - pleurisy
   - high fever

2. **Antim. Tart**
   - lung full of mucous
   - course rattling
   - cannot get the mucous out

3. **Arsen. Alb.**
   - asthma
   - cold perspiration
   - exhaustion
   - emphysema
   - restlessness
   - burning in chest

4. **Carbo Veg.**
   - asthma
   - indigestion
   - wheezing
   - suffocation

5. **Cuprum Met.**
   - constriction and spasm in chest
   - asthma
   - cough
   - cramping in fingers

6. **Dulcamara**
   - asthma brought on by damp weather

7. **Drosera**
   - main remedy for cough
   - hoarseness

8. **Ipecac**
   - asthma
   - wheezing
   - cough
   - bronchitis
   - nausea
   - suffocation
   - emphysema

9. **Bryonia**
   - bronchitis
   - worse on movement
   - dry cough (hacking)

10. **Tuberculinum**
    - shortness of breath
    - thick expectoration
    - rales
    - night sweats
    - T.B.

11. **China**
    - bronchitis
    - debility from loss of fluids

12. **Pulsatilla**
    - bronchitis
    - thick, green, yellow expectoration
    - cough, better by sitting up

13. **Sulphur**
    - burning sensation in chest
    - chronic bronchitis (bronchitis that fails to yield)
    - heat throughout chest

	ORGAN	MUSCLE	MERIDIAN
I.	Stomach	Pectoralis Major Clavicular (PMC), Biceps	Stomach

1. **Argent. Nit.**
   - acidity
   - ulcers/burning pain
   - hiatal hernia

2. **Carbo Veg.**
   - acidity
   - eructations/flatulence upwards
   - ulcer
   - aversion to meat

3. **Antim. Crud.**
   - eructation
   - overeating/ nausea
   - abdominal distention
   - diarrhea/constipation

4. **Nux Vomica**
   - fast life/hangover
   - indigestion
   - constipation

5. **Pulsatilla**
   - aversion to fatty food
   - aversion to fruit/green vegetables
   - flatulence
   - thirstlessness/dry mouth
   - constipation
   - loss of taste/smell

6. **Abies Nigra**
   - constriction at cardiac portion of stomach as if a hard boiled egg is lodged

7. **Lycopodium**
   - eructation
   - flatulence downwards
   - stomach immediately full even on the lightest ingestion of food
   - obstinate constipation
   - distension of lower abdomen
   - fermentation in gut

8. **China**
   - flatulence
   - bloating in middle of abdomen
   - abdomen has "packed full" sensation

9. **Cinnamonum**
   - hiccups
   - spasmodic diaphragm

10. **Ipecac**
    - premier remedy for vomiting
    - extreme nausea
    - morning sickness
    - severe gastritis
    - amoebic dysentary

	ORGAN	MUSCLE	MERIDIAN
J.	Gall Bladder	Popliteus	Gall Bladder

1. **Berberis**
   - gall stones
   - pain worse by pressure
2. **Chelidonium**
   - helps prevent gallstones
   - jaundice
   - bitter taste in mouth
   - pain radiates to right scapula

	ORGAN	MUSCLE	MERIDIAN
K.	Liver	Pectoralis Major Sternal (PMS), Rhomboids	Liver

1. Chelidonium
   - jaundice
   - bitter taste
   - enlarged liver
   - pain radiates to right scapula
2. **Hepar Sulph**
   - abscess of liver
   - jaundice
   - stitching pain in liver on movement
   - cirrhosis
3. **Silicea**
   - liver abscess
   - chronic jaundice
   - no appetite
   - increased thirst
   - cirrhosis
4. **Nux Vomica**
   - jaundice
   - enlarged liver
   - fast life
   - constipation
   - no thirst
   - worse in morning

5. **Chionanthus**
   - jaundice
   - constipation
   - urine dark colored
   - no appetite
   - colored stool

6. **Phosphorus**
   - fatty degeneration of liver
   - jaundice
   - congested liver
   - hepatitis/cirrhosis

	ORGAN	MUSCLE	MERIDIAN
L.	Pancreas	Latissimus Dorsi, Triceps	Spleen

1. **Belladonna**
   - pancreatitis
   - fever
   - redness
   - dilated pupils

2. **Syzygium Jambolanum**
   - sugar metabolism problems
   - copious urine
   - increased thirst
   - emaciation

3. **Arsen. Alb.**
   - sugar metabolism problems
   - dry mouth/skin
   - increased thirst
   - no appetite
   - fastidious

4. **Argent. Met.**
   - face pale
   - emaciation
   - diabetic gangrene
   - increased urine
   - swollen feet

5. **Iris Versicolor**
   - burning pain in region of pancreas
   - vomiting
   - diarrhea
   - pancreatitis

6. **Sulphur**
   - craves sweets
   - craves alcohol
   - headaches
   - burning type pains
   - increased thirst

	ORGAN	MUSCLE	MERIDIAN
M.	Spleen	Mid & Lower Trapezius	Spleen

1. **Ceanothus**
   - enlarged spleen
   - left sided pain
   - leukemia
2. **China**
   - loss of body fluids
   - irritable
   - anemia
   - weak mind
   - fear of animals
3. **Arsen Alb.**
   - anemia
   - anxiety
   - increased thirst
   - palpitations
4. **Nat. Mur.**
   - anemia
   - depression
   - worse by consolation
   - body cold/palms perspiring
   - numbness and tingling in extremities
   - grief
5. **Ferrum** (various forms, aceticum, phos., met.)
   - anemia
   - throbbing pain in head
   - fainting
   - pitting edema in extremities
6. **Phosphorus**
   - anemia
   - depression
   - palpitations
   - mental strain

	ORGAN	MUSCLE	MERIDIAN
N.	Small Intestines	Abdominals, Quadriceps	Small Intestine

1. **Iris Versicolor**
   - burning pain throughout
   - vomiting
   - increased saliva
   - duodenal ulcers
   - diarrhea

2. **Antim. Crud.**
   - effects from overeating
   - nausea
   - distention
   - eructations

3. **Carbo Veg.**
   - burning
   - acidity
   - any food distresses
   - aversion to dairy, wheat, and fats
   - no appetite

4. **Colocynthis**
   - agonizing pain made better by doubling up
   - crohn's disease
   - flatulence
   - diarrhea

5. **Chamomilla**
   - inflammation of small intestine
   - crohn's disease
   - ileocecal valve syndrome
   - flatulence
   - gripping type of pain

6. **Veratrum Alb.**
   - rice colored stool
   - cholera
   - collapse
   - cold sweat over body
   - vomiting

7. **Podophyllum**
   - gastroenteritis
   - vomiting
   - gushing, yellowish stool
   - crohn's disease

8. **Ipecac**
   - amoebic dysentary
   - vomiting
   - cutting type of pain
   - tenesmus

	ORGAN	MUSCLE	MERIDIAN
O.	Large Intestine	Tensor Fascia Lata (TFL)	Large Intestine

1. **Lachesis**
   - colitis
   - paroxysmal hot flashes
   - cold feet
   - constant pressure in rectum but no stool
   - offensive diarrhea

2. **Merc. Cor.**
   - fever with chills
   - dysentery
   - bloody, offensive stool
   - profuse perspiration
   - colitis

3. **Sulphur**
   - burning pains
   - no appetite
   - red lips
   - dysentery

4. **Trillium**
   - diarrhea (almost pure black)
   - mucous and blood in stool
   - colitis
   - dizziness

5. **Aloe**
   - flatulence
   - insecurity of rectum
   - abdominal bloating (pressure downward)
   - jelly-like mucous

6. **Ipecac**
   - amoebic dysentary
   - cutting type pain
   - stool color is green (like grass)

7. **Arsen. Alb.**
   - food poisoning
   - restlessness
   - dark colored stool
   - icy coldness
   - great exhaustion

8. **Podophyllum**
   - stool is offensive with jelly-like mucous
   - yellow/greenish stool
   - cholera
   - empty retching

9. **Secale Cor.**
   - olive green stool
   - icy cold body
   - cholera
   - exhaustion
   - cramping
   - does not want to be covered
   - involuntary stool

10. **Veratrum Alb.**
    - premier remedy for cholera
    - chronic vomiting
    - cold sweat
    - rice water stool
    - collapse

11. **Cina**
    - worms
    - parasites
    - stool color is green as grass
    - very cross
    - stool like pieces of popcorn

12. **Merc. Sol.**
    - lots of mucous in stool
    - mucous dysentary
    - tenesmus
    - whitish/gray stool

13. **Nux Vomica**
    - constipation
    - mucous dysentary

14. **Lycopodium**
    - obstinate constipation
    - stool very hard

	ORGAN	MUSCLE	MERIDIAN
P.	Appendix	Quadratus Lumborum	Large Intestine

1. **Belladonna**
   - severe pain in right lower quadrant (RLQ)
   - ileocecal valve syndrome
   - appendicitis
   - throbbing headaches
2. **Bryonia**
   - burning like pain in RLQ
   - worse for any movement
   - very thirsty for water

	ORGAN	MUSCLE	MERIDIAN
Q.	Rectum	Hamstring	Large Intestine

1. **Nitric acid**
   - pain as if splinter or sticks were piercing the anus
   - tenesmus
   - anal fistula/fissures
   - constipation
   - hemorrhoids
2. **Ratanhia**
   - rectum feels as if full of broken glass
   - burning pain
   - hemorrhoids
   - anal fissures
3. **Sulphur**
   - anal itching/redness
   - dry
   - worse in warm bed
   - burning type of pain
   - chronic constipation
4. **Millefollium**
   - bleeding (bright colored blood)
   - hemorrhoids
   - polyps
5. **Alumina**
   - constipation (especially in infants)
   - dryness
   - stool is hard, dry and knotty
6. **Hamamelis**
   - hemorrhoids
   - dark blood

7. **Aesculus Hipp**
   - anal burning
   - prolapse
   - hemorrhoids

8. **Ruta Grav.**
   - prolapse of rectum (on defecation) in women post parturition

	ORGAN	MUSCLE	MERIDIAN
R.	Kidney	Psoas, Iliacus	Kidney

1. **Cantharis**
   - nephritis
   - burning urination/pain
   - blood in urine
   - incontinence

2. **Terebinthina**
   - urine smells like violets
   - burning pain/urination
   - kidney stones
   - nephritis

3. **Phosphorus**
   - nephritis
   - blood in urine
   - hypertension

4. **Sulphur**
   - burning urination (scalding)
   - colorless urine

5. **Apis**
   - inability to control urine
   - pitting edema in extremities
   - stinging pain
   - nephritis
   - headache
   - puffy face
   - lumbago
   - scanty frequent urination

6. **Berberis**
   - kidney stones
   - burning sensation in urethra
   - dark urine
   - sore kidneys
   - thick mucous with bright red sediment
   - left sided

7. **Lycopodium**
   - kidney stones
   - severe backache
   - obstinacy
   - abdominal bloating
   - right sided

8. **Urtica Urens**
   - kidney stone
   - thick urine
   - hives
   - gout

9. **Sarsaparilla**
   - renal colic
   - pain at conclusion of urination
   - urine scanty
   - kidney stones

10. **Nat. Mur.**
    - bashful kidneys (unable to urinate in front of others)
    - chronic nephritis
    - depression
    - headache

	ORGAN	MUSCLE	MERIDIAN
S.	Bladder	Peroneus Longus/ Brevis/Tertius Anterior Tibialis, Sacrospinalis	Bladder

1. **Benzoic Acid**
   - bed wetting
   - repulsive odor of urine
   - brown colored urine

2. **Cantharis**
   - cystitis (premier remedy)
   - burning urination (scalding)
   - never get done feeling post urination
   - blood in urine

3. **Asparagus**
   - cystitis
   - mucous and pus in urine
   - burning type of pain
   - frequent urination

4. **Apis**
   - cystitis
   - stinging pain
   - edema
   - frequent urination

5. **Sarsaparilla**
   - cystitis
   - pain so severe on urination patient screams
   - blood in urine

6. **Terebinthina**
   - urine smells of violets
   - cystitis
   - blood in urine
   - smokey colored urine
   - burning pain

	ORGAN	MUSCLE	MERIDIAN
T.	Adrenal	Sartorius/Gracilis, Posterior Tibialis, Soleus, Gastrocnemius	Circulation/Sex

1. **Arsen. Alb.**
   - fastidious
   - restlessness
   - exhaustion
   - unquenchable thirst
   - acidity in stomach
   - nausea

2. **Phosphorous**
   - dizziness on standing
   - fatigue
   - poor wound healing
   - worse for any physical/mental work
   - depression

3. **Nux Vomica**
   - fast life
   - overwhelmed/collapse/fatigue
   - compulsive
   - impatient
   - easily offended/anger
   - paroxysmal sneezing
   - craves spicy/ alcohol/ caffeine/fat
   - insomnia

4. **Argent. Nit.**
   - ulcers
   - highly emotional
   - anxiety
   - worse from eating sugar (but craves it)
   - palpitations
   - impotence
   - severe weakness (periodic)

5. **Calc. Carb.**
   - frequent relapse of sickness
   - no stamina
   - anemic
   - coldness/chilly

	ORGAN	MUSCLE	MERIDIAN
U.	Sex Organs	Gluteus Maximus/ Medius, Piriformis, Adductors	Circulation/Sex

Note: This section will be divided into female/male divisions.

I. Female

1. **Pulsatilla**
   - starts menstruation relatively late
   - painful menses/scanty/irregular
   - tears easily
   - mild, gentle disposition
   - restless
   - fibroid tumors
   - thick, yellow-green vaginal discharge
   - tends to be blonde haired, blue eyed

2. **Sepia**
   - amenorrhea
   - narrow at the hips
   - tends to be brunette, tall, thin
   - irritable/sarcastic in nature
   - scanty menses
   - PMS with lumbago
   - uterine prolapse
   - itching of vulva
   - at menopause - hot flashes, painful coitus
   - ulceration of cervix

3. **Staphysagria**
   - honeymoon cystitis
   - sweet/suppressed patients
   - ailments from grief/depression
   - styes
   - throws things when angry
   - genital warts
   - frequent masturbation
   - trembling from anger
   - sleepy all day but has insomnia at night

4. **Platina**
   - contemptuous/rude
   - haughty/narcissistic/superiority complex
   - aversion to children
   - increased libido/promiscuity
   - sexual perversion
   - herpes
   - ovarian cysts
   - violent impulses/delusions

5. **Lachesis**
   - jealous type
   - loquacious/sarcastic
   - passionate/intense
   - left sided symptoms
   - fears or likes snakes
   - PMS (headache, depression, irritable)
   - hypersexual
   - inflamed breasts/sensitive
   - climacteric difficulty with hemorrhoids
   - hot flashes and palpation
   - purple colored varicose veins (especially during pregnancy)
   - aggravation from heat

6. **Gelsemium**
   - PMS with lumbago
   - timid/quiet
   - painful coitus
   - wants to be left alone
   - fatigue/weakness
   - trembling
   - false labor pains
   - anxiety when has to perform (stage-fright)

7. **Sabina**
   - tendency to miscarriage
   - profuse menstruation with bright blood
   - PMS (pain shooting up vagina)
   - bleeding between periods
   - cysts
   - lowback pain radiating to the pubes
   - condylomata

8. **Lillium Tig.**
   - scanty menses
   - uterine prolapse (bearing down sensation)
   - irritable/hurried
   - craves meat
   - depression/mania
   - makes everyone around her walk on egg shells
   - brown vaginal discharge
   - PMS
   - hypersexual

9. **Silicea**
   - cysts/abscesses
   - itching of vulva
   - profuse menstruation/icy coldness
   - mastitis
   - sore nipples
   - premier remedy for gonorrhea
   - lack of self confidence
   - anxiety
   - weakness/fatigue
   - poor mineral metabolism (osteoporosis, hair, nails, etc.)

10. **Lac Caninum**
    - swollen, painful breast before menstruation
    - excitable/extroverted/anxiety
    - fears or loves snakes
    - depressed/mania
    - changeable in physical and mental symptoms
    - headache (alternate sides)
    - high libido/loss of libido

II. Male

1. **Sulphur**
   - premature ejaculation
   - impotence
   - burning/itching
   - egotistic/disgusted with others
   - messy
   - intellectual
   - offensive perspiration
   - aggravation from heat

2. **Lycopodium**
   - impotence/premature ejaculation
   - low self confidence/esteem
   - anxiety
   - dyslexia
   - worse in morning
   - gray hair
   - herpes
   - promiscuity/adultery
   - cracks in heels
   - offensive foot odor

3. **Nux Vomica**
   - fast life
   - workaholic/competitive/impatient
   - craves sweet, spices, alcohol, caffeine
   - constipation
   - worse in morning
   - easily offended
   - collapse/fatigue
   - high libido/promiscuity

4. **Graphites**
   - no sex drive (lack of interest) or increased sex drive
   - basic earthy type
   - poor mental concentration (slow thinking)
   - obesity
   - herpes
   - loss of erection during coitus

5. **Arsen. Alb.**
   - burning/offensive discharge
   - herpes
   - panic attacks/anxiety
   - restlessness
   - perfectionist/fastidious

- phobias
- chilly/worse to cold
- malignancy

6. **Thuja**
   - inflammation of penis
   - genital warts
   - rheumatism
   - prostatic hypertrophy
   - urethritis
   - oily perspiration
   - depression
   - low self esteem
   - never well since vaccination
   - herpes
   - forked stream of urine
   - high sex drive

7. **Conium**
   - prostatitis (prostatic hypertrophy)
   - premature ejaculation
   - malignancy
   - mental dullness/confusion
   - emotionally flat
   - photophobia

8. **Pareira Brava**
   - prostatic hypertrophy
   - painful urination/urethritis
   - urine retention
   - pain extending down to thigh when standing to urinate

9. **Chimaphilla**
   - prostatitis/prostate hypertrophy
   - urinates with feet spread far apart
   - blood in urine
   - frequent urging of urination
   - warts

10. **Baryta Carb.**
    - prostatic hypertrophy
    - frequency of urination (geriatrics)
    - dullness of mind/confusion
    - dribbling post urination
    - childish behavior
    - shy/passive
    - impotence
    - decreased sex drive
    - atrophy of genitalia

	ORGAN	MUSCLE	MERIDIAN
U.	Thymus	Infraspinatus	Triple Warmer

1. **Eupatorium Perf.**
   - influenza with bone pain
   - bruised feeling
   - better with lots of blankets
   - thirst for cold drinks
   - fever

2. **Gelsemium**
   - influenza with muscle ache
   - chills up/down spine
   - heaviness of head
   - heavy eyes
   - no thirst

3. **Aconite**
   - acute violent onset
   - exposure to dry cold wind
   - congestion
   - fever with thirst
   - mental anguish

4. **Belladonna**
   - acute violent onset
   - redness
   - dilated pupils
   - fever with no thirst

5. **Pulsatilla**
   - chilly
   - weeps easily
   - dry, but no thirst
   - better by open air
   - greenish discharge
   - childhood diseases

6. **Nat. Mur.**
   - periodic chills/fever
   - very thirsty
   - chattering of teeth
   - high fever (rolling from side to side)
   - worse for consolation
   - constipation

7. **Bryonia**
   - high fever
   - childhood diseases
   - worse for any movement
   - irritable
   - dry, painful cough
   - chesty colds

8. **Infulenzinum**
   - influenza (all signs/symptoms)

	ORGAN	MUSCLE	MERIDIAN
V.	Spine	Teres Major	Governing Vessel

1. **Arnica**
   - injury to back
   - bruising
   - pain

2. **Aconite**
   - intense pain
   - intervertebral disc syndrome
   - sudden onset
   - numbness/tingling

3. **Bryonia**
   - pain on movement
   - stiffness
   - disc problem
   - stitching type of pain

4. **Calc. Carb.**
   - pain from osteoporosis
   - kidney pain

5. **Chelidonium**
   - stiff neck
   - pain in right scapula area

6. **China**
   - ligament stretch syndrome
   - pain as if being stabbed with a knife in the back

7. **Cimicifuga**
   - torticollis
   - neck pain of all types
   - rheumatic type of pain
   - disc syndrome
   - numbness/tingling into fingers

8. **Hypericum**
   - coccyx pain
   - severe pain
   - injured nerves (concussions)

9. **Rhus Tox.**
   - pain relieved by motion
   - strain/sprain injury
   - exposure to wet
   - better lying on hard surface
   - disc syndrome
   - myelitis

10. **Ruta Grav.**
    - sprain/strain injury
    - ligament stretch syndrome

11. **Cocculus**
    - cracking sound heard while moving head
    - dizziness
    - motion sickness

12. **Dulcamara**
    - pain of rheumatic type brought on by wet damp weather

CONCLUSION

> "We are currently undergoing a paradigm shift in science - perhaps the greatest shift of its kind to date."
>
> Lawrence Beynam (1978)

Muscle/organ-gland dysfunction as revealed by manual muscle testing is an exciting, new and viable approach to diagnosis and health care. When homeopathy changes the manual muscle test it is the interaction of mind with matter utilizing quantum events occurring in neurons.

The triad of health; structural, chemical, and emotional currently forms the philosophical basis for applied kinesiology. I propose that homeopathy be included in the triad of health which forms the apex and joins the three sides into one creating a three sided pyramid. This shifts the current two dimensional paradigm into a three dimensional one. Holograms are three dimensional.

According to Einstein's famous equation, $E = mc^2$ nothing is pure energy or pure matter. The universe is not black or white (purely structural, chemical, and/or emotional), but rather exists in vibrational or energetic expression. Every aspect is itself, a whole containing all the information in itself; just as if you cut a hologram in pieces, each piece is a complete picture of the whole. Each part is a piece of the large comprehensive picture. Therefore

each aspect of the triad of health expresses itself vibrationally, and all of these energetic expressions intermingle within themselves so that each carries with it information about the whole. To summarize then, since each vibrational energetic expression of each side contains information about the other sides within the triad of health, this naturally forms an apex as a bridge between all three sides. Therefore this becomes holistic knowledge and when in harmony is health.

> "– to understand anything one must penetrate sufficiently deeply towards this ultimate pattern. – everything in this universe bears some relation to our own nature, its needs and potentialities. Every process mirrors some process in overview – ."
>
> L. L. Whyte (1954)
> Scientist/Author

Muscles are related to organ/glands via the five factors of the intervertebral foramen. There are specific homeopathic remedies related to organ/glandular dysfunction in the human body. A relationship exists between muscles and homeopathic remedies which can be verified utilizing manual muscle testing. This represents via the hologramic paradigm, the energy interference pattern.

APPENDIX

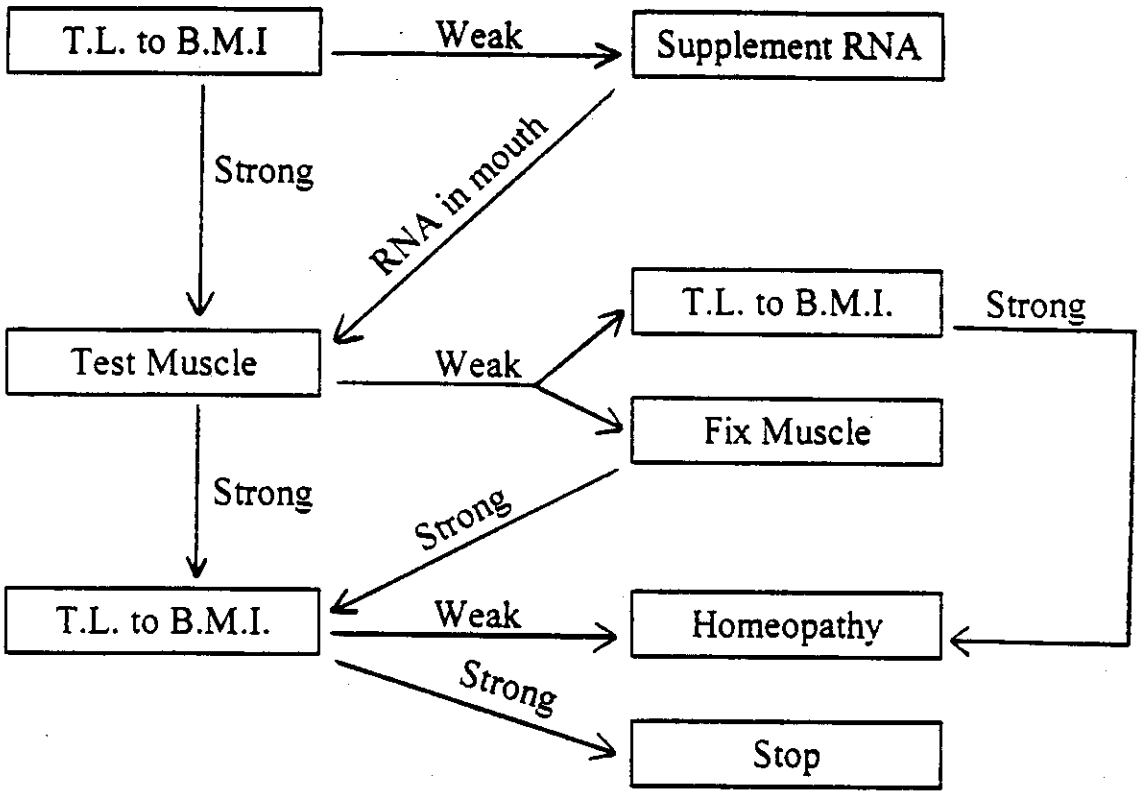
A. Applied Kinesiology and Homeopathy:

A Muscle/Organ/Remedy Correletion Procedure

1. Therapy localize to bladder one points (body memory indicator points - BMI) bilaterally with index and middle fingers of the same hand in the clear; if this weakens your indicator muscle, supplement with RNA, if not proceed to two or three.*
2. Test any muscle; if it tests weak in the clear correct the muscle dysfunction, then therapy localize to the BMI points with the index and middle fingers of the same hand and retest the specific muscle; if it re-weakens upon manual muscle testing, then test for re-strengthening against appropriate homeopathic remedy.
3. Therapy localize to muscle, if this causes your strong indicator muscle to weaken, correct the dysfunction and/or cross therapy localize (two-point) to the BMI points. If this negates your therapy localization then homeopathy is indicated and test appropriate remedies.

* *Footnote:* 1. The term and use of body memory indicator points (bladder one points) for identification of the need for homeopathy was discovered by Dr. Scott Walker (NET).

B. Applied Kinesiology and Homeopathy Flow Chart



C. Muscle/Organ/Meridian/Remedies

Muscle	*Organ/Gland*	*Meridian*
A. Supraspinatus	**Brain**	**Conception Vessel**

1. Ammonium Mur.
2. Anacardium
3. Lycopodium
4. Ignatia
5. Apis
6. Camphor
7. Arnica
8. Cicuta
9. Arsenicum Alb.
10. Aconite
11. Graphites
12. Natrum Mur.
13. Gelsemium
14. Nux Vomica
15. Belladonna
16. Bryonia
17. Glonoine
18. Pulsatilla
19. Ruta Grav
20. Sepia
21. Coffea
22. Calc. Carb.
23. China
24. Chamomilla
25. Cantharis
26. Cocculus

Muscle	*Organ/Gland*	*Meridian*
B. Upper Trapezius	**Eyes**	**Kidney**

1. Ledum
2. Allium Cepa
3. Staphysagria
4. Chelidonium
5. Euphrasia
6. Apis
7. Argentum Nit.
8. Zincum Met.
9. Arsen Alb.
10. Kali. Carb.

Muscle	*Organ/Gland*	*Meridian*
C. Upper Trapezius	**Ears**	**Kidney**

1. Pulsatilla
2. Belladonna
3. Aconite
4. Kali. Bi.
5. Hepar Sulph.

Muscle	*Organ/Gland*	*Meridian*
D. Neck Flexors	**Sinus**	**Stomach**

1. Kali Bi
2. Pulsatilla
3. Silicea
4. Allium cepa
5. Arsen Alb.
6. Nat. Mur.
7. Gelsemium

Muscle	*Organ/Gland*	*Meridian*
E. Teres Minor	**Thyroid**	**Triple Warmer**

1. Iodum
2. Anacardium
3. Silicea
4. Merc. Sol.
5. Calc. Carb.

Muscle	*Organ/Gland*	*Meridian*
F. Levator Scapula	**Parathyroid**	**Lung**

1. Calc. Carb.
2. Lycopodium
3. Calc. Flour.

Muscle	*Organ/Gland*	*Meridian*
G. Subscapularis	**Heart**	**Heart**

1. Arnica
2. Cactus
3. Crataegus
4. Glonoine
5. Aspidosperma
6. Digitalis
7. Lachesis
8. Aurum Met.
9. Lycopus Virginicus
10. Amyl Nitrosum

Muscle	*Organ/Gland*	*Meridian*
H. Serratus Anterior/Deltoids/ Coracobrachialis	**Lung**	**Lung**

1. Aconite
2. Antimonium Tart
3. Arsen Alb.
4. Carb Veg.
5. Cuprum Met.
6. Dulcamara
7. Drosera
8. Ipecac
9. Bryonia
10. Tuberculinum
11. China
12. Pulsatilla
13. Sulphur
14. Millefolium

Muscle	*Organ/Gland*	*Meridian*
I. Pectoralis Major Clavicular Div.(PMC), Biceps	**Stomach**	**Stomach**

1. Argentum Nit.
2. Carbo Veg
3. Antimonium Crud.
4. Nux Vomica
5. Pulsatilla
6. Abies Nigrum
7. Lycopodium
8. China
9. Cinnamonum
10. Ipecac

Muscle	*Organ/Gland*	*Meridian*
J. Popliteus	**Gall Bladder**	**Gall Bladder**

1. Berberis
2. Chelidonium

Muscle	*Organ/Gland*	*Meridian*
K. Pectoralis Major Sternal (PMS) Rhomboids	**Liver**	**Liver**

1. Chelidonium
2. Hepar Sulph.
3. Silicea
4. Nux Vomica
5. Chionanthus
6. Phosphorus

Muscle	*Organ/Gland*	*Meridian*
L. Latissimus Dorsi, Triceps	**Pancreas**	**Spleen**

1. Belladonna
2. Syzygium Jambolanum
3. Arsen Alb.
4. Argent Met.
5. Iris Versicolor
6. Sulphur

Muscle	*Organ/Gland*	*Meridian*
M. Middle/Lower Trapezius	**Spleen**	**Spleen**

1. Ceanothus
2. China
3. Arsen Alb.
4. Nat. Mur
5. Ferrum
6. Pulsatilla

Muscle	*Organ/Gland*	*Meridian*
N. Abdominals, Quadriceps	**Small Intestine**	**Small Intestine**

1. Iris Versicolor
2. Antimonium Crud.
3. Carbo Veg.
4. Colocynthus
5. Chamomilla
6. Veratrum Alb.
7. Podophyllum
8. Ipecac

Muscle	*Organ/Gland*	*Meridian*
O. Tensor Fascia Lata (TFL)	**Large Intestine**	**Large Intestine**

1. Lachesis
2. Merc. Cor.
3. Sulphur
4. Trillium
5. Aloe
6. Ipecac
7. Arsen Alb.
8. Podophyllum
9. Secale Cor.
10. Veratrum Alb.
11. Cina
12. Merc. Sol.
13. Nux Vomica
14. Lycopodium

Muscle	*Organ/Gland*	*Meridian*
P. Quadratus Lumborum	**Appendix**	**Large Intestine**

1. Belladonna
2. Bryonia

Muscle	*Organ/Gland*	*Meridian*
Q. Hamstrings	**Rectum**	**Large Intestine**

1. Nitric Acid
2. Ratahnia
3. Sulphur
4. Millefollium
5. Alumina
6. Hammamelis
7. Aesculus Hipp
8. Ruta Grav.

Muscle	*Organ/Gland*	*Meridian*
R. Psoas, Iliacus	**Kidney**	**Kidney**

1. Cantharis
2. Terebinthina
3. Phosphorus
4. Sulphur
5. Apis
6. Berberis
7. Lycopodium
8. Urtica Urens
9. Sarsaparilla
10. Nat. Mur.

Muscle	*Organ/Gland*	*Meridian*
S. Peroneus Longus/Brevis/ Tertius, Anterior Tibialis, Sacrospinalis	**Bladder**	**Bladder**

1. Benzoic Acid
2. Cantharis
3. Asparagus
4. Apis
5. Sarsaparilla
6. Terebinthina

	Muscle	*Organ/Gland*	*Meridian*
T.	**Sartorius/Gracilis/Posterior Tibialis, Soleus/Gastrocnemius**	**Adrenals**	**Circulation/Sex**

1. Arsen Alb.
2. Phosphorus
3. Nux Vomica
4. Argent. Nit.
5. Calc. Carb.
6. China

	Muscle	*Organ/Gland*	*Meridian*
U.	**Gluteus Maximus/Medius Piriformis/Adductors**	**Sex Organs**	**Circulation/Sex**

A. Female
1. Pulsatilla
2. Sepia
3. Staphysagria
4. Platina
5. Lachesis
6. Gelsemium
7. Sabina
8. Lilium Tig
9. Silicea
10. Lac Caninum

B. Male
1. Sulphur
2. Lycopodium
3. Nux Vomica
4. Graphites
5. Arsen Alb.
6. Thuja
7. Conium
8. Pareira Brava
9. Chimaphilla
10. Baryta Carb.

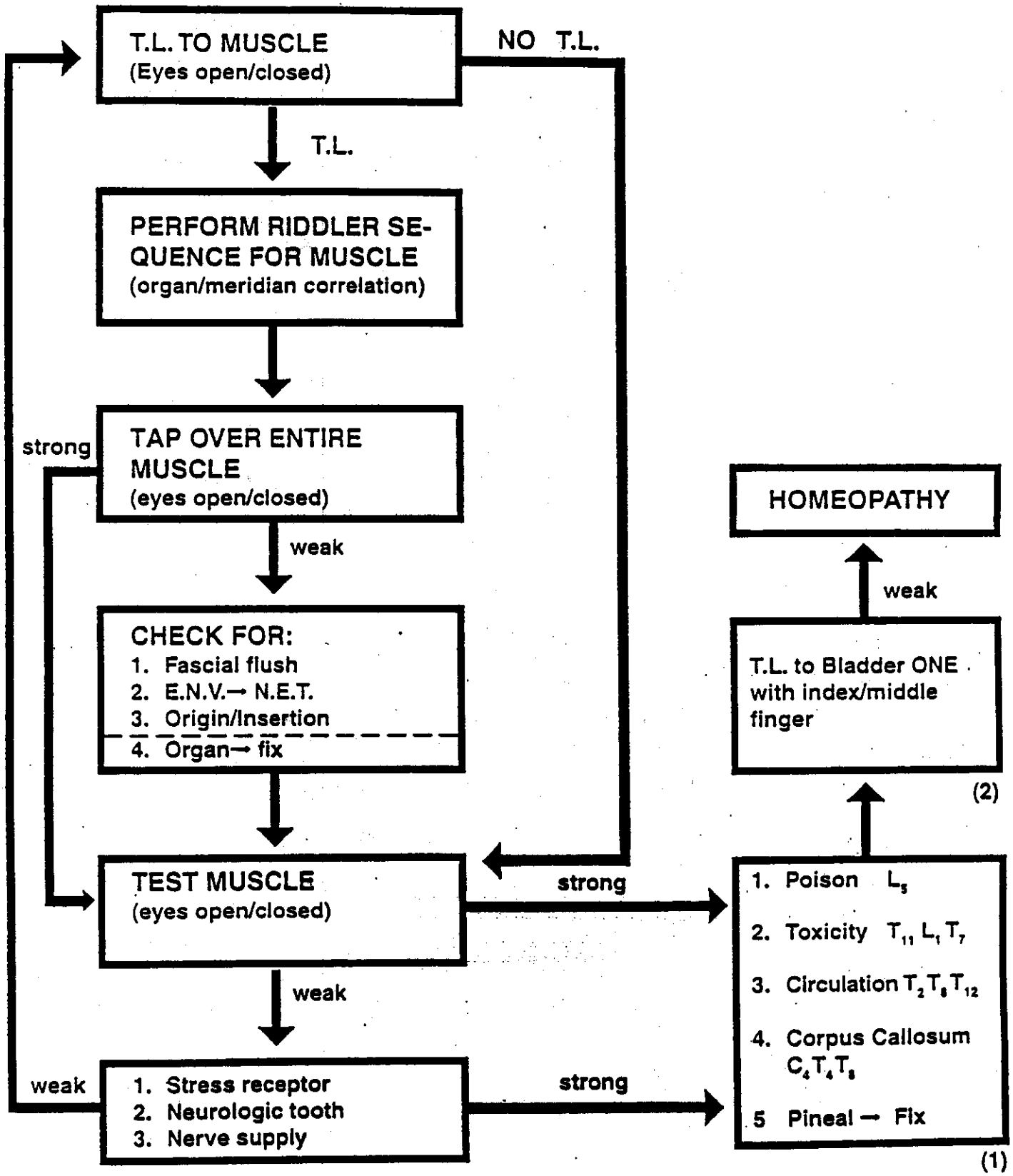
	Muscle	*Organ/Gland*	*Meridian*
V.	**Infraspinatus**	**Thymus**	**Triple Warmer**

1. Eupatorium Perf.
2. Gelsemium
3. Aconite
4. Belladonna
5. Pulsatilla
6. Nat. Mur.
7. Bryonia
8. Influenzinum

	Muscle	*Organ/Gland*	*Meridian*
W.	**Teres Major**	**Spine**	**Governing Vessel**

1. Arnica
2. Aconite
3. Bryonia
4. Calc. Carb.
5. Chelidonium
6. China
7. Cimicifuga
8. Hypericum
9. Rhus Tox.
10. Ruta Grav.
11. Cocculus
12. Dulcamara

Total Integration of Muscles Flow Chart



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Neurological Responses of Infrasonic Qi-Gong

Douglas N. Hibbard, D.C.

Abstract

Ten subjects were exposed to Infrasonic Qi-Gong to assess its influence on common kinesiological indicators related to the pyramidal distribution of weakness. The result was an immediate, therapeutic change in most subjects tested.

Introduction

For many thousands of years the "healing touch" discipline of Qi-Gong was used to treat sickness in China. The art was past in secret from father to son, a practice which maintained limited numbers of Qi-Gong masters, thus ensuring a level of job security. The only books written about Qi-Gong were in monasteries and most of these were lost or destroyed during Mao's Cultural Revolution. More recently, traditional healing practices resurfaced in China, including Qi-Gong.

The technological discovery of Qi-Gong came when an acoustics researcher, Dr. Lu Yan Fang, decided to test a Qi-Gong master for sonic emissions from his hands. She found him to emit a strong signal 100 times the emission of normal persons. The frequency emitted hovers around 20 cycles per second, well below the range audible to the human ear.

Dr. Lu constructed a device that reproduces this emission in order to test its potential physiological effects. Electro-encephlographic changes were measured in animals and humans when infrasonic stimulation was applied towards the cranium. The infrasonic device amplified the alpha rhythm of the E.E.G. signal particularly in the frontal lobe. This alpha state is known to occur in certain types of meditation and correlates with a deep physiologic relaxation.

In this study, I tested effects of the infrasonic Qi-Gong device on volunteers to assess indicators which commonly accompany the pyramidal distribution of weakness. Please review Dr. Michael Allen's fine description of this pattern in the 1995-1996 collected papers.[1]

Materials and Methods

Parameters tested in this study were all done with the subject in the supine position and were as follows: 1. Range of motion (passive internal thigh rotation.[2] 2.) Length indicators (out stretched arm length) 3. Standard testing of muscles related to pyramidal distribution of weak-ness.

An infrasonic QGM therapeutic massage device set on the low position was directed towards the cranium from a distance of approximately 5 inches while the parameters previously mentioned were evaluated. Nine subjects were evaluated before and within one minute of the machine being turned on. An effort was made to keep the subject from knowing when the device was in the on position.

Results

Table 1 shows the changes observed while the machine was turned on.

Subject	Muscles Improved	P.I.T.R. Equalizes	Arm Length Equalizes
1	YES	*	YES
2	YES	YES	*
3	YES	*	YES
4	NO	NO	YES
5	YES	YES	YES
6	NO	YES	NO
7	YES	YES	YES
8	YES	YES	YES
9	NO	NO	NO

**This parameter could not be tested due to physical limitation*

Muscle strength was improved in 67 percent of subjects tested. Passive internal thigh rotation became equal in 71 percent of those tested and out stretched arms equalized in 75 percent.

Discussion

Relative passive internal thigh rotation and outstretched arm length comparison were assessed because they can serve as postural indicators of pyramidal weakness.[3] In those patients with pyramidal distribution of weakness and cleared of any neurological disorganization, it is common to see certain postural deviations. Typically there is increased left internal thigh rotation and longer relative right arm in the patient with right pyramidal weakness and vice versa for left pyramidal weakness. This can then be correlated with muscle testing, blind spot testing and other indicators of pyramidal distribution of weakness.

In this small study, the Qi-Gong device appears to have rather immediate, observable effects on a majority of subjects. Because the device was directed towards the cranium in a similar manner to the previously mentioned studies in China, it is probable that the effects we observed were also mediated by sonic wave stimulation of the central nervous system. The specific neurophysiology is unclear and I will defer to my more neurologically educated colleagues to speculate

The changes observed eventually returned to their previous state when the machine was turned off. But the influence of infrasonic stimulation certainly appears positive. More applied kinesiological evaluation of the Qi-Gong device is warranted.

Clinically the Qi-Gong is very helpful as an adjunct to other procedures, especially with anxious or debilitated patients. It can be applied safely to any area of the body and has been used beyond 24 hours continuously on severely debilitated patients with only therapeutic effects observed.

Conclusion

The infrasonic Qi-Gong massager appears to have direct neurological influences. The studies done in China concur with this small study in that these influences are helpful in improving function within the nervous system in most subjects tested. Future studies to assess the scope of applications within natural health care could only improve the positive influences of this impressive instrument.

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Primary Alarm Point Technique

Simon King B., App.Sc.(Chiro)., DIBAK

Abstract

This paper presents a method of applied kinesiology diagnosis based on the monitoring capability of the acupuncture meridian system through the alarm points to find the one diagnostic point which will remove all positive indicators, thereby giving the maximum therapeutic response for the least amount of intervention. The technique is not symptom based, does not limit therapeutic options and uses no "new" points but often seems to resolve patient's symptoms on a long-term basis with a minimum amount of intervention by the practitioner.

Key Words: applied kinesiology, alarm points

Introduction

While there are hundreds of different diagnostic and therapeutic techniques in chiropractic, osteopathy and applied kinesiology, only those which are most needed by that patient on that day at that moment will have the greatest therapeutic effect. A patient may present with many positive findings which could be interpreted as needing treatment, but in many cases, in spite of the expertness with which those factors are corrected, the patient returns with similar signs and symptoms indicating that his/her body was not able to use the input at that time. The search goes on for a way to find the patient's priority or what I call the rate-limiting step.[1]

Neurolymphatic points are used diagnostically and therapeutically in applied kinesiolgy. They can be therapy localized to determine if they are active and then stimulated to return a muscle weakness to normal strength.[2]

Alarm points are the acupuncture system's monitoring points. They will respond if a meridian is in either over-energy or under-energy, facilitated or inhibited.[3]

I have found that a given patient might be exhibiting multiple muscle weaknesses, often bilateral, each with a positive therapy localization to its own neurolymphatic. Treating each of these in turn might be an option but is not always practical. I found that if I took one of the involved neurolymphatics and therapy localized it using a strong indicator, I could quickly locate one alarm point which negated my positive TL. To my surprise, this one alarm point not only negated that neurolymphatic, but often eliminated every other

positive neurolymphatic and muscle weakness. On those occasions when this one alarm point did not remove every weakness, I found that repeating the process using a different positive neurolymphatic (from another bilaterally weak muscle) as my starting point, I could then retest the alarm points to find what I called the "Primary Alarm Point" or PAP.

I also found that if I let the patient therapy localize the PAP and could find a way of correcting that one weakness using whatever techniques seemed appropriate, then all of the patient's muscle weakness would be resolved and the patient would often be asymptomatic and well on the way to a full recovery.

Summary of Procedures

The technique is summarized as follows:

1. Test the major stabilizing muscles and/or those corresponding to the 12 meridians plus GV and CV.
2. Choose any one of the weak muscles and have the patient therapy localize that muscle's anterior neurolymphatic point. If the point is a bilateral one, it does not seem to matter which one is therapy localized.
3. Using a strong indicator and the patient's TL, use your own hand to therapy localize each of the alarm points. Again, if the alarm point is bilateral, it does not seem to matter which one is used (in rare cases it is possible to have to check both points).
4. The PRIMARY alarm point is the one which fulfills the following criteria.
   a) It must negate every muscle found weak on initial testing.
   b) At least one pair of its own related muscles should be weak in the clear bilaterally.
5. Find any strong muscle to use as an indicator. This will go weak when the patient therapy localizes the PAP.
6. Correct the PAP using whatever modality seems most appropriate e.g.
   - Spinal, visceral or cranial adjusting
   - Nutrition
   - Homeopathy
   - Emotional techniques
7. Recheck the TL to the primary alarm point supine and prone, to make sure it is now negative.
8. Recheck all of the muscles found weak in step 1 above to make sure they now test normally.

Notes on the PAP technique.

Although not classic Alarm points, CV24 and GV27 seem to act as alarm points and are sometimes found to be the primary alarm point using this technique.

Although the technique often works when muscles are weak unilaterally, this may be due to local muscle injury (spindle cell, GTO etc.). The technique works best when applied to multiple bilateral weaknesses.

Do check the muscles related to the meridian of the PAP to see whether they are weak in the clear. Often only one of the pairs of related muscles is weak. Sometimes the muscles only show weak after the alarm point has been challenged but normally I find that I have forgotten to test them the first time.

Notes on structural corrections for PAP

If the alarm point is bilateral, it does not seem to matter which one is used as they seem to react identically.

If correcting the point structurally, have the patient therapy localize the PAP to put an indicator muscle into weakness. Have the patient take a full inspiration and expiration (or any other respiratory challenge) to test for a change in the muscle. If the indicator does not change, put the cervical spine into lateral flexion both sides to check for cervical involvement. If lateral flexion to the right negates the weakness, bring the patient's neck back to neutral and use a sustained challenge on each of the cervical vertebrae in turn pushing from right to left, slightly superior to inferior (lateral flexion). When you find the segment and direction which negates the weakness, adjust in that direction which negated the weakness. Once the alarm point is no longer therapy localizes with the patient supine, turn the patient prone and have the patient again hold the anterior alarm point, and test a strong indicator muscle. Use a sustained challenge throughout the thoracic and lumbar spine until the positive TL is negated. Adjust as indicated.

Cervical involvement can usually be confirmed when lateral flexion of the neck restores the strength of the indicator muscle while the PAP is therapy localized.

The prone correction will almost always involve adjusting the associated point on the bladder meridian although other adjustments may be needed. It is rare to have to adjust more than 3 segments with the patient prone before the associated point shows; adjust this and the technique is finished. Recheck all of the initial positive findings.

This technique does not seem to identify the following conditions which should be corrected before finding the primary alarm point.

- Cervical Disc lesions
- Lumbar Disc lesions
- Local muscle problems
- Weight bearing lesions
- Pyramidal distribution of weakness

What if nothing is weak?

If no weaknesses is found in the clear, sit the patient up and test any available muscles such as gluteus medius or TFL; if weak bilaterally, have the patient lie supine, TL the relevant neurolymphatic and proceed as in No. 2 above.

Then extend hips and cervical spine and test a strong indicator. Proceed as above.

Other postural stress may be applied to elicit hidden weakness of a meridian in certain postures.

If there is still no weakness and generalized hypertonicity is suspected, TL to the ipsilateral K27 or use any of the other tests for hypertonicity. If this makes an ipsilateral strong indicator fail, challenge each of the alarm points in turn and find the one which strengthens. Tap the sedation point of this meridian which is interpreted as being hypertonic. This normally allows you to complete the technique in the fashion described above. I find generalized hypertonicity to be extremely rare using this technique.

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Longitudinal Meningeal Tension

James Otis, D.C.

Abstract

Anterior and/or posterior vectors of pull in the falx cerebri cause areas of longitudinal compression or traction in the sagittal suture. Signals from mechanoreceptors in the sagittal suture influence neural pattern generators to cause body-wide patterns of muscle facilitation and muscle inhibition. Percussion of the external occipital protuberance sends waves of pressure through the meningeal system and stimulates mechanoreceptors which monitor meningeal tension. It is used as a diagnostic procedure to amplify the body's awareness of meningeal tension. Correlations between four types of longitudinal tension in the sagittal suture, patterns of muscle strength, and reaction to movement are discussed.

Introduction

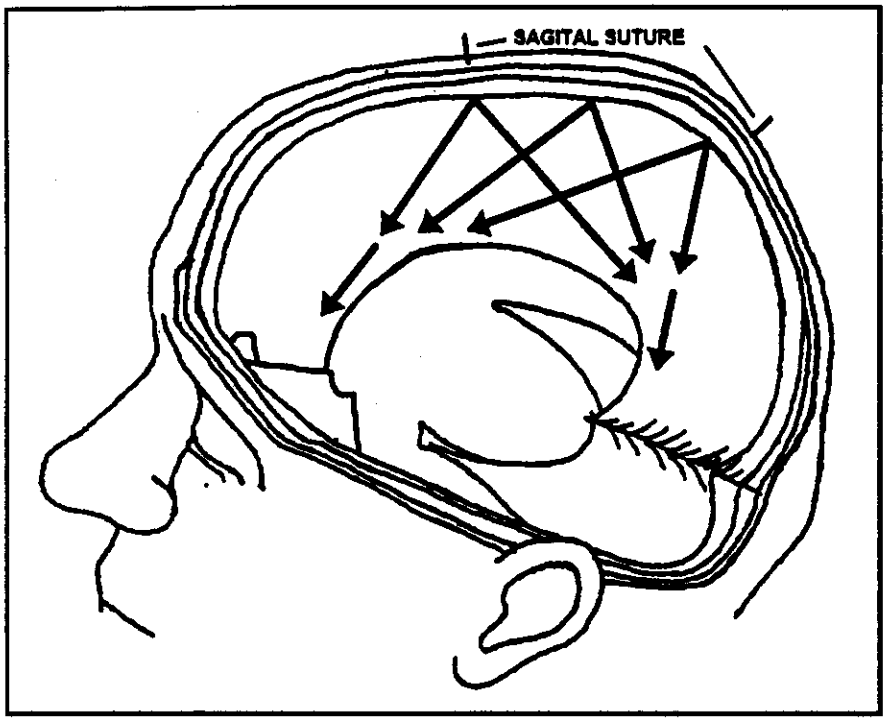
I have observed some of the phenomena discussed in this paper for the last four years; others (percussion of external occipital protuberance) for less than a month. I decided to include the recent, less tested observations because they have such strong potential to demonstrate the connection between longitudinal meningeal tension, patterns of muscle strength, and the body's reaction to movement.

Longitudinal Meningeal Tension

The dura mater, the outer layer of the meninges which surrounds the brain and spinal cord, is tough and relatively inelastic. It bends, but it doesn't stretch. It attaches to the inside of the skull and to selected points in the spinal canal, and because of its inelastic nature, it transmits pulls from one point of attachment to another.

Longitudinal tension refers to the physical pull which the dura mater exerts between its points of attachment along the midsagittal line of the body: from the coccyx to beneath the sagittal suture at the top of the head, and from the anterior inferior pole of the falx cerebri at the ethmoid bone (above and behind the nose) to the top of the head. Longitudinal tension is transmitted through the spinal canal by the spinal meninges, and in the skull by vertical sheets of the dura mater called the falx cerebelli and falx cerebri, which separate the right and left hemispheres of the cerebellum and cerebral cortex, respectively.

Figure 1
Vectors of Meningeal Pull into Sagittal Suture



The body monitors meningeal tension with mechanoreceptors near the points of dural attachment in the spine and cranium. Mechanoreceptors in the sagittal suture offer particularly rich feedback about longitudinal meningeal tension, which is transmitted into the sagittal suture through the falx cerebri. The falx cerebri pulls its attachments beneath the sagittal suture both anteriorly and posteriorly *(figure 1)* Imbalanced tension in the falx cerebri creates areas of altered longitudinal tension in the sagittal suture which is signaled into the central nervous system with widespread neurological consequences.

Patterns of Meningeal Tension

Vectors of pull within the meninges shift as cerebrospinal fluid pressure increases and decreases with the cycles of craniosacral flexion and extension. Vectors of pull shift in a different pattern as the spine and atlanto-occipital joint move in flexion and extension.

Each motion in the meningeal system influences longitudinal tension in the sagittal suture. The sagittal suture, which runs from front to back at the top of the head, has deep dentate interdigitations, which allow separation and hinge motion between the two parietal bones as they move with the rest of the craniosacral system through cycles of flexion and extension (Walther 1983). The sagittal suture is also apparently pulled anteriorly with craniosacral flexion *(figures 2 and 3)* and posteriorly with craniosacral extension, and gets longer from front to back with atlanto-occipital extension, and shorter front to back with atlanto-occipital flexion. Restrictions in any of these movements causes noxious signaling from mechanoreceptor into the central nervous system.

This paper discusses four patterns of meningeal tension which affect the sagittal suture, each with different neurological consequences.

Longitudinal Tension Challenges

Longitudinal meningeal tension can be challenged with percussion of the external occipital protuberance (EOP), with inferior or superior tugs on the coccyx or the nasal septum, and with anterior or posterior vectors of pressure on the sagittal suture, or one of the two fontanels at the end of the suture.

Percussion of the External Occipital Protuberance

Percussion of the external occipital protuberance (EOP) amplifies the body's awareness of meningeal tension. The EOP is located on the outside of the skull immediately adjacent to the junction on the inside of the skull of the falx cerebri, falx cerebelli, and tentorium cerebelli (*figure 5*). Percussion at this point sends waves of quickly alternating tension through the meningeal system, causing massive stimulation of mechanoreceptors which monitor that tension. As the waves of alternating pressure sweep through the meningeal system they also release areas of minor tension and restricted movement.

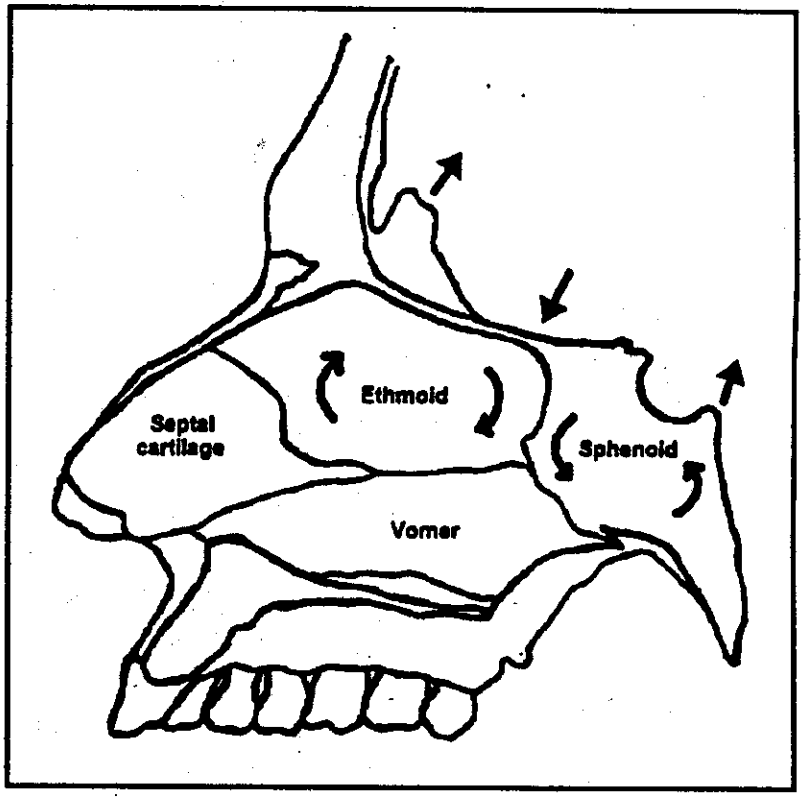
Challenge of the Coccyx and Nasal Septum

Alternating vectors of pull in the spinal meninges cause the sacrum and coccyx to rotate front to back with the craniosacral cycles of flexion and extension. During flexion increased tension in the anterior dural tube causes a rotational movement of the sacrum so that the apex moves anteriorly. During extension increased tension in the posterior dural tube causes a rotational movement of the sacrum so that the apex moves posteriorly. (Upledger 1983) The coccyx appears to move with an anterior/posterior rotation opposite that of the sacrum, presumably because the filum terminale, the last extension of the spinal meninges, attaches to the coccyx posteriorly to its general axis of rotation (Walther 1983). The coccyx is also apparently pulled headward with flexion and relaxes inferiorly during extension.[1,2]

The ethmoid bone rotates front to back about a transverse axis of rotation in cycles of flexion and extension. During craniosacral flexion the crista galli moves superiorly and posteriorly, and the cribriform plate moves anteriorly and inferiorly (Magoun 1976) (*figure 2*) creating an anterior pull through the falx cerebri into the sagittal suture (*figure 3*).

Anterior, inferior force to the inferior, posterior portion of the nasal septum moves the ethmoid bone into flexion creating an anterior pull into the sagittal suture. (*figure 4*) For superior or inferior challenges, have the patient apply pressure to the inferior, posterior portion of the septum immediately next to the upper lip, grasping the nasal septum between the thumb and forefinger for inferior tugs.[3]

Figure 2
Flexion of Anterior Cranial Base



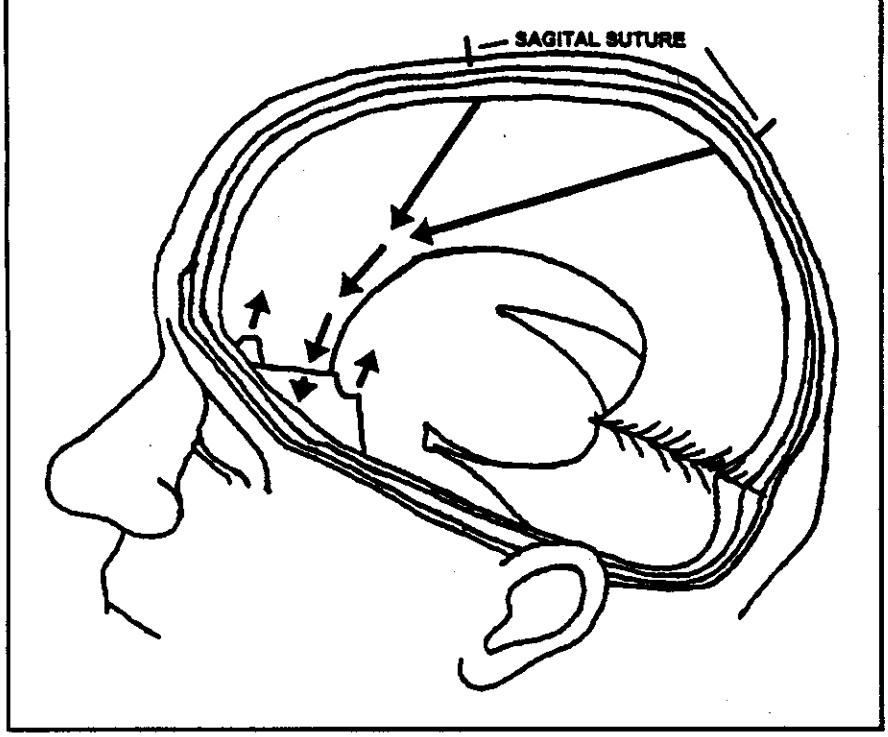


Figure 3
Flexion of Anterior Cranial Base with Anterior Pull On Sagittal Suture

Structural Coupling

Structural coupling is a term used in systems theory to describe characteristics of living systems (Capra 1996, 1983; Mantura and Varela 1987). Living systems undergo constant physical changes as they perceive the world, learn, adapt to stress, and evolve. These physical changes, which occur as part of the interaction between the organism and its environment, are called structural coupling. They range from short-term changes of neuron plasticity to long-term, evolutionary changes of body and brain structure. How the organism relates to the world is influenced by its structure, which changes with each new experience. These structural, developmental changes take place continually and account for many of the phenomena we observe with applied kinesiology.

Strength Patterns, Movement Patterns, and Meningeal Tension

Longitudinal meningeal tension is best monitored by manual muscle testing with gamma two maximum, gamma two submaximum, and uilateral/bilateral muscle testing (UBMT) See Walter Schmitt's article "A Neurological Model for the Three Types of Manual Muscle Testing" and the accompanying paper "Unilateral Versus Bilateral Muscle Testing" for a description of the testing procedures. The phenomena of longitudinal meningeal tension, patterns of neuromuscular facilitation and inhibition, and response to body movement patterns, appear to be structurally coupled. When one is present, the others are present as well, possibly coordinated by the neural pattern generators discussed by Schmitt in "Where is the Triad of Health?" (1996). Anything which changes anterior-posterior tension in the vertical folds of the dura mater also changes patterns of muscle strength and body movement, and anything which changes patterns of muscle strength and body movement changes meningeal tension.

This paper discusses four patterns of abnormal longitudinal meningeal tension. Procedures to demonstrate these four meningeal tension patterns are discussed below, as well as the associated muscle test and body movement

prior to treatment.

1. **Reduced Anterior Mobility Of The Sagittal Suture**
   Resistance to anterior movement of the sagittal suture causes a propensity for weak outcomes with gamma two submaximum muscle tests. To challenge anterior mobility of the sagittal suture, hold lambda and/or bregma anteriorly, have the patient take a deep breath in, and/or hold the nasal septum inferiorly. (All challenges referred to in this paper are direct challenges; pressure that is held for the duration of the challenge) In the presence of reduced anterior mobility of the sagittal suture this procedure evokes weak outcomes throughout the body in response to gamma two submaximum muscle tests.[4]

   Tapping EOP amplifies mechanoreceptor feedback about meningeal tension. If the EOP is tapped five or six times while the challenge is held, weak responses to gamma two submaximum testing are present even after the challenge is released.

   Four or five homolateral crawling movements cause a return to strength of the previously weak muscles.

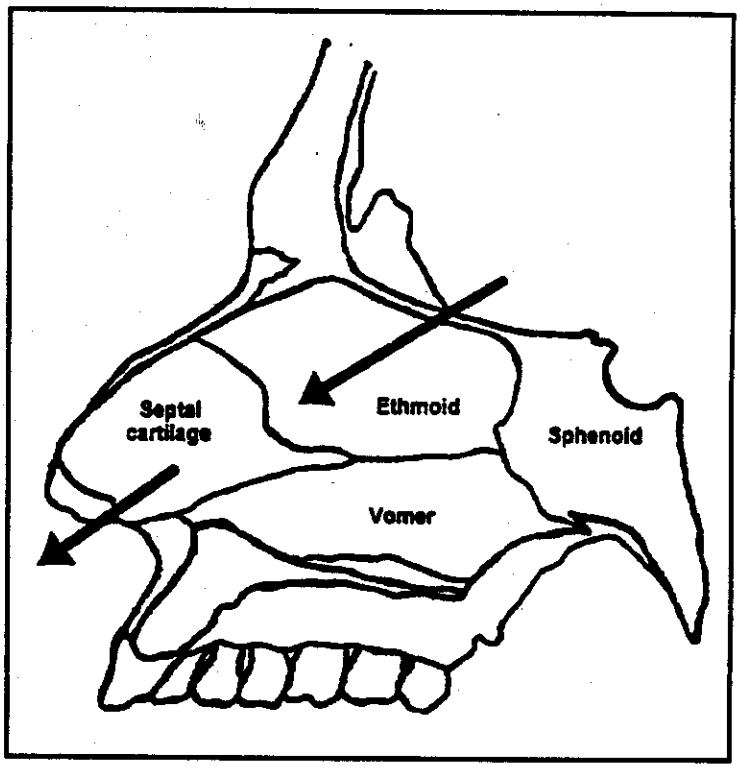
2. **Reduced Posterior Mobility Of The Sagittal Suture**
   Resistance to posterior movement of the sagittal suture causes a propensity for weak outcomes with gamma two maximum muscle tests. To challenge posterior mobility of the sagittal suture, hold lambda and/or bregma posteriorly, have the patient hold his/her breath out, and/or hold the coccyx inferiorly. In the presence of reduced posterior mobility of the sagittal suture this procedure evokes weak outcomes throughout the body in response to gamma two maximum muscle tests.

   Tapping EOP amplifies mechanoreceptor feedback about meningeal tension. If the EOP is tapped five or six times while the challenge is held, weak responses to gamma two maximum testing are present even after the challenge is released.

   Four or five cross crawling movements cause a return to strength of the previously weak muscles.

3. **Resistance to Shortening of the Sagittal Suture**
   The sagittal suture should be able to compress and stretch lengthwise in a motion like an accordion. Reduced motion in either direction has neurological consequences. Resistance to longitudinal

Figure 4
Inferior Nasal Septum Tug Pulls Sagittal Suture Anteriorly



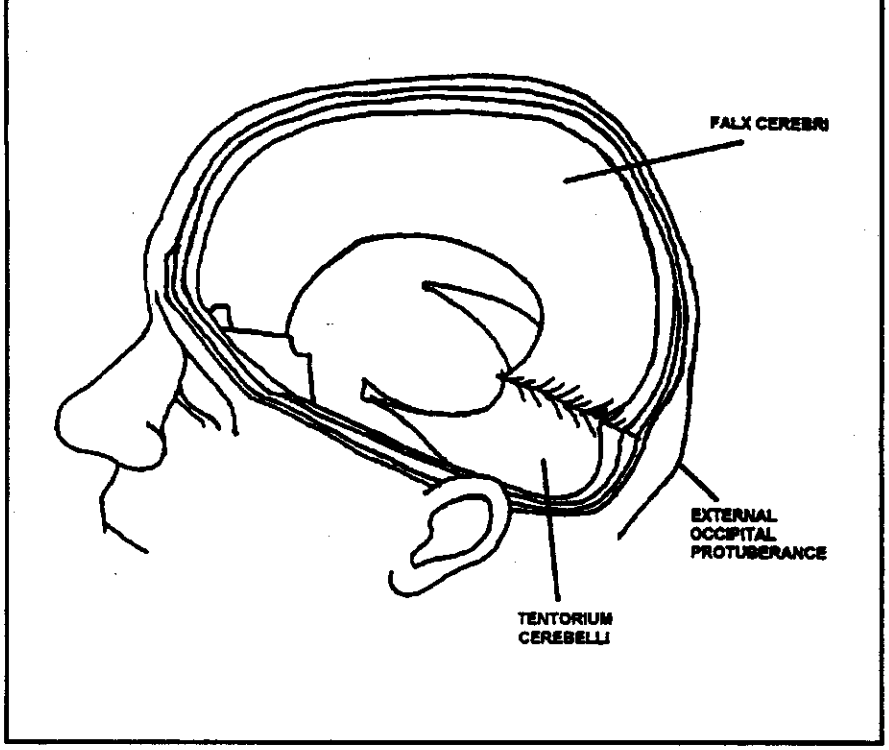


Figure 5
External Occipital Protuberance Near Junction of Falx Cerebri, Tentorium Cerebelli, and Falx Cerebelli (not shown)

causes a propensity for positive unilateral/bilateral muscle tests (bilateral weak) A right left pair of mucles is strong when tested individually, but weak when tested simultaneously. To challenge compression mobility of the sagittal suture hold lambda and bregma toward each other. In the presence of reduced compression mobility of the sagittal suture, this procedure causes positive UBMT (bilateral weak) findings.

Tapping EOP amplifies mechanoreceptor feedback about meningeal tension. If the EOP is tapped five or six times while the challenge is held, positive UBMT (bilateral weak) findings are present even after the challenge is released.

Four or five flexion/extension movements of the neck and trunk usually normalize the UBMT findings.

4. **Resistance to Lengthening of the Sagittal Suture**
Resistance to longitudinal stretching of the sagittal suture causes a propensity for positive UBMT (individual weak). To challenge the ability of the sagittal suture to lengthen, hold lambda and bregma in opposite directions to stretch the suture. In the presence of reduced ability to lengthen, this procedure causes positive UBMT (individual weak) findings.

   Tapping EOP amplifies mechanoreceptor feedback about meningeal tension. If the EOP is tapped five or six times while the challenge is held, positive UBMT (individual weak) findings are present even after the challenge is released.

   Four or five flexion/extension movements of the neck and trunk usually normalize the UMBT findings.

Procedure to Balance Longitudinal Meningeal Tension

There are many ways to balance longitudinal meningeal tension. Here are some of the procedures I use:

1. Start by tapping the EOP with the head and neck in a neutral position; either sitting or standing. Tapping EOP releases minor restrictions in longitudinal meningeal mobility, and amplifies the body's awareness of the remaining meningeal tension. Tap thirty to forty times until one of the patterns of muscle strength discussed above is present throughout the body after the tapping is stopped.

Touching several areas of the body changes the muscle strength pattern. (The type of muscle test that previously yielded weak outcomes now yields strong outcomes, and the types of muscle tests that previously yielded strong outcomes now yield weak outcomes.)

Touching the following areas frequently causes a change of muscle strength after percussion at EOP.

1. One point on the sagittal suture.
2. One of the acupuncture alarm points.
3. Areas of the body, or reflex points which need treatment.

Meningeal tension is usually triggered by mental, chemical, or physical factors distant from the sagittal suture. Treatment of the triggering factors (which are readily identified with applied kinesiology procedures) eliminates meningeal tension and the corresponding muscle strength pattern.

A short cut method to balance meningeal tension is to hold the sagittal suture in each direction of reduced mobility and tap the EOP fifteen to twenty times or until the challenge is no longer positive. This shortcut procedure balances meningeal tension, and improves neurological organization as discussed below, but it doesn't address the triggering factors that helped create the reduced meningeal mobility.

Results Of Balancing Longitudinal Meningeal Tension

Balancing longitudinal meningeal tension, however it is accomplished, has the following effects:

1. Autogenic facilitation and inhibition patterns are normalized. See Richard Belli's article, "Deep Tendon Reflex" and Walter Schmitt's article, "Clinical Applications Based On A Neurological Model," for a more complete description of autogenic facilitation and inhibition.

2. Movement patterns of cross crawl, homolateral crawl, and flexion/extension do not cause a change of outcome with any type of muscle test. See Bob Blaich's article, "Applied Kinesiology and Human Performance" and Wally Schmitt's article, "Clinical Applications Based On A Neurological Model" for more complete discussion of the implications of muscle test outcomes following these movement patterns.

3. Signals from the tonic labyrinthine reflexes are amplified and normalized. There is a widespread pattern of neuromuscular facilitation and inhibition which relates to changes in the heads position in relation to gravity. It is common to find that all left arm flexors and right arm extensors weaken when the supine patient turns the head to the left, and strengthen again when the head is returned to center. An analogous pattern occurs when the head is turned to the right. For more information about facilitation and inhibition patterns from the tonic labyrinthine reflexes, refer to Walter Schmitt's articles, "Clinical Applications Based On A Neurological Model" and "Using Functional Neurology to Identify Patterns of Facilitation and Inhibition Arising From Tonic Neck Reflexes and Tonic Labyrinthine Reflexes."

4. No muscles are weak "in the clear"[5] in response to gamma two maximum, or gamma two submaximum muscle tests, and there are no positive UBMT findings. (Mental, chemical, or physical challenges, including touching active reflex points on the body might still cause weak outcomes with these types of muscle tests.) Muscles might still be weak "in the clear" in response to gamma one types of muscle tests.

Discussion/Directions for Further Research.

The preceding observations raise a number of questions.

If weak outcomes with gamma two submaximum tests are associated with restricted anterior mobility of the sagittal suture, and weak outcomes with gamma two maximum tests are associated with restricted posterior mobility of the sagittal suture, how does it happen that the same muscle has weak outcomes with both maximum and submaximum tests?

If a muscle is weak with both maximum and submaximum testing, holding the breath in usually strengthens the maximum test, and holding the breath out strengthens the submaximum test. In this situation I find that the sagittal suture has lost its ability to lengthen or shorten appropriately. Restoring that mobility usually restores strength in response to both maximum and submaximum (gamma two) testing.

Apparently each area of the sagittal suture effects a different group of muscles. The anterior section of the sagittal suture seems to relate to muscles in the lower part of the body, and the posterior section of the sagittal suture seems to relate to muscles in the upper part of the body. Tractioning the posterior portion of the sagittal suture while tapping the EOP often causes an upper body, but not lower body, pattern of positive UBMT (individual weak), and tractioning the anterior portion of the suture while tapping causes a lower body, but not upper body pattern of findings. Is the functioning of each muscle structurally coupled with a very particular part of the sagittal suture?

Is feedback about meningeal tension coming from mechanoreceptors in the sutures, or from elsewhere in the meningeal system? How important is normal feedback from mechanoreceptors in the sagittal suture for optimal functioning of the brain? (Does anesthetizing the mechanoreceptors in the sagittal suture have impact on neurological function?)

I would like your feedback, thoughts, and questions.

Notes

1. Inspiration and superior challenge of the coccyx consistently cause the same muscle test outcome when evaluated with gamma two submaximum muscle testing, supporting the idea that the coccyx usually moves superiorly as part of craniosacral flexion. See the section V, "Strength Patterns, Movement Patterns, and Meningeal Tension."
2. Challenges which create craniosacral flexion are best evaluated with gamma two submaximum testing, and challenges which create craniosacral extension are best evaluated with gamma two maximum testing. See the section V, "Strength Patterns, Movement Patterns, and Meningeal Tension."
3. Because of its position anterior to the ethmoid's axis of rotation *(figure 2)*, inferior pressure on the nasion moves the ethmoid into extension and often causes opposite muscle test outcomes to inferior tugs on the nasal septum.
4. Challenges to the sagittal suture evidence a higher percentage of positive findings than body position challenges (including respiratory challenges) or challenges to the nasal septum or coccyx.
5. "In the clear" refers to a muscle test condition in which the body's awareness is not drawn to a mental, chemical or physical challenge of any type, including touching potentially active reflex points on the body.

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Unitateral vs. Bilateral Muscle Testing

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Abstract

Unilateral/bilateral muscle testing (UBMT) evaluates test outcomes for a pair of right/left muscles tested both individually and simultaneously. Positive findings occur when the outcomes are different for individual and bilateral tests. Positive UBMTs are associated with compromised communication between the right and left hemispheres of the brain, and with a disruption of autogenic facilitation and inhibition.

Procedure

Muscles tests for gait analysis and cloacal synchronization are examples of procedures in which a pair of muscles is tested both individually and simultaneously. Findings are positive when one or both muscles are weak when tested simultaneously, but are strong when tested individually (Walther 1988). Unilateral/bilateral muscle testing (UBMT) evaluates a mirrored right/left pair of muscles such as the right and left pectoral sternal muscles, right and left gluteus medius, or right and left neck flexors. Muscles are tested one at a time, and then simultaneously. Sometimes muscles are weak when tested individually, but strong when tested simultaneously, This is a positive "UBMT (weak individual)" finding, and usually occurs in conditions of decreased longitudinal meningeal tension. In other situations, muscles are strong when tested individually, but weak when tested simultaneously, This is a positive "UBMT (weak bilateral)" finding, and usually occurs in conditions of increased longitudinal meningeal tension. (Refer to the accompanying paper "Longitudinal Meningeal Tension" for a more in depth discussion.)

Associated Neurological Findings

Positive UBMT findings apparently occur in conditions of compromised communication between the right and left hemispheres of the brain. Individual muscles of a positive UBMT pair are affected by right and left brain activity. In conditions of positive UBMT (weak bilateral), activating the right hemisphere of the brain (for instance by having the patient hum a tune) causes individual muscles on the right side of the body to become weak, and activating the left hemisphere (for instance by having the patient do a mathematical problem) causes individual muscles on the left side of the body to become weak.

Muscles that are part of a positive UBMT pair frequently exhibit abnormal patterns of autogenic facilitation or inhibition. Refer to Schmitt and Belli for more discussion of autogenic facilitation and inhibition. When the UBMT is normalized, autogenic facilitation and inhibition is normalized as well.

Factors Which Elicit Positive UBMTs

Touching, tapping, or pinching a reflex point such as an acupuncture point or neurolymphatic reflex might cause positive UBMT findings in muscles throughout the body. The reflex points which elicit positive UBMTs are those which cause weak muscles to become strong, but do not cause strong muscles to become weak. If for example, liver detoxification pathways are impaired, touching the liver neurolymphatic reflex strengthens muscles that are weak, but does not weaken individual muscles that are strong. It does however weaken a strong right/left pair of muscles if they are tested simultaneously.

Contact with a substance to which the patient is sensitive frequently elicits positive UBMT findings, either individual weak or bilateral weak. This parallels Michael Lebowitz's findings. He reports that when screening for food sensitivities, either a weakening or a strengthening outcome is indicative of sensitivity. Approximately half of the time, contact with an offending substance causes weak muscles become strong, but does not cause strong muscles to become weak. (Lebowitz 1992) I find that in both of these situations UBMT findings are positive. When weak muscles become strong, there are also positive UBMT (weak bilateral) findings, and when strong muscles weaken there are positive UBMT (weak individual) findings.

Eye Phase and UBMT Outcome

Positive UBMT tests frequently occur in only one eye phase, with the eyes either open or closed, but not both.[1] Muscles that change strength when the eyes are open or closed (especially with gamma two testing, maximum or submaximum) are frequently part of a positive UBMT pair. With the eyes in the phase that causes individual muscles to test strong, muscles tested simultaneously as right/left pairs are weak.

UBMT and Longitudinal Meningeal Tension

Positive UBMTs are associated with altered longitudinal tension in the sagital suture, which is discussed in the accompanying paper, "Longitudinal Meningeal Tension." Atlanto-occipital flexion often elicits positive UBMT (bilateral weak) findings and atlanto-occipital extension eliminates them.

Clinical Applications

Positive UBMT findings are apparently associated with compromised communication between the right and left hemispheres of the brain, and are important to deal with early in the treatment protocol. Refer to the accompanying paper, "Longitudinal Meningeal Tension" for possible treatment protocols.

Directions For Further Research

What is the neurological basis of the simultaneous bilateral muscle test?

Notes

The finding of different test outcomes for UBMT with the eyes open and closed is usually associated with an anterior or posterior shift of meningeal tension as described in the accompanying paper, "Longitudinal Meningeal Tension."

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Durned if You Don't - Durned if You Do: **Why a Muscle Strengthening Response is Not Enough**

Walter H. Schmitt, Jr., D.C., DIBAK, D.A.B.C.N.

Abstract

Therapeutic measures in applied kinesiology (A.K.) result in a muscle strengthening which seems like a favorable outcome. Oftentimes, however, the strengthening of one muscle is accompanied by a weakening reaction somewhere else in the body. Examples of this pattern are discussed in relation to structural, chemical, and mental patterns. Structural patterns are associated with improper adjusting procedures. Chemical patterns are discussed in relation to sugar, glandular and hormonal therapies, neurotransmitter production, and homeopathic therapies associated with heavy metal toxicity and allergens. The mental pattern discussed is psychological reversal.

Introduction

A.K. is a system of monitoring the response of manual muscle testing outcomes to sensory receptor based diagnostic challenges. When a muscle which tests as weak becomes strong on some sensory challenge stimulus, it is generally agreed amongst A.K. doctors that it is a desirable outcome and that a sensory receptor based therapeutic measure should be based on that sensory receptor challenge.

Many times however, a muscle strengthening response in one area of the body is accompanied by a muscle weakening reaction elsewhere in the body. In other words, what helps one body function is detrimental to another. This creates a dilemma for the doctor who wants to provide a therapy to improve one body function but who also wants to avoid creating an iatrogenic problem from the therapy. When in this position, you are "durned if you don't and durned if you do" (DIYD-DIYD).

A tenet of A.K. practice is that muscle testing alone should not be used to determine nutrient supplementation. History, exam findings, and lab findings should all be correlated with a muscle strengthening response prior to supplementation. In spite of good clinical indications for nutrient supplementation, a DIYD-DIYD phenomenon in nutrient testing has been observed by a number of A.K. doctors. John Bandy[1] and others who have used leg length as a confirmatory test for nutrient evaluation have observed that many times a muscle test will strengthen with a nutritional stimulus, but the same nutrient

will result in an increased differential of leg length measurement. They have not relied solely on clinical indications and a muscle strengthening response but also required a normalization of leg length before considering supplementation of a nutrient.

The factor which simultaneously creates both strengthening and weakening may be an oral nutrient challenge or some other sensory receptor based challenge procedure. Sam Yanuck addressed this problem in his paper, "A Review of Key Principles of Functional Assessment and Treatment" in 1996.[2] Fortunately, we have learned how to handle these DIYD-DIYD situations for structural, chemical, and mental problems which we encounter daily. The most important thing is that we are aware that one muscle strengthening response alone is an inadequate basis for any therapeutic measure.

Discussion

When a DIYD-DIYD pattern is found, the weakening part of the reaction is usually accompanied by all three types of muscle weakness, G-1, G-2, and G-2 submax.[3] The presence of all three types of weakness is an indication to make a correction with injury recall technique (IRT).[4] The IRT correction is performed with simultaneous TL to the area where weakness was found and the sensory receptor challenge (substance or procedure) which created the DIYD-DIYD response.

In the presence of a DIYD-DIYD pattern, this IRT correction usually results in a dual beneficial response pattern. First, after IRT, the challenge substance no longer creates a weakening response, and second, nor does it create a strengtening response. In other words, the DIYD-DIYD substance or procedure becomes neutral. The patient, no longer caught in the middle, usually notices significant improvement in symptoms, often immediately.

The best way to understand the DIYD-DIYD is by citing examples. Several common examples follow for structural, chemical, and mental patterns which are seen clinically.

Strutural DIYD-DIYD - Spinal Adjustments with Uncoupled Mechanics

In the seminars on "Spinal Adjusting" taught by this author, principles of adjusting in accordance with coupled spinal mechanics are taught. It is noted that adjustments should not be made when the vertebral challenge is positive in a spinal position which represents uncoupled spinal mechanics. This problem fits the DIYD-DIYD criteria. That is, a vertebral challenge indicates a certain correction in a certain spinal position, but to do so would violate the principle of normal spinal coupling.

spinal mechanics, this subluxation should be corrected with the neck in lateral flexion to the right (head tilted to the right.) Yet the vertebral challenge is positive only with the neck in left lateral flexion. To make such a correction would be to violate the principles of coupled spinal mechanics.

Although making an uncoupled adjustment under these circumstances will usually negate the vertebral challenge, it will result in the problem not being truly corrected, but rather moved to some other area in the body. Frequently, the same segment will later (sometimes in the course of the same treatment) demonstrate a need to be adjusted, but in a totally different direction than previously. Or in the case of the upper three cervicals, uncoupled corrections often result in the iatrogenic production of a cranial fault, usually a frontal bone or sphenoid fault. This is probably due to improper stress being thrust into the dura and the force of the adjustment being transmitted through this inelastic tissue to create another problem elsewhere. In this case, we have not fixed the patient's problem, but merely moved it around.

A vertebral challenge which indicates a need for an adjustment will cause an indicator to show a G-1 type weakness only. When a vertebral challenge results in a G-2 or G-2 submax weakness in addition to the G-1 weakness, that segment should not be adjusted. The G-2 and/or G-2 submax weakness suggests that the subluxation is secondary to some other systemic problem.

A similar problem to uncoupled spinal adjusting is created when an adjustment follows a vertebral challenge which creates G-2 or G-2 submax weakness. Making the correction will certainly result in mechanical stress elsewhere in the body, whether it be another subluxation, a cranial fault, or some other mechanical lesion. The correction might even result in pain reduction. But if the time is taken to evaluate the entire patient prior to making the structural corrections, you will observe that uncoupled corrections or those based on G-2 and/or G-2 submax weaknesses create DIYD-DIYD patterns and are not in the patient's best interests in the long run.

Chemical DIYD-DIYD - Sugar

Patients with blood sugar handling problems are often expected to show muscle weakening responses on gustatory stimulation with refined sugar. However, weak muscles of patients in the throes of a low blood sugar reaction will strengthen on the ingestion of refined sugar. This is why these patients crave sweets. At the same time, sugar ingestion leads them deeper into their sugar handling problem. Hence a DIYD-DIYD can exist. If sugar strengthens a weak muscle, always check the DIYD-DIYD pattern of it weakening somewhere else, typically the adrenal, pancreas, or liver circuits. Treat these using IRT with the sugar in the mouth.

Glandular preparations are an important nutritional tool for A.K. doctors. Often an organ may be over functioning and being depleted at the same time. The adrenal glands are the most common example of this.

The adrenal gland cortices are stimulated by the hypothalamic - pituitary - adrenal (HPA) axis. In chronic stress the HPA stimulation drives the adrenal cortex to over function and increased cortisol output while simultaneously depleting the adrenal tissues and their nutritional reserves. In this very common scenario, the nearly exhausted adrenal glands themselves will respond to any nutritional support sent their way. At the same time, however, any chemical support to the adrenals will only result in them being able to produce even more cortisol due to the constant HPA drive.

Clinically, this is seen as a DIYD-DIYD pattern in that an adrenal gland related muscle (sartorius, gracilis, posterior tibialis, etc.) will strengthen on insalivation of adrenal glandular tissue. But careful investigation will often reveal that the same oral challenge will result in a weakening reaction of one or more organs which are being stressed by the excess cortisol production. Typical weakening reactions to insalivation of adrenal glandular tissue are found on TL to the immune system circuits (thymus and spleen), thyroid, or reproductive circuits, but any cortisol sensitive tissue may be involved. These weakening reactions will be demonstrated as G-1, G-2, and G-2 submax type weaknesses of indicator muscles. IRT to the involved areas with the adrenal glandular in the mouth will result in a resetting towards normal function of the tissues which were being adversely affected by the glandular.

The excess cortisol patient will often feel better temporarily when supplemented with the adrenal glandular tissue. This patient's adrenal related muscles will repeatedly demonstrate strengthening responses to adrenal glandular tissue and it will look like they will need it forever. Observing patients over a long period of time, or measurement of salivary cortisol levels will lead the doctor to another conclusion, however. In time these patients have a breakdown in some other tissue which is non-responsive to treatment. Severe immune system disorders or adult onset diabetes (cortisol leads to insulin insensitivity) are good examples of problems associated with excess cortisol. It is very possible that some of these problems are iatrogenic due to prolonged adrenal glandular tissue supplementation without regard for the progression of the patient further along the path of the general adaptation syndrome (GAS) of stress toward exhaustion.

When the adrenal glands are truly depleted, and the body is nearing or in the exhaustion stage of the GAS, then oral stimulation with adrenal glandular tissue will usually result in strengthening reactions without accompanying DIYD-DIYD weakening reactions. However, as the patient improves, the adrenal glandular tissue may have to be replaced by other nutritional substances which do not allow the adrenal glands to return to over function to the point of exhaustion.

terone (DHEA), you will gain an understanding of commonly encountered hormonal DIYD-DIYD patterns.

Chemical DIYD-DIYD - Neurotransmitters

Patients are often caught in a DIYD-DIYD situation in relationship to nutrients, foods, or drugs which they are taking. Many nutrients contribute to neurotransmitter (NT) production. For example, tyrosine (TYR) is an amino acid which is the precursor to the adrenergic catecholamines, norepinephrine (NE), epinephrine (Epin), and dopamine (DA). It is also the precursor for thyroid hormone.

TYR is commonly given as a supplement to low thyroid patients. As a precursor to catecholamines, TYR may promote also excess NE, Epin, or DA production which can lead to problems. Even though it might improve thyroid function, a characteristic problem which might arise from TYR supplementation is excess stimulation to adrenal glands or suppression of the immune system by NE, Epin, or DA. In this case, TYR will strengthen, for example, a weak teres minor, but cause a weakness on TL to the reflexes for the adrenals and/or the immune system. If the patient requires TYR for the thyroid, its harmful effects to the other organs may be diminished by treating their reflexes with IRT while the patient tastes the TYR.

Another example of DIYD-DIYD with NTs is when a patient is taking a medication which affects NT activity which is necessary for control of one set of symptoms, but causes problems in another tissue. Tranquilizers and anti-depressants are commonly encountered medications which may help mental symptoms, but create stress to the liver, immune system, or any other tissue in the body. If the medication is necessary, its adverse effects may be diminished by treating stressed organs' reflexes or spinal areas with IRT with the medication in the mouth.

Chemical DIYD-DIYD - Homeopathic Heavy Metals and Allergens

For over ten years we have used 12x homeopathic heavy metals and 12x homeopathic allergens for both screening and treatment of heavy metal problems and allergies, respectively. It is found that gustatory stimulation with 12x homeopathic substances will strengthen a weak muscle when there is a problem with the substance. However, the same 12x substance will cause a positive TL to the very organs which are being stressed by the substance. This DIYD-DIYD pattern is useful in both diagnosis and treatment procedures.

be treated by IRT with Al 12x are in the mouth. This will have a beneficial affect on the patient and presumably aids in the detoxification process.

A similar pattern is seen with 12x allergens. They will strengthen a weak muscle but simultaneously cause a positive TL to those organs' reflexes which are being affected by the allergen. For example, gluten 12x might strengthen a weak deltoid, but will also cause a positive TL to neurolymphatic reflexes (NLs) for the stomach, small intestine, large intestine, and L-5. Treating the positive NLs and L-5 with IRT while the gluten 12x is in the mouth will eliminate the reaction to the gluten 12x, and at least temporarily desensitize the patient to gluten.

Merely giving the 12x homeopathic creates the DIYD-DIYD pattern. The 12x homeopathic by itself may eventually help the patient. But it seems more appropriate to identify the DIYD-DIYD pattern and treat accordingly.

Chemical and Structural DIYD-DIYD - GV-21

In an accompanying paper in this Proceedings entitled "GV-21 - a Screening Point for Centering the Spine"[3] a positive TL to GV-21 is associated with eight patterns, each with a specific structural and NT significance. That paper discusses the use of TL to GV-21 as a screening test to identify a strengthening or a weakening response. The strengthening or weakening response will also be created by one of eight body position or visual challenges. The effect of each of these challenges will be paralleled by a specific NT.

Often, the positional (or visual) challenge and NT challenge will fall into the DIYD-DIYD pattern. For example, right gait pattern is associated with NE activity. If a weak muscle strengthens on GV-21 TL, and on right gait pattern, and on gustatory stimulation with NE, one might think that the patient requires more NE activity. But continued challenging with NE often reveals a weakening effect elsewhere, that is, a DIYD-DIYD pattern.

For example, an open ICV may strengthen on TL to GV-21, right gait, and NE. But NE will also cause a positive TL to the adrenal NLs, the thymus, and spleen. In this case the DIYD-DIYD pattern can usually be eliminated by treating the positive areas (adrenal, thymus, and spleen) with IRT with NE in the mouth. Following correction, no strengthening or weakening will take place with GV-21 TL, right gait, nor NE. Usually the ICV is now functioning properly also.

The best example of DIYD-DIYD in mental related factors is the problem of psychological reversal (PR), first identified by Roger Callahan.[6] In this pattern, people tend to make wrong choices, consistently making decisions which are detrimental to their physical or mental well-being. A PRed woman with a blood sugar handling problem will continue eating refined carbohydrates even though she knows it is harmful. A PRed man with relationship problems consistently dates women whose personality traits lead to turbulent interactions, and so on. This can be seen as a DIYD-DIYD pattern because the patient feels the need to make a decision, but the decision itself creates more problems.

Callahan identified the small intestine acupuncture meridian as the culprit in PR. He recommends treating SI-3 in PR patients.

We have found that PR patients will show a weak muscle strengthening with TL to the small intestine NL reflexes, that is, the NLs for the quadriceps and/or the abdominals. These NLs will not TL to create weakness, however, unless an appropriate challenge substance is added. Ingestion of the challenge substance tends to perpetuate the PR pattern. Not only is it important to identify and eliminate the offending substance from the diet, it is important to reset the small intestine NLs (using IRT) with the offender in the mouth. Often the offender is a substance which the patient craves and eats frequently.

Common offenders to the small intestine NLs in PR patient are partially hydrogenated fat, allergens, caffeine, and sugar. Partially hydrogenated fat is a huge problem in recurrent PR due to its contribution to chronic inflammation of the small intestine wall. Any substance which can be ingested by the body, including tobacco smoke, alcohol, or drugs can result in a small intestine NL problems and PR. These substances usually create a muscle strengthening reaction somewhere in the body but a weakening response on TL to the small intestine NLs, a typical DIYD-DIYD reaction.

Treating the small intestine NLs by IRT with stimulation from the offending substance resets the PR and neutralizes the mental DIYD-DIYD pattern. The bioflavonoid, quercitin, has an anti-inflammatory effect in the small intestine and is often helpful in treating these patients. Recurrence of PR in patients who have no small intestine NL involvement suggests consultation with a mental health care professional.

DIYD-DIYD patterns are encountered daily but are usually not observed unless they are specifically looked for. One of the great dangers of A.K. is to rely too heavily on the strengthening response of a muscle test as an absolute guide to therapy. Although strengthening of a weak muscle is the cornerstone of A.K. assessment, it must be combined with all other diagnostic and assessment procedures to arrive at the proper treatment procedure for each patient.

We must add to our diagnosis and assessment procedures the awareness that some procedures are double edged swords - creating just as much potential for harm as they do for good. Knowledge of DIYD-DIYD patterns will guide you to more appropriate therapies for your patients, and allow you to diminish negative effects of substances and procedures which are necessary on one hand but detrimental on the other. It is with this type of knowledge and clinical insight that we will advance A.K. to the forefront of the healing arts which is where it deserves to be.

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GV-21 - A Screening Point for Centering the Spine

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Abstract

Acupuncture point GV-21, located at the bregma, is the location for a point which will therapy localize (TL) or respond to several taps by the doctor when the patient will also respond to one of eight patterns: the six centering the spine (CTS) patterns, visually focusing on a point, or mentally imaging focusing on a point. The pattern associated with GV-21 is a guide to treatment procedures.

Introduction

In applied kinesiology (A.K.) we have traditionally used the acupuncture meridian system to help us locate various diagnostic and therapeutic locations on the body, even though the point may have significance other than as an acupuncture meridian point. K-27 is the best example of this. The acupuncture meridian point GV-21 is located on top of the skull at the bregma. It is an area which is observed to frequently therapy localize (TL). We have observed TL to or tapping of this location to be associated with a parallel reaction in one of eight patterns: the six CTS[1] patterns or two visual patterns.

The six centering the spine patterns are:

1. right gait
2. left gait
3. spinal extension
4. spinal flexion
5. spinal lateral flexion, convex to the left
6. spinal lateral flexion, convex to the right

The two visual patterns which we have found to correlate with TL or tapping to GV-21 are:

1. focusing the eyes on a point.
2. mentally imaging focusing on a point.

Focusing the eyes on a point is not convergence focusing as on a close up object, but focusing the eyes on a more distant point such as the ceiling, but not necessarily a far distant point.

closed and the patient is asked to imagine aiming at a target like a bull's eye, or trying to hit a tennis ball or a golf ball in the mind's eye.

Discussion

Each of the six CTS patterns may be screened for by having the patient assume the mechanical pattern described. The spinal extension pattern and the spinal flexion pattern may be induced by having the patient roll the eyes superiorly or inferiorly, respectively.

Our procedure in the office when GV-21 TLs or responds to several light taps is to test a muscle as we ask the patient to:

1. "Lift your right leg."
2. "Lift your left leg."
3. "Roll your eyes to the top of your head."
4. "Roll your eyes toward your feet."
5. "Make a 'C' curve out of your body by putting your head and feet to the right."
6. "Make a 'C' curve out of your body by putting your head and feet to the left."
7. "Focus your eyes on the ceiling."
8. "Close your eyes and imagine aiming at a target like a bull's eye."

The clinical relevance of these patterns is that a positive TL to GV-21 will be associated with one of these patterns causing either a strengthening reaction of a weak muscle or a challenge weakness of a strong indicator muscle, depending on the state of the patient's nervous system at the time. When GV-21 is active, it is a guide to evaluate whatever you are treating at the moment in light one of the eight parameters above.

Neurotransmitter Relationships

There are neurotransmitter (NT) relationships with each of the CTS and visual patterns. They are as follows:

1. Right gait - norepinephrine (beta adrenergic - responds to caffeine)
2. Left gait - serotonin or melatonin
3. Spinal extension - gamma-aminobutyric acid (GABA)
4. Spinal flexion - acetylcholine (nicotinic - responds to nicotine)
5. spinal lateral flexion, convex to the left - norepinephrine (alpha-adrenergic - responds to inositol)
6. spinal lateral flexion, convex to the right - acetylcholine
7. Focusing on an object - norepinephrine
8. Imagining focusing on a target - dopamine

the associated NT is often an excellent clue as to the source of the patient's problems. When GV-21 is active, it is a guide to evaluate whatever you are treating at the moment in light the NT relationship as well as the structural pattern.

GV-21 Causing a Strengthening Reaction

If there is a weak muscle which strengthens on GV-21 stimulation, then identify which of the eight factors negate the weakness. Oftentimes, there is a need for a NT related nutritional substance. Strengthening on insalivation of the NT should guide you to check for each of the associated NT precursors and cofactors in the list below and supplementation may be the key to the patient's response.

For example, a depressed patient has a recurrent weak pectoralis major, sternal division (PMS) muscle. TL to GV-21 is positive. Lifting the right leg as in right gait also strengthens the PMS. Based on the chart below, oral nutrient testing of NE, caffeine, the NE precursor, tyrosine, and its cofactors reveals that the patient also strengthens with NE, caffeine, folic acid, and B-6. Obviously, the patient should be supplemented with folic acid and B-6 rather than NE or caffeine. Should the need arise for anti-depressant medication, this pattern would help guide the choice toward one which increased NE activity.

In contrast to this example, a similar depressed patient might demonstrate a PMS strengthening on TL to GV-21, left gait, and one or more of the serotonin associated nutrients. Should this patient need anti-depressant medication, one would be directed to consider serotonin enhancing drugs.

Another example is a patient with anxiety and general nervous tension. In this patient, the weak muscle might strengthen with TL to GV-21, eyes rolled superiorly (or spinal extension), and GABA. Further testing might show strengthening on B-6 and B-3 (niacinamide). Should this patient need medication, one would be directed to consider anti-anxiety (tranquilizer) drugs such as the benzodiazepines which have their effects by increasing GABA activity.

NOREPINEPHRINE (ALPHA-ADRENERGIC - Inositol): above

DOPAMINE: tyrosine, B-6, folic acid, niacinamide, iron, tyrosinase, copper

SEROTONIN: tryptophan, B-6, folic acid, iron, niacinamide

ACETYLCHOLINE (NICOTINIC - Nicotine): choline, pantothenic acid, "G", wheat germ oil

ACETYLCHOLINE (MUSCARINIC): choline, pantothenic acid, "G", wheat germ oil

GAMMA-AMINOBUTYRIC ACID (GABA): B-6, glutamic acid which comes from alpha ketoglutaric acid which comes from the citric acid cycle which requires: B-1, B-2, B-3, pantothenic acid, manganese, lipoic acid, and several others. Also zinc and magnesium which, with B-2, help to activate B-6.

GV-21 Associated with a Weakening Reaction

GV-21 stimulation and CTS patterns may be used to identify a source of excess activity in the body as well as deficient function. When an organ is over functioning, its NL will TL to strengthen a weak muscle, but TL to the NL will not cause a strong muscle to weaken unless the TL is combined with the factor(s) which are stimulating the excess function.

For example, many patients are over stressed and are producing excess sympathetic activity and excess NE. Typical targets for the excess NE activity are the adrenal glands and the immune system. One may use GV-21 to screen for excess activity by having the patient TL the reflex points for organ(s) in question and simultaneously TL GV-21. When both of the patient's hands are TLing organ reflex areas, then tapping GV-21 two or three times is the best approach. This simultaneous TL to GV-21 and a stressed reflex area will result in a weakening reaction when there is an excess of one of the GV-21 associated patterns.

If, in the above example, the adrenal NLs, the thymus area (over the sternum), and the spleen NL are all being adversely affected by excess beta-adrenergic activity, TL to each of the areas would likely be positive to strengthen a weak muscle. But TL to each area would usually be negative in the clear. However, TL to each area simultaneously with stimulating GV-21 would create a weak indicator muscle.

Further testing would involve asking the patient to maintain the organ reflex TLs (removing the GV-21 TL) and then perform each of the eight steps above until one caused the indicator muscle to weaken. In this case,

weakness, G-1, G-2, and G-2 submax.[2]

When challenge to a body area (reflex or spinal area) causes all three types of weakness, the best therapeutic approach is injury recall technique (IRT)[3] to the area while the challenge is maintained. In this case, we would put NE or caffeine in the mouth, identify that the adrenal, thymus, and spleen areas all TL to weaken a strong indicator muscle, and then correct each with IRT while the caffeine is still in the mouth.

A patient who consumes excess caffeine will usually show TL to GV-21 and this same right gait - NE - caffeine pattern. This patient should be treated with IRT with oral caffeine to all active reflex and spinal areas which show positive challenge with caffeine stimulation. The patient should also be restricted in caffeine consumption.

Patients who have had bad reactions to medications will show a similar pattern with GV-21 if the medication affects one of the NTs listed. One patient had been hospitalized for three months 25 years previously before her problem was identified as a continuing overdose of a GABA stimulating benzodiazepine tranquilizer. She had suffered with immune system problems of allergies and hypersensitivities ever since that time. TL to her thymus and spleen circuits repeatedly caused a weak muscle to strengthen from office visit to office visit. When we finally checked her by simultaneously TLing to the immune circuits and GV-21, we found a muscle weakening response. The weakening was also present on TL with the eyes superior position, and hence with GABA. Resetting the immune circuits with IRT with GABA in the mouth negated the recurrence of this problem.

Another example of an excessive intake which we are commonly encountering lately is with melatonin overdose. Patients who take melatonin usually take too large a dose or take it daily for a too prolonged period of time. When there is a recurrent muscle weakness pattern or visceral involvement, the associated NL will TL to strengthen a weak muscle, but will not cause indicator muscles to weaken. However, simultaneous TL to the NL and GV-21 will cause weakness. In the case of melatonin overdose, left gait combined with TL to the NL will also create general indicator muscle weakness. Oral challenge with melatonin with TL to the NL will also cause general indicator muscle weakness, usually all three types, G-1, G-2, and G-2 submax. Correction is by IRT to the NL with oral melatonin. This apparently resets the organ to a more normal level of function.

and 2 visual patterns allow screening for deficiencies or excesses of eight common structural and chemical patterns. Patient TL to GV-21 (or doctor tapping GV-21) screens for these important neurological and NT patterns. These patterns are commonly encountered in practice and often are the keys to returning our patients to optimum function.

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Parasympathetic?

Walter H. Schmitt, Jr., D.C., DIBAK, D.A.B.C.N.

Abstract

A method of evaluating the functional status of autonomic sympathetic and parasympathetic activity is discussed. Procedures using manual muscle testing outcomes based on sensory receptor based diagnostic challenges are employed. Challenge procedures for local (segmental) reflex patterns involve the visceral referred pain areas. Systemic (suprasegmental) challenge patterns include: visual focusing and light reflex patterns, TMJ and intrinsic spinal muscle patterns, spinal patterns of lateral flexion and gait, vertical eye position, and erotic thought patterns. Neurotransmitter activity is correlated with the various challenges when appropriate. The status of autonomic function predicts the most appropriate type of therapy to be delivered.

Introduction

When an applied kinesiology (A.K.) muscle test reveals a weak muscle,[1] there must be an inhibited central integrative state (CIS) at the alpha-motorneurons (alpha-MNs) which are the origin of the nerve to that muscle. The afferent inputs to alpha-MNs include collaterals from the intermediolateral (IML) column motorneurons (MNs) which are the primary autonomic MNs. Autonomic function which originates at the hypothalamus is transmitted to the brainstem reticular formation and this information descends to the spinal cord via reticulospinal tracts which affect both IML MNs and alpha-MNs. Therefore, changes in autonomic function will most certainly affect, in a predictable, specific fashion, the CIS of alpha-MNs and hence, muscle strength and weakness patterns.

Nociceptors in our tissues are activated by noxious mechanical and chemical (and thermal) stimuli and cause predictable reflex muscular activity through spinal cord reflexes. The nociceptors are part of what is called the flexor reflex afferent (FRA) pathway. In addition to the FRA effects of nociception (flexor withdrawal reflex, crossed extensor reflex, etc.) one of the programmed responses to nociception is stimulation of the sympathetic (SYM) IML. The vascular response to SYM stimulation throughout the body is one of vasoconstriction. The wisdom of this connection is that injury will activate a reflex SYM vasoconstriction which protects the body from bleeding to death at the site of lacerations or contusions.

extremities or intracranially. Therefore, in internal organs, vascular supply is a result of SYM and PS balance. In the extremities and head, vascular supply is dependent on whether the SYMs are "on" or "off" rather than being counterbalanced by PS effects.

In addition to it vascular effects, SYM activation associated with the fight or flee reaction excites some organs (heart, sweat gland activity, piloerector activity, etc.) and inhibits other visceral activity. Glandular secretions are inhibited and gastrointestinal motility is inhibited while GI sphincter muscles are increased in function. SYM stimulation, in essence, turns off GI function. In contrast PS activation slows the heart and increases gut functions of peristalsis and secretion while decreasing GI sphincter muscle activity.

Since autonomic functions implicate somatic motor pathways, changes in muscle function will accompany changes in autonomic (SYM and PS) status. To evaluate autonomic functions of the body we may use the observations of muscle strength and weakness patterns as well as changes in muscle strengths caused by various sensory receptor challenges. When an organ is dysfunctioning, it will be associated with either increased or decreased SYM activity and/or increased or decreased PS activity to that organ. Each of these four states can be identified by evaluating muscle testing patterns and responses to sensory receptor stimuli.

Since the only neurological processes associated with autonomic dysfunction are SYM and PS, we may use muscle testing to identify exactly which process is associated with an organ dysfunction. The challenges discussed may strengthen a weak muscle or weaken a strong muscle. Interpreting these responses is a great aid in diagnosing the processes which are dysfunctioning in our patients.

Discussion

Specific sensory receptor based diagnostic challenges may be used to identify local (segmental) or systemic (suprasegmental) influences on the function of the primary autonomic motorneurons in the IML, hence on the alpha-MNs and muscle function. Systemic influences affect the entire autonomic nervous system whereas local influences may be used to evaluate the level of function of one organ at a time. These will be discussed by category.

- **Local Autonomic Challenges**
- **Visceral Referred Pain Areas**

Nociception can be used as a challenge mechanism in A.K. procedures. Since nociception activates SYM activity, when nociceptive activity causes a strengthening response of a weak muscle it suggests that muscle weakness is, in part, related to decreased SYM activity. This decreased SYM activity is

afferents to the IML. The related viscera could be viewed as lacking normal SYM stimulation.

Clinically, pinching an area which results in a muscle strengthening can be interpreted as a need for more SYM activity in the area of the pinch. This is especially true when pinching the visceral referred pain (VRP) areas. *See figure 1.* A muscle strengthening response to pinching a VRP area would suggest that the related organ was deficient in SYM activity. This could be due to either deficient SYM activity or increased PS activity or both.

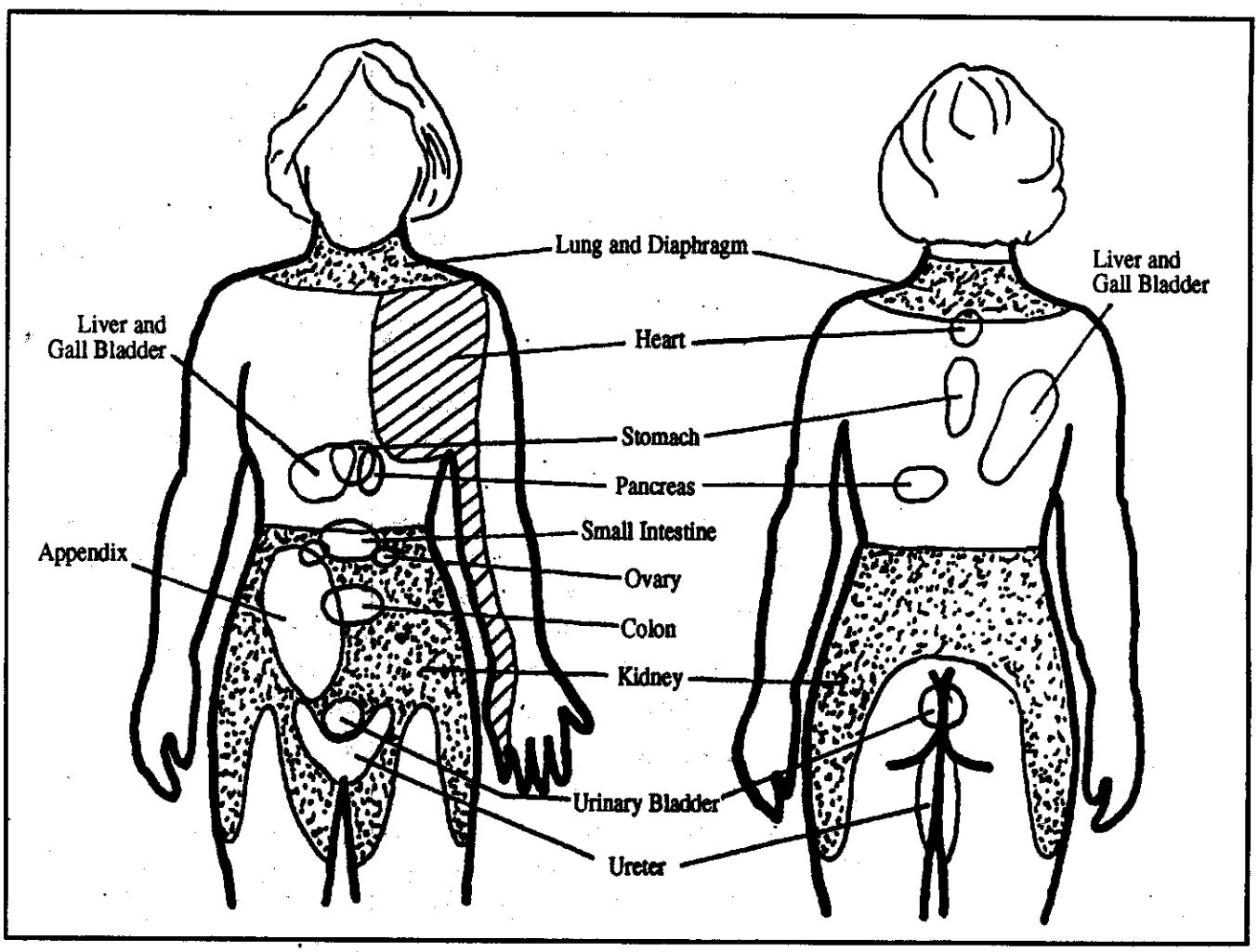
The converse of this, pinching over a VRP causing a weakening reaction, suggests excessive SYM activity of that organ.

Nociceptive reflexes, including those which affect the IML and SYM function, are blocked by mechanoreceptor (MR) activity. One might say that nociception and MR activity are opposites.

If rubbing over a VRP area strengthens a weak muscle, this can be interpreted as a need for less SYM activity, more PS activity, or both for that organ.

When many or all VRPs respond to pinching (SYM) or rubbing (PS) challenges, look for a systemic challenge to be positive.

Figure 1
Visceral Referred Pain Areas



Visually following an object from near-to-far (such as following a finger from the tip of the nose outward) or focusing the eyes on a distant object invokes SYM function at the level of the IML of the upper thoracic cord. This is part of the pupillary dilation reflex associated with the need for more light to the retina when focusing on something distant.

Clinically, it appears that near-to-far activity or focusing on a distant object can represent a need for more systemic SYM function when either of these challenge activities results in muscle strengthening response.

A weakening response on near-to-far activity or distant focusing implies one of two things: 1) an excess of SYM activity, as might be expected, or 2) an inability of the body to mount a normal SYM response. These two situations are opposites.

Testing with a SYM neurotransmitter, such as norepinephrine (NE) can guide you to make the proper diagnostic choice. If NE causes a weakening reaction also, then this implies an excess of SYM activity. If the weakening reaction is negated by NE, this suggests that the SYMs are unable to properly respond. Often this is due to a nutritional need for one of the nutrients necessary to produce NE. These include tyrosine, niacinamide, folic acid, pyridoxine, ascorbic acid, or copper.

Likewise, we can test for systemic PS activity by focusing on a near object (such as the tip of the nose) or by far-to-near visual activity as the eyes are converging. This is part of the pupillary constrictor activity to limit the amount of light hitting the retina when focusing up close.

If a weak muscle strengthens on focusing on a near object such as the tip of the nose, it suggests a need for more PS function.

A weakening response on far-to-near activity or near object focusing implies one of two things: 1) an excess of PS activity, as might be expected, or 2) an inability of the body to mount a normal PS response. Again we are confronted by a sensory receptor challenge which presents two opposite diagnostic interpretations.

Testing with the PS neurotransmitter, acetylcholine (ACh) guides you to make the proper diagnostic choice. If ACh causes a weakening reaction also, then this implies an excess of PS activity. If the weakening reaction is negated by ACh, this suggests that the PSs are unable to properly respond. Often this is due to a nutritional need for one of the nutrients necessary to produce ACh. These include primarily choline and pantothenic acid.

There are spinal implications to the visual SYM and PS activity. (This may be due to the fact that center line body structures including the eyes, spine, and tongue) are all related embryologically in that they are somatic motor structures.) As one peers into the distance, there is a tendency of the spine to move forward into flexion. As one has an object moving toward him, there is

a tendency for the spine to move into extension or back off from the approaching object. These SYM and PS spinal functions are compatible with those discussed below in the section on TMJ and intrinsic spinal muscle function.

Systemic Autonomic Challenges - Light Reflexes

Shining a light in the eye causes a pupillary constriction reflex mediated through the Edinger-Westphall nucleus of cranial nerve III, the oculomotor nerve. This PS reflex may cause strengthening or weakening responses indicating a need for more or less PS activity, respectively.

Decreasing the light hitting the retina results in a pupillary dilation associated with SYM activity. Testing this usually involves turning off the lights in the room and testing muscles immediately afterward. This procedure is cumbersome and awkward and is associated with traditional A.K. testing for pineal function for which it is very useful. Both light reflex patterns are far less useful on a daily basis than other tests for SYM and PS function.

Systemic Autonomic Challenges - TMJ and Intrinsic Spinal Muscle Function

In a paper entitled "TMJ and Intrinsic Spinal Function"[2] it was proposed that TMJ retrusion and protrusion are associated with spinal intrinsic muscle activity and specific neurotransmitters. Jaw retrusion strengthening a weak muscle is associated with intrinsic spinal flexor muscle activity, NE and SYM function.

This suggests that if jaw retrusion strengthens a weak muscle, it is associated with a need for increased SYM activity. This may be thought of as a part of the fight or flee reaction, particularly in relation to the concept of "setting one's jaw" to go into battle or other conflict.

If jaw retrusion causes a weakening reaction, this implies excess SYM activity.

Parallel changes in muscle strength may be induced by having the patient tense the spine. Tensing the spine is a more difficult procedure than TMJ retrusion due to changes in body position which interfere with standard muscle testing positions.

Jaw protrusion is related to intrinsic spinal extension, as in relaxing the spine in the supine position, and glycine. Although glycine is not strictly associated with PS function, intrinsic spinal extension is the opposite of the intrinsic spinal flexion activity seen in increased SYM states. It is likely that jaw protrusion strengthens a weak muscle, it is associated with a need for more PS activity. When jaw protrusion causes a weakening reaction, it implies an excess of PS activity.

Having the patient relax the spine is also more difficult clinically than employing jaw protrusion. It is difficult to relax the spine and then tense somewhere else to perform muscle testing.

Systemic Autonomic Challenges - CTS

Concepts of centering the spine (CTS) predict that each of the three spinal types of motion is associated with a central autonomic or endocrine control pattern.[3] The three CTS patterns are 1) lateral flexion, 2) flexion - extension, and 3) spinal torque as in gait patterns.

There are several neurological levels of activity of central control mechanisms which may affect CTS positions. Only the autonomic patterns and not endocrine patterns will be discussed here. However, the endocrine patterns must be corrected[4] or ruled out prior to autonomic CTS evaluation for the following discussion to be most relevant.

Spinal lateral flexion convex to the left (head and feet to the right) is associated with SYM activity, especially alpha-adrenergic activity. If a weak muscle strengthens on left lateral flexion (head and feet to the right) it suggests that there is need for more SYM activity, especially alpha-adrenergic activity. The weakness will also respond to oral NE or inositol. Inositol is part of the second messenger system for alpha-adrenergic activity involving the intracellular second messenger phosphatidyl inositol. If a muscle weakens on left lateral flexion (head and feet to the right) or on insalivation of inositol, this implies excess alpha-adrenergic activity.

Spinal lateral flexion convex to the right (head and feet to the left) is associated with PS activity. If a weak muscle strengthens on right lateral flexion (head and feet to the left) it suggests that there is need for more PS activity. The weak muscle will also respond to oral acetylcholine and usually choline as well. (It will not respond to nicotine. Since there are two types of cholinergic receptors, nicotinic and muscarinic, this would suggest that this pattern is associated with muscarinic cholinergic receptors.) If a weakening effect is produced by right lateral flexion (head and feet to the left) it indicates an excess of PS activity.

Right foot forward gait is associated with NE activity, specifically beta-adrenergic activity. If a weak muscle strengthens with right gait activity, it suggests a need for more SYM, especially beta-adrenergic activity. The weakness will also respond to oral NE or caffeine. Caffeine affects the second messenger system for beta-adrenergic activity prolonging the activity of the intracellular second messenger cyclic AMP. If a strong muscle weakens on right gait activity, this signifies an excess of beta-adrenergic activity.

Rolling the eyes inferiorly is associated with cholinergic activity, especially nicotinic cholinergic activity, hence PS function. This may be explained as a CTS relationship because in a PS reaction, the spine tends toward extension,

and as a part of that activity, the eyes must compensate inferiorly to maintain body posture in a steady state. If rolling the eyes inferiorly strengthens a weak muscle, it suggests that there is a need for more PS activity. The weak muscle will also strengthen on oral stimulation with acetylcholine or nicotine. If rolling the eyes inferiorly results in a weakening of a strong muscle, this implies an excess of nicotinic cholinergic PS activity.

At our present level of knowledge, left foot forward gait and eyes up patterns are not associated with autonomic function in a clinically relevant way.

Systemic Autonomic Challenges Erotic Thought Pattern and Dopamine

Sexual arousal is associated with increased SYM activity. It is well known that this is associated with pupillary dilation as part of this overall reflex SYM activity. SYM activity can be activated in some patients by asking them think about an erotic thought. (Of course, this should be done with a staff person in the room.) The erotic thought will strengthen or weaken some patients as an indication of a need for or an excess of SYM activity, respectively.

Dopamine (DA) tested orally (homeopathic DA is acceptable) will parallel the strengthening or weakening response caused by the erotic thought. DA is a neurotransmitter associated with fantasy and many hallucinogenic drugs are dopamine agonists. It is usually preferred to check this pattern using oral dopamine rather than asking the patient to think of something erotic.

A Model for Neurolymphatic Reflex Activity Increasing Parasympathetic Activity

Clinical and anatomical evidence suggests that the response achieved by manipulating the neurolymphatic (NL) reflexes is due to a relative increase of PS activity due to a reduction of over stimulation of SYM activity at the IML.

The NL reflexes are mostly located in the intercostal spaces. When these areas are involved, they palpate as nodular and tender. The palpation findings are similar to what is described as triggerpoints. If we assume that these areas are of greater irritability than surrounding areas, then the irritable tissues would be expected to send increased afferent activity to the spinal cord during weight bearing and during movement (including respiration.)

Nociceptors and many other sensory receptors in the intercostal areas have direct contact with the IML primary autonomic neurons.[6] We can understand the nature of the NL if we assume that an involved NL will create a local irritable focus which will drive the IML to an increased state of activity. From T-1 to L-2, increasing IML firing will result in increased SYM outflow.

Although manipulation of the NLs often causes an increase of stimulation of local nociceptors during the manipulation, the net result following NL treatment is decreased irritability. NL treatment normalizes afferent activity originating in the intercostal spaces. This decreases the afferent bombardment which is driving the local IML neurons to increased SYM activity. NL treatment results in a decreased SYM activity for those organs which are influenced by the local level of SYM outflow.

If PS outflow to those organs remains the same, the net result of treating an NL will be an increased relative PS activity of those organs which are affected. Since PS activity causes vasodilation to the viscera, increased organ secretion, and in the gut, increased peristalsis, the net affect of treating an NL would be to increase the function of the organ(s) which were treated. This is what we see clinically.

The changes in muscle strength from treating an NL reflex can be explained by the collateral connections from the IML axon which reach alpha-MNs. These are the same alpha-MN connections which are utilized by all flexor reflex afferent pathways in the flexor withdrawal and crossed extensor reflexes. It is reasonable to expect changes in muscle strength with facilitation of weak muscles and inhibition of "tight" or "spastic" antagonists to the weak muscles as a result of normalizing feedback from an active NL reflex. This is, of course, what we observe.

Therefore, we would expect the use of NL manipulation to be indicated when an organ required more PS activity. For example, a patient with digestive symptoms compatible with hypochlorhydria presents with a weakness of the pectoralis major, clavicular division (PMC). Since glandular secretion of the stomach is a PS function, one would guess that the stomach was overly SYM and/or under PS. Rubbing the VRP (*see figure 1*) for the stomach is similar to stimulating PS activity by blocking SYM activity. It would be expected, then, that rubbing the stomach VRP should strengthen the PMC. Likely (but not necessarily) pinching the stomach VRP would create a muscle weakening reaction as this stimulates the already overactive SYM system via the IML at this segmental level.

Treatment is manipulation of the stomach NL to break up the noxious trigger-point-like tissue changes which generate the noxious stimuli. The net effect is increased PS activity of the stomach, better HCl production, and a strong PMC.

Ileocecal Valve

If a patient shows an open ileocecal valve (ICV) syndrome, this suggests increased PS activity, at least at this part of the GI tract. One would expect that one of the SYM factors would negate the ICV open challenge.

Sometimes, we find that one of the PS factors negates an open ICV. This may be out of context, in a sense, a form of switching. Or on the other hand, if increasing PS activity strengthens a stomach or pancreas related muscle, it may be that the lack of adequate stomach or pancreatic secretions is setting up an abnormal gut function which is resulting in a local irritation of the ICV and its open state. Diagnosing the autonomic process in this manner allows us to understand a patient's physiology and choose the most effective therapeutic procedures.

When an open ICV (or any other organ dysfunction) is found, check it while each of the following SYM and PS challenges are performed. Neurotransmitters which may be used to challenge are listed in parentheses.

Summary of Challenge Procedures

1. SYM: Pinch the various VRP areas. PS: Rub the various VRP areas.
2. SYM: Focus the eyes on the ceiling OR Follow a finger from near-to-far. (NE)
   PS: Focus the eyes on the tip of the nose OR Follow a finger from far-to-near. (ACh)
3. SYM: Retrude the jaw (or tense intrinsic spinal muscles) (NE)
   PS: Protrude the jaw (or relax intrinsic spinal muscles) (GLY)
4. SYM: Laterally flex the spine convex to the left (head and feet to the right) (NE, inositol)
   PS: Laterally flex the spine convex to the right (head and feet to the left) (ACh)
5. PS: Eyes inferior (ACh, nicotine)
6. SYM: Right gait pattern (NE, caffeine)
7. SYM: Erotic thought (DA)

One or more of the systemic SYM factors (#s 2-7) should negate the ICV open challenge. If no systemic SYM factor negates the open ICV or if one of the PS factors negates the open ICV, suspect switching or some other type of neurological disorganization including pelvic flexion switching.[5]

As mentioned previously, it is best to first correct or rule out CTS problems affecting the hypothalamus and the reticulospinal pathways descending from the hypothalamus. Problems in these areas may summate with the SYM and PS factors mentioned and create a confusing clinical picture. These factors include systemic steroid and thyroid imbalances (related to lateral spinal flexion patterns, pituitary TL, and coccyx TL) and emotional stress factors (related to spinal flexion, fight or flee patterns.)[4]

Conclusion

A weak muscle as seen in A.K. testing is a manifestation of inhibition at the anterior horn motorneurons. alpha-MNs are affected in part by collaterals arising from the primary autonomic MNs in the IML. IML autonomic MNs are affected by numerous afferents arising both segmentally and suprasegmentally.

Sensory receptor based diagnostic challenges, including nociceptors, mechanoreceptors, visual, and gustatory receptors, may be used to evaluate the functional status of autonomic activity in our patients via the IML and alpha-MN connections. With these testing procedures, it is no longer necessary to merely describe an organ as dysfunctioning or to guess at its status. We may make interpretations regarding the exact SYM or PS nature of the dysfunction. This diagnostic advantage better guides our therapeutic measures and improves the potential for favorable outcomes for our patients.

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Using Mechanoreceptor and Nociceptor Challenges to Guide Therapy to Injured Areas

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Abstract

Muscle testing responses to stimulation of various sensory receptors guides the doctor to the appropriate therapy in relationship to previously injured areas of the body. When pinching (nociception) over an area of injury strengthens, set point technique is indicated. When pinching weakens, nociceptor-stimulation blocking technique is indicated. When rubbing over an area of previous injury strengthens, injury recall technique is indicated. When rubbing weakens, a new technique, hidden adaptation technique, is indicated. Hidden adaptation technique identifies a hidden subluxation. The procedure for this new approach is described.

Introduction

Both the conscious and unconscious effects of pain are dependent on the interaction of two types of sensory receptors and their afferent fibers: the nociceptors (NOCs) and the mechanoreceptors (MRs). NOCs are excited by noxious stimuli, and MRs are excited by mechanical stimuli. We can use these principles as the basis for sensory receptor based diagnostic challenges. For example, on the skin, we can manually stimulate NOCs by pinching and we can manually stimulate MRs by rubbing or stroking.

By observing muscle testing outcomes which result from such sensory receptor diagnostic challenges, we have five possibilities: rubbing strengthens, rubbing weakens, pinching strengthens, pinching weakens, and no change in muscle strength. Each of the first four possibilities directs us to a different treatment procedure to normalize the patient's functional neurological status.

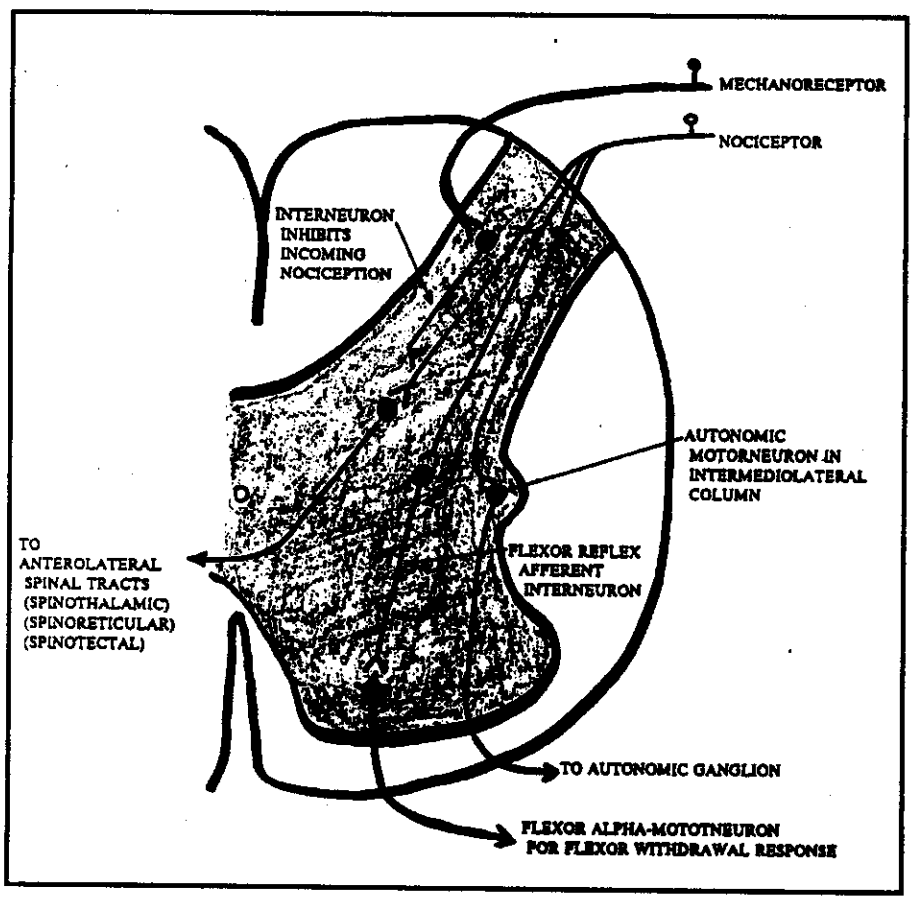
Discussion

Pain begins as activation of NOCs in tissues and actually becomes pain when it reaches the limbic system of the cerebral cortex. Everyone has experienced and is familiar with the conscious experience of pain. What may be less understood, but has major impact on our health, are the unconscious effects of nociception. These effects on muscular and autonomic function always accompany conscious pain, but are also present as a result of nociception which does not reach conscious awareness. That is, nociception has extremely important effects on muscular and autonomic activity via reflex pathways both segmentally at the spinal cord level and suprasegmentally at the hypothalamus and brainstem levels.

Although there are continuing advancements in the understanding of pain, its perception, and associated effects, there are several fundamental concepts which affect our patients and ourselves. One of these is that there are three areas of modulation of nociception, and hence, modulation of pain.

The three areas for modulation of pain in the nervous system are 1) at the spinal cord, 2) at the caudal reticular formation (CRN) of the brainstem, and 3) at the rostral reticular formation (RRN) of the brainstem. This paper discusses the first two of these areas and presents sensory receptor diagnostic challenges, the responding to which may be measured by muscle testing outcomes. The outcomes of these sensory receptor challenges are a guide to the level of neurological involvement, and hence predict the nature of the most appropriate treatment procedures to be employed.

Figure 1
Spinal Cord Effects of Nociception



Segmental (Spinal Cord) Modulation of Nociception

NOCs are sensory receptors in the tissues which are activated (depolarized) by noxious stimuli. These noxious stimuli may be mechanical, chemical, or thermal in origin.

MRs are sensory receptors which are activated by any mechanical activity. This includes touch and pressure receptors, muscle spindles, Golgi tendon organs, and ligament receptors. NOCs and MRs can be considered as opposites

of each other due to their effects in the spinal cord. *Figure 1* shows that the transmission of nociception is blocked by an interneuron which is driven by MR afferents. That is, MRs and NOCs have opposite net effects on nociception transmission.

Note also in Figure 1 that the intermediolateral cell column (IML), the area of primary autonomic motor neurons, is excited by NOC afferents. The autonomic efferent activity is also blocked by MR afferent collaterals *(not shown in Figure 1.)* In this sense, NOCs and MRs have opposite effects on autonomic motor activity.

NOC collaterals cause reflex muscular activity as a part of the withdrawal reflexes mediated by the flexor reflex afferent (FRA) system. MR activity also affects muscular activity, but due to its effects at blocking incoming nociception, MR activity also has the opposite effect on muscular excitation and inhibition patterns from NOCs.

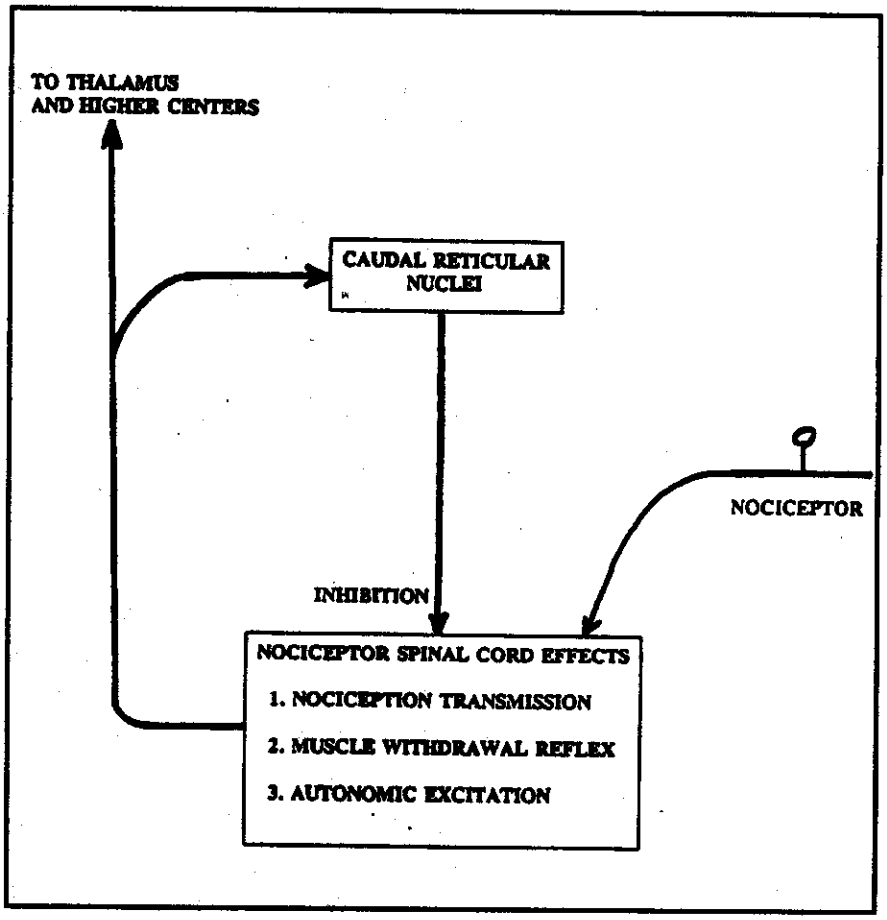
Therefore, in the spinal cord, the actions of NOCs increase NOC transmission and autonomic outflow while the actions of MRs block NOC transmission and autonomic outflow. Likewise, the effects of the NOC and MR on muscular activity are opposites.

Suprasegmental Modulation of Pain

Nociceptive transmission to higher levels is via the ascending anterolateral spinal system which includes the spinothalamic, spinoreticular and spinotectal tracts. Some of the spinoreticular fibers excite neurons in the CRN, the second area of pain modulation to be discussed in this paper. *See Figure 2.* The axons of these CRN neurons descend in the medullary reticulospinal (RST) tract in the dorsolateral fasciculus of the spinal cord and end in the spinal cord. At the spinal cord level, these CRN neurons have the same three effects as MR afferents: 1) blocking (inhibition) of NOC transmission, 2) blocking (inhibition) of autonomic outflow, and 3) effects on somatic muscle function.

The major difference between the segmental and suprasegmental

Figure 2
Suprasegmental Modulation of Nociception



activity is that, at the spinal cord level, the blocking of incoming nociception, and hence pain, is driven by stimulation of segmental MRs. *(Figure 1)* The suprasegmental reflex pathway for descending nociception blocking pain control may be driven by NOCs themselves. In other words, nociception reflexly turns itself off by the descending medullary RST pathway. *(Figure 2)*

You may observe this yourself. Pinch your arm. Notice the pain. Rub the area immediately above the pinched area. Notice how the pain is immediately diminished. This is the MR blocking of pain at the spinal cord level.

Pinch yourself again and maintain the pinch. Observe that the pain gradually diminishes on its own. This is (at least in part) due to the nociception reaching the CRN and the CRN in turn inhibiting the nociception by the descending pathway to the spinal cord.

These MR and NOC receptors stimuli are the basis for sensory receptor diagnostic challenges which may guide our therapeutic choices. The following table (abbreviations spelled out in text below) is not to be taken as an absolute since there are a number of other factors which may be corrected in a patient which may affect these two pain modulating pathways and alter pain perception, muscular activity, and autonomic activity. But it is a general guide to help us clinically apply the neurology of pain in a predictable manner.

	Rubbing	Pinching
Strengthens	IRT	SP
Weakens	HAT	NSB

Except for hidden adaptation technique (HAT), these patterns are based on the presence of a G-2 submax type muscle weakness. This is the doctor started, concentric submaximal contraction, followed immediately by pressure in the direction of eccentric contraction.[1]

Clinical Applications

The body's response to injury is of extreme importance in the overall understanding of processes which affect our health. The distinguished podiatrist, Gordon Bronston, told me, "the single most important factor in the history of a patient is the history of injury and trauma."[2] George Goodheart, in his 1992/93 research manual, discussed corrections of spinal subluxations coincident with the patient's recall of a physically or emotionally traumatic event.[3] It is the nervous system's awareness of injury patterns, past or present, that dictates much of our physiological adaptation and response.

When rubbing or stroking the skin over the area of injury results in muscle strengthening, you will also find a negative response to autogenic facilitation as described by Richard Belli.[4] Both of these findings are indications to perform injury recall technique (IRT).[5]

cause a muscle strengthening reaction via the medullary CRN reflex pathway and its effects (via interneurons) on the MNs in the anterior horn. This suggests that the weakness is present due to a net inhibition (due to a lack of excitation) of these MNs which may be overcome by activating the CRN descending pathway.

Pinching (or adding any increased nociception from any stimulus) over an area of injury which results in a general muscle weakening is an indication for nociceptor-stimulation blocking (NSB) technique.[7]

Hidden Adaption Technique

A more recent observation, which is being called hidden adaptation technique (HAT), has shown that rubbing over an area of previous injury may also result in a weakening reaction. This pattern causes a weakness of only selected muscles rather than the general weakness pattern which is caused by pinching in NSB technique. The muscles weaknesses created are usually those associated with chronic symptoms and which are often seen to recur including ileocecal valve problems. After other major factors such as centering the spine and cranial faults have been corrected,[8] the rubbing induced weaknesses are of the doctor started, G-1 only type.

Associated with this G-1 muscle weakness induced by rubbing a previous injury is a subluxation somewhere in the spine. This subluxation, like the muscle weaknesses, will only therapy localize (TL) and challenge after rubbing the area of previous injury. Like the muscle weakness patterns, the weakness associated with the challenge should by G-1 only. The subluxation must be adjusted immediately following rubbing the previously injured area. This approach negates all weaknesses previously created by rubbing the area.

It is as if a person had a stone in the shoe and had adapted to this by walking on the side of the foot. In time, the body adapts by strengthening the weak muscles and covering up associated subluxations. It now considers this adaptation the new normal. But the effect of the adaptation is a recurrent pattern of other muscle weaknesses and subluxations. Correcting these secondary problems results in a return to the adapted state. Everything looks okay and tests okay, but the body is still in a state of adaptation.

Rubbing the area of previous injury blocks the effects of nociception on spinal cord and CRN reflexes allowing the pattern of the adaptation to be seen. It is thought that the adaptation operates neurological pathways which hide the weaknesses and subluxations. These are only brought out in the open by rubbing over the previous injury.

MRs blocks spinal muscular patterns and blocks nociceptive transmission to the CRN. With these responses temporarily eliminated, the underlying adaptive weaknesses open to discovery.

This might be better understood by the following example of these principles. A man has a stone in the shoe (as an example of an injury) causing him to stand and walk on the outside of his foot. The pain created by the stone caused this adaptive muscular response which increases MR activity from the muscles and joints on the lateral side of the leg all the way up to the spine where the sacroiliac subluxates as part of the adaptation. Unfortunately, the MRs which would block the nociception from the stone include all of the medial muscle and ligament MRs as well as MRs from normal sacroiliac movement. These are precisely the MRs which are being inactivated by the adaptation of walking on the outside of the foot. Putting the weight back on the stone simply causes muscular reflex activity to put the weight back on the outside of the foot, creating an unacceptable vicious cycle, so the body adapts.

In time, the body adapts to this unsolvable situation by accepting the standing and walking on the outside of the foot as normal. When the muscle imbalances and the sacroiliac subluxation are considered normal, this means that the body has found a way to adapt so that these muscles are not weak in the clear and the subluxation is adapted to so that it does not TL or challenge.

When the stone is removed from the shoe (the injury has healed), the body is still caught in its adaptation. Pinching over the area where the stone irritated only serves to increase the adaptation. But rubbing over the area where the stone irritated makes the body think that the stone may be gone and that the whole situation may be resolving. As it attempts to return to normal, the body is confronted by the muscle weaknesses and sacroiliac subluxation which were part of the adaptation. Since the body thinks that the stone may be gone, it now treats these adaptations as problems rather than as normal, and the sacroiliac will TL and challenge as expected. Correction of the sacroiliac subluxation returns the body to true normal, since the stone in the shoe has been removed.

Correction of the subluxation following rubbing the previously injured area appears to have effects on all three areas impacted by nociception: pain awareness, muscle balance, and autonomic function. We have also observed clinical improvements in immune system function such as decreased susceptibility to allergens following this treatment. The immune system effects are probably directly associated with the normalization of autonomic function.

does two things. First, it guides us to the correct next step in treating each patient. Secondly, it allows us to predict new approaches based on known neural pathways which have not been investigated as yet with A.K. The proposed methods for selecting the most appropriate therapy for each patient are based on observing the muscle testing outcomes to sensory receptor based diagnostic challenges of MRs and NOCs.

Summary of Procedures

Over areas of previous injury:

1. Pinching (nociception) strengthens, set point technique is indicated.
2. Pinching weakens, NSB technique is indicated.
3. Rubbing strengthens, IRT is indicated.
4. Rubbing weakens, hidden adaptation technique (HAT) is indicated.

Hidden Adaptation Technique (HAT)

1. Rubbing over area of previous injury brings out G-1 weaknesses of one or more muscles, usually those which have been recurrent problems for the patient.
2. Rubbing over area of previous injury brings out TL and challenge of a subluxation(s) which were not previously apparent. Challenge weakness should be G-1 only also.
3. Adjust subluxation immediately following rubbing area of previous injury.
4. Rubbing over area of previous injury now has no effect.

Proceedings of the ICAK-U.S.A. Volume 1, 1995-96. p. 63.

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Balancing Internal Acoustics

Dale Schusterman, D. C., DIBAK

Abstract

This paper will discuss the function of ear dominance and how that impacts upon the nervous system. The work of Alfred Tomatis, M.D. provides the basis for this discussion. Hearing is the first sense to develop in utero at around six months and is therefore the first and most important link with the outer environment. Later, with the development of language, a neurological dominance is created in the nervous system as a result of the neural tracts involved. This dominance correlates with left brain and right ear function. All functions in the human body must be properly aligned under the guidance of the right ear in order for there to be balance. Any pattern not amenable to right ear control is potentially invisible to the applied kinesiologist or any other therapist trying to create balance in the system. Procedures to evaluate these patterns and make appropriate corrections will be given.

Discussion

Alfred Tomatis, M.D., a French ear surgeon for over 50 years, has pioneered many new advances in sound therapy and in the understanding of hearing.[1] He has developed many technologies to improve hearing and especially listening ability. His work has tremendous impact on dyslexia and learning disabilities of all kinds – autism, depression and emotional problems. He has also enabled many musicians and orators to improve their skills. His research is based on the observation that, "the voice reproduces only what the ear hears."[2] Much of his research revolves around how language and hearing develop and function through the nervous system. The neurological model of hearing and listening that Dr. Tomatis puts forth has immediate application to applied kinesiology (A.K.) testing as will be discussed.

The basis of Dr. Tomatis' work focuses on ear dominance. He states that normal function is for the right ear to be dominant or for one to lead with the right ear. We hear with both ears, but the right ear should initiate hearing. The same process occurs in vision as we generally sight with one (dominant) eye. If both ears were to lead, then there would be competition and confusion from the dual messages. When each ear takes turns leading, depending upon the circumstances, as is the case with most people, there are blocks to the smooth function of the nervous system. Consider how confusing it would be for two people to talk to you from different sides of your head at the same

stimulus, then the other can come into play and add its perspective.

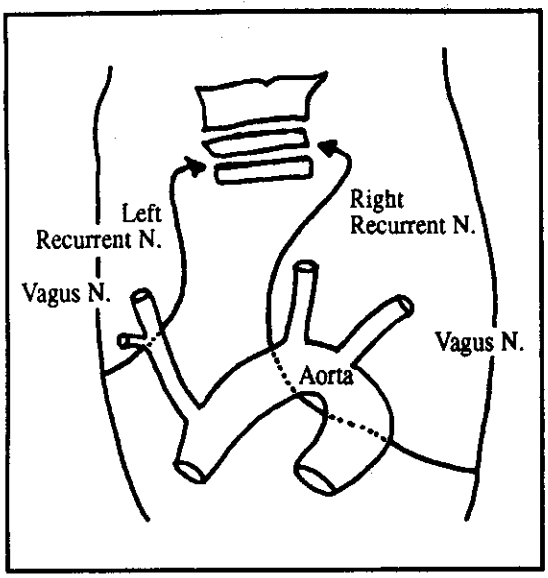


Figure 1

This choice of the right ear might sound like an arbitrary decision, but Tomatis suggests an anatomical reason for this to be the case. The recurrent laryngeal nerve comes off the vagus nerve and proceeds to the larynx. *(figure 1)* The pathway of this nerve is shorter on the right side of the body than it is on the left. On the left side of the body, the nerve has to travel around the heart and therefore is longer in distance. This makes it faster and more efficient to hear and produce speech if the right ear is in the lead. The difference in time that it would take to for a signal to pass through the right versus the left laryngeal nerve is obviously extremely small. Nevertheless, a preference to the right appears in the functioning of audition and speech. Tomatis' theories have proved quite effective in their application and the procedures that follow are likewise highly effective. Tomatis' postulates that the reason most people are right handed is due to the development of the language centers in the left hemisphere of the brain. The right ear connections to the left brain and the shorter right laryngeal nerve that crosses over into the left hemisphere become the pathway of choice for auditory/vocal development. A facilitated loop is established between the right ear, left brain, larynx and right ear. This stimulates left brain anchoring for language. With the development of language and its effect upon the growing nervous system, a preferential dominance is created which manifests in our laterality or handedness. Persons who are deafmute and who have not been trained in language are always ambidextrous.[4] Paul Madaule states in his book, *When Listening Comes Alive*,[5] "children with language delays or impairments; or without any language whatsoever – such as children with deafness, Down's Syndrome, or autism – show a higher incidence of mixed dominance. This is also true of learning disabled children." This astonishing correlation helps show the effect of language and speech on the nervous system. When the language is confused, the body is confused. Certainly many people who are not deafmutes are ambidextrous or even left handed. Being left handed is not wrong, but it is more inefficient to the nervous system. Many creative and talented people have used their left handedness to their benefit. Dr. Tomatis claims that he can reverse laterality from left to right handedness if sound therapy is done on a child at a young enough age. This is not meant to be a discussion about the correctness of being right or left handed, but to show that the development of speech and language creates a dominance in the nervous system. Language is one of the major features that distinguish us over other creatures and its role in neural development cannot be overlooked.

Dr. Tomatis theorizes that when a child hears sounds that are painful or messages that are painful, there is an adaptation to the left ear for dominance. This switching mechanism allows the child to 'get away' from the directness

learn to turn off our listening. When we experience something painful, we usually adapt to it by not listening to the messages that we hear. This adaptation occurs by shifting away from the primary listening mechanism and routing the messages through the longer pathway of the left ear. Any trauma in the last trimester of pregnancy or early childhood, a separation from or difficulties with the mother, ear infections and other stresses may precipitate this auditory shift. I suspect that this might also become a learned pattern for many children if their parents have developed left ear dominant patterns, since children mimic and copy their parent's behaviors.

The ear is developed in the fetus at about four and a half months and at six months the acoustic nerve is myelinated and is able to carry sound impulses. Researchers have shown that at six months the fetus is able to hear and respond to sound.[6] The child then begins its auditory bonding or withdrawal from the mother. In the treatment of autistic children (auditory bonds not developed), Dr. Tomatis filters the mothers voice through water to simulate the womb, removes certain frequencies and disguises the voice electronically. He then plays the altered sounds primarily into the right ear of the child. Over several weeks or months, the sounds are gradually unfiltered to reveal the mother's voice to the child. This reproduces the gradual transition to awareness of the mother's voice that occurs in the womb. When the child finally recognizes the mother's voice there is often a dramatic reconnection with the mother.

Other conditions that respond very well to the Tomatis sound therapy are depression, dyslexia and learning disabilities. Not all problems like this relate to hearing, which is why auditory tests are performed. The majority of these situations, however, reveal some difficulty with dominance and frequency interpretation. The Tomatis method has an extremely high success rate with these types of conditions. The sound therapy is also quite useful in enhancing musical skills and learning foreign languages. It is quite easy to learn multiple languages when we are young children. As we grow older, however, it not only becomes more difficult to learn a new language, to learn it without an accent is even harder. Our ear is not trained to hear the subtle nuances of sound in foreign languages. According to Tomatis, if we cannot hear the sounds, then we cannot reproduce them with our voices. Therefore, new learning can quickly occur in many areas through training the ear to be able to hear sounds that have been conditioned out of auditory awareness in childhood.

According to Tomatis, there is a reduction in hearing high frequency sounds (the mother's voice) when the withdrawal from right hearing preference occurs and much of the sound therapy revolves around rehabilitating high frequency reception in the right ear. He does this by stimulating the right ear

higher frequencies of classical music, for example, are energizing and enlivening to the body. On the other hand, low frequency sounds, such as rock and roll, and rap music tend to stimulate the vestibular system and require body movement (dance) to channel the energy. This can eventually tire the body.

There are many other types of sound treatments employed in this type of therapy which aren't appropriate for this discussion. But, there are several excellent books that go into detail about the mechanics of hearing at different ages and how different types of sounds effect the body.[7,8,9] You will also find very useful information on the Tomatis web page (http://www.tomatis.com/). Cassette tapes that contain the sound therapies are also available and are excellent to use with certain patients to enhance the procedures that are presented below.[10]

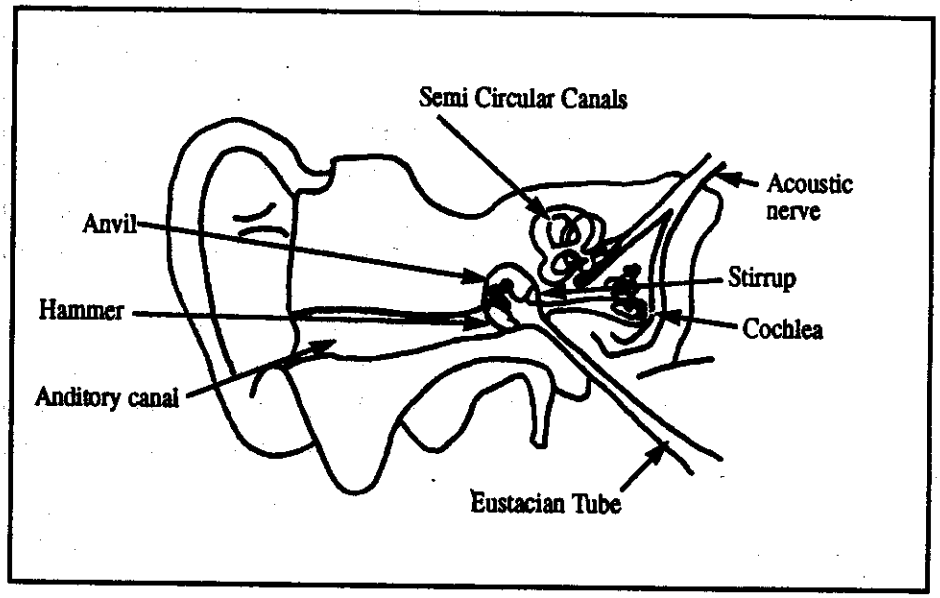
Tomatis performed studies on accomplished vocalists and actors to see how ear dominance would effect them. He had well known singers sing a certain piece several times. The first time they sang in a normal way. The second time he had them monitor their own voice with the sound coming only into their left ear. The third time they monitored their voice only through the right ear. When the voice was monitored via the left ear, the voice became flat, lost tone, tempo and expression. The singers also became more fatigued the longer they sang. The opposite occurred when monitoring the voice through the right ear. Their voices and energy became more buoyant, lively, and energetic. This experiment was repeated with actors monitoring their voices in the same manner. The results were the same. He also performed experiments using instrumentation to cancel or remove a certain tone or frequency in the earphones of someone singing and monitoring their own voice. This caused the singer to lose control of his/her voice. This shows the importance of hearing in relationship to the voice, since a problem with the voice is considered to be a problem of the ear. Whether the problem is stuttering, pitch, tonal quality, etc., what it reflects is the status of hearing and listening.

When we begin to test our patients to evaluate ear dominance we will find that everyone has many of these left ear dominant switched patterns. People will show both left and right ear preferences depending upon what you are testing. Any chronic problem or deep seated problem will have roots through the left ear instead of the right. In fact, whatever reason the patient is in your office for will probably have left ear dominance associated with it. It is as if they are switched at a core neurological, language based level. We have selective hearing or better yet selective listening and we switch to the left ear when we hear anything that is uncomfortable or stressful. It is an unconscious, automatic response. As applied kinesiologists, it is our job to understand body language. We use and investigate body language with each

know, contains two major organs, the trochlea and the cochlea. We have always been told that they represent different functions, that of balance and audition. Dr. Tomatis considers them to both be different ways of interpreting movement and vibration. The vestibular mechanism, with its utricle, saccule and three semi circular canals, performs a type of 'body hearing' or sensing of rhythm and vibration that we use to maintain our balance. He refers to the trochlear mechanism as the 'ear of the body.' As it turns out, there appears to be a need for right ear dominance with respect to the vestibular mechanism as well. The auditory portion of hearing is located in the cochlea and sends its signals through the acoustic nerve via the thalamus to the temporal lobes of primarily the opposite side. Hearing is integrated into the brain in a very comprehensive way and has many neural connections.

The middle ear consists of the three bones, the hammer, anvil and stirrup. They act to transmit sound vibrations from the outer to the inner ear. Two muscles are located in the middle ear. The tensor tympani muscle works with the hammer and the stapedius muscle works with the stirrup. Paul Madaule describes the function of these two muscles as the muscles of listening. He states that they act to focus our ear on specific sounds or to cut off certain sounds from our awareness. They act as a zoom lens for hearing. The more traditional role attributed to these muscles is to act to protect the inner ear from the damage of loud sounds. "When sounds are dangerously loud, the hammer muscle attenuates the vibration of the eardrum, and the stirrup muscle acts on the oval window to diminish the intensity of the incoming sound vibrations."[11] The stirrup muscle is innervated by the facial nerve. The digastric muscle, also innervated by the facial nerve, permits the opening of the mouth. The tensor tympani is innervated by the trigeminal nerve which also innervates the masseter and the temporalis muscles which act to close the mouth. This demonstrates another connection between hearing and speaking.

Figure 2



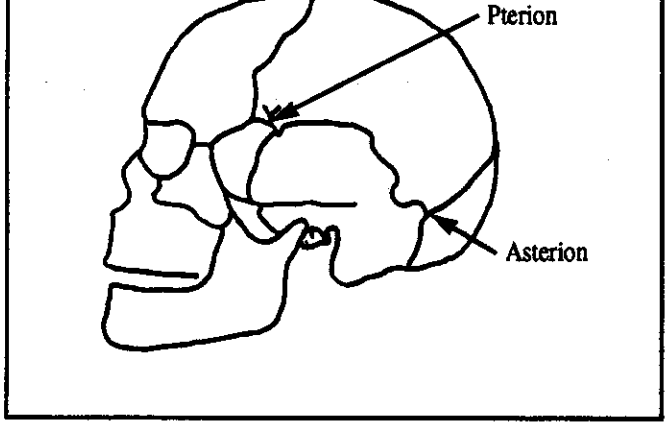


Figure 3

and concepts to investigate that are generated by this approach, however, the procedure for opening and balancing the left brain auditory pathway is quite easy. Therefore, I am introducing it here without any explanation, so that the ease of performing the technique will not be lost in the discussion that will follow this section. There are three steps to the procedure. First activate the 'ear of the body' (the vestibular system), then the auditory portion of the ear and then the larynx-all on the right side. Finish with the appropriate treatment.

1. Have the patient or doctor TL to the right asterion and pterion *(figure 3)* and hold this TL throughout the following three steps.
2. **Gently** move the right temporal into internal and external rotation. This movement is not breath related, can be done in either order and is a **gentle** contact to cause a slight motion of the temporal in each direction. Use only enough pressure to keep your fingers from slipping on the hair or skin of the temporal bone.
3. Close the right tragus and have patient say his/her name (or word) out loud.
4. Have the patient mouth his/her name (or word) without making any sound. They have to use the **same** word as in step 3. (Both ears open)

If we do this sequence and it exposes a weakness pattern, the result is quite dramatic. It weakens **every** A.K. tested muscle in the body with the exception of the area that is involved with this distortion. So, if the latissimus dorsi is the area that is involved, it will be the only muscle that will test strong by A.K. testing and all weakness will be neutralized by a latissimus reflex (NL, NV, etc.). Furthermore, once the generalized weakness has been produced, it remains. The patient can get up, walk around, go to the car and get something and when he/she returns, all muscles will still test quite weak. At this point you either need to treat and fix the weakness or have them close the left tragus and say the same word out loud and then silently mouth the word. This will bring the patient back into strength.

Governing Vessel that neutralizes the weakness and hold a TL at that point. This will open up one of the 12 set points (the beginning or ending points of the meridians) on the face to be active. Hold another TL at the facial set point or at its corresponding organ neurolymphatic. Then perform a very gentle traction on the talus bilaterally as in the injury recall technique (IRT).[12] This will reset the system and abolish all weaknesses.

3. There will almost always be a vertebra that will neutralize the generalized weakness. Challenge along the spine to find the vertebra that neutralizes the weakness and make the correction to that vertebra. You can also TL the vertebra and perform IRT. There is often a sequence of corrections needed to balance the hearing mechanism so it would be advisable to use a gentle approach such as IRT, activator or the next method.

4. There will often be an area of the skin on the cervical spine that will neutralize the generalized weakness.[13] Hold this point and find an area on the left side of the skull that tests weak and **lightly** tap this cranial point.

5. If there is no TL to GV 27 or to an area of the spine then there is probably a nutritional need. Use whatever means are available to you to find the nutrient, allergy or other chemical component that is necessary to bring the system back into balance. Start by finding the area of the body that is involved (a TL that strengthens the generalized weakness) and proceed from there. This procedure has helped me solve some very difficult nutritional problems with some patients.

Any of these treatment methods above will correct the imbalance. *Be aware that some people may experience some slight dizziness or disorientation following this type of treatment until they become accustomed to the new internal balance that you have created for them.* Once balanced, see if another pattern can be opened by using the above procedure. There are usually quite a few corrections that need to be made in the average patient. Once the pattern cannot be opened back up and there is no generalized weakness from the above procedure, it is necessary to investigate the right brain pattern and the other senses. This is presented in another paper, *The Right Brain Pathway and Sensory Dominance*.[14] This language/ear dominance technique may be done in the clear on any patient or in conjunction with an active TL, an area that has been treated but no longer TLs, with an affirmation, with sugar or any other substance in the mouth and so on. There are many applications that this procedure can be used with.

Test the upper trapezius on each side of a patient. As you know this muscle has been correlated with the eyes and ears. Then try to weaken each upper trap by turning off the muscle spindles (approximate the thumbs in the belly of the muscle so as to shorten the belly of the muscle and turn off the muscle spindle). This would be a normal function. Then have the patient therapy localize (TL) an area of the body that has been chronically involved or just recently treated which does **not** test weak. Now retest the right upper trapezius after shortening the muscle spindle. It should still weaken in normal fashion. After the trap returns to strength (or strengthen the muscle by lengthening-separating the spindle cells) have the patient speak while holding the TL to the area and then try to turn off the right upper trap again. This time you will find that the right upper trap can **not be** weakened. The switch to left ear dominance causes the right side to lock up or become hyper in response. On the left side you will find the opposite. If you start with a positive TL causing a weak left upper trapezius, then lengthening the muscle spindle to strengthen the muscle will not be effective if the patient is talking during the test.

As an experiment, have a patient talk, recite the alphabet or count while you test the sartorius or gracilis muscle. There should be no weakening. Then have him/her close the left tragus and continue talking. In most cases this will cause immediate weakening. Then have him/her close only the right tragus and continue talking. There should be no weakness. This weakness seems to primarily effect sartorius weakness due to the stress on the body, but you might also find that a person's major weakness area will also test in this manner. Now do the opposite test. First close both tragi, then have the patient open the left tragus and while talking retest the sartorius. It will again test weak. Close both tragi, then open the right tragus and while talking retest the sartorius. It will now be strong. This shows that closing one of the tragi causes a shift of focus to that side. (Or opening one if they are both closed to start with.) It doesn't matter if both ears are open or closed to start with since where the focus goes depends upon where the change occurs. If the ears are open as they usually are, then closing the right tragus brings the awareness to the right side. I have not had the opportunity to work with anyone who was bilaterally deaf, in which there is no auditory ear dominance. I would, however, expect there to be some vestibular preference. Patients with brain damage from a stroke or accident might also present a different pattern. One person who was deaf in the right ear showed the reverse pattern and they tested to be naturally left ear dominant. Left ear deafness gives the normal pattern of right ear dominance. Several persons who were mostly, but not completely deaf in one or both ears responded normally (right ear). **The tragus test is a good test to see if speech/ear dominance is involved in a weak muscle**

here is to be able to stimulate different parts of the hearing/speaking mechanism in a sequence that is useful to us. The way to do this is to mouth a word or phrase without making sound (I usually have people just say their name). In other words, have them move their lips and mouth the words without saying anything out loud. A good way to demonstrate the effect of this is to have a person mouth some words with the left tragus closed. Since the activation of the larynx is lead by the right side and the feedback mechanism is to the right ear, pulling attention to the left ear causes immediate weakness to occur in any strong test muscle. This weakness does not indicate a need for treatment. It only indicates that there is stress being put into the system from this activity. Closing the right ear does not have this effect. Therefore, moving the lips to mouth a word without making sound (with both ears open) facilitates the nervous system on the right side.

The vestibular mechanism located in the inner ear also has a right sided preference in a healthy person. Perhaps this explains why some athletes have such good balance. Maybe they have integrated their balance through their right side and therefore have more control. My initial work with the vestibular system involved moving the head into different positions to trigger a response. Later on I found that the easiest and most effective way to activate the vestibular mechanism on one side was to **slightly** move that temporal bone into internal and external rotation. To test this hypothesis, have a patient stand on one foot to cause stimulus in the vestibular system and then very slightly rotate the left temporal bone into internal and external rotation. Use only enough pressure to keep your fingers from sliding off the skin or hair. This should cause immediate weakness of any muscle tested. This should not be the case if you move the temporal on the right side.

In researching the patterns and combinations relating to the ears, hearing and the voice, I noticed a very interesting phenomenon regarding the asterion. The asterion is an area on the skull formed by the intersection of the parietal, temporal and occipital bones. *(figure 3)* This area relates to internal hearing or speaking. One way to demonstrate this effect is to have a patient TL to the left asterion and intentionally form words in his/her mind. Have the patient mentally count, recite his/her address or whatever. This will create weakness in all test muscles as shown with the previous tests. Weakness can also be observed if the patient speaks out loud as well. There will be no weakness created if these tests are performed with a TL to the right asterion. *One*

this by therapy localizing to the left asterion and pterion at the same time. Now, just quiet reflection should create weakness. It also works with hearing spoken words, so the patient can let his/her mind speak to him/her or hear someone else utter the words. In either case, it will generate the weakness. This pattern also will not show up until several treatments have been made to clear out the circuits. Since you are still contacting the asterion, there will also be weakness generated with intentional thought as well. Thought is language and it has its mechanisms programmed into the nervous system. It matters not whether the language is spoken out loud, sub-vocalized, intentionally mentally formed, quietly thought or heard. The right ear, left brain, right larynx, right ear pathway should be facilitated in the healthy individual.

After trying many, many combinations, I found that the **right** asterion and pterion must be contacted during each of the three steps of the procedure in order to get the most comprehensive results. If you choose to do the steps without either contact, it will still work, but certain patterns will be missed. If you add only the asterion contact, you will find more to balance. And if you add the pterion contact you will find even more. This is how the different steps were developed. It is interesting that the asterion and pterion connections are similar to the sphenobasilar contacts taken in cranial therapy. The sphenobasilar mechanism is the fulcrum for all motion in the skull and it is interesting that the function of thought process may have some correlation here. These two cranial junction points will be important when we balance both hemispheres together in the 'Right Brain Pathway' paper.

The concepts discussed in this paper have potentially broad implications. The connection between language and the nervous system should be very important to an applied kinesiologist. We are body language specialists, yet the very traits that make the human being so special, that of language, have not been fully integrated into our procedures. Through the tools of muscle testing and the insights of Dr. Tomatis, we can demonstrate that language on all levels is dominant from the right ear/larynx/left brain/right ear connection. The non dominant side is used for other purposes than to lead. It integrates and coordinates what the dominant right ear/larynx /left brain/right ear directs. When each side does what it is best at doing, then there is harmony and smooth function on all levels.

things that we spend time correcting quickly resolve with just this approach. We can then deal with other issues. The clarity and centeredness that people feel following this correction is often dramatic, but be aware for an occasional dizziness or disorientation which passes quickly.

This procedure may be used as a stand alone technique by following the steps provided until no more weaknesses can be elicited. It is best used in combination with the right brain techniques, described in the paper, *The Right Brain Technique and Sensory Dominance*. It may also be used as a part of any other specific procedure. If you are working on a chronic knee problem, endocrine imbalance, allergy or psychological issue, just TL to the area/affirmation and run through the steps of the procedure. Again, closing the right tragus and having the patient speak out loud will strengthen any weak indicator muscle if ear dominance is involved. You will find that many conditions that you thought you had fixed will reappear when investigated through the right ear.

Observations

1. Closing either tragus brings the focus that side.
2. Closing both tragi and then opening one side brings the focus to the side that is open.
3. Closing the left tragus and talking will weaken the sartorius or gracilis muscles.
4. Closing the left tragus and silently mouthing words will cause a generalized weakness. This weakness does not indicate a need for treatment, but demonstrates that the system has been stressed.
5. Closing the right tragus and talking will weaken any strong indicator if there is left ear dominance associated with that indicator (which is an imbalance).
6. Closing the right tragus and talking will strengthen any weak indicator if there is left ear dominance associated with that indicator (which is an imbalance).

weakness in all test muscles.

10. Mentally forming words in the mind will cause weakness with a TL to the left asterion. (One or more corrections may be necessary before this is demonstrable.)

11. Quiet mental reflection or hearing spoken words will cause weakness with a TL to both the left asterion and pterion. (One or more corrections may be necessary before this is demonstrable.)

Procedure:

1. Hold a TL to the **right** asterion and pterion throughout the following three steps.
2. Gently move the **right** temporal into internal and external rotation. This can be done in either order and is a **gentle** contact to cause a slight movement of the temporal in each direction.
3. Close the right tragus and have patient say his/her name (or any other word) out loud.
4. Open the tragus and have the patient mouth his/her name (or the **same** word) without making any sound. (Both ears open)
5. Adjust the area of the spine that neutralizes the generalized weakness that occurs from the above four steps. You can also find and TL a GV point that neutralizes the generalize weakness and then find and TL one of the facial set points. Correct with IRT.

Repeat the procedure until clear.

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The purpose of this paper is to further explore the way the nervous system functions with regard to the senses and laterality. A previous paper[1] investigated the left brain pathway with respect to the sense of audition/balance and language. This paper will explore the right brain pathway. The senses of vision, olfaction, taste and touch will also be discussed and methods of removing adaptation from them will be presented. Finally, the integration of both left and right hemispheres will be discussed.

Introduction

In a previous paper,[2] *Balancing Internal Acoustics*, I discussed how to evaluate and balance the auditory/speech mechanism. It was shown that language and the nervous system develop together and are therefore interdependent. Language on all levels integrates through the nervous system in a specific way. The neuroanatomy of speech and hearing dictates that there is a preference or dominance to the right ear/**left brain**/right larynx/right ear pathway for language development. This loop is a major integrative pathway for everything from vestibular function to thought process. This is due, at least in part, to the fact that the recurrent laryngeal nerve is slightly shorter on the right side of the body than it is on the left side. On the left side, this nerve has to travel around the heart in its path to the larynx and therefore is longer in length than the right recurrent nerve. Methods for testing this hypothesis and a protocol for treatment were discussed in the previous paper. This paper will investigate the other side of the brain, the right side, which is not involved with language and structure.

The right side of the brain relates to non verbal, abstract issues and relates more to our feelings than our words. Although the hemispheres are not quite so black and white in their respective attitudes of form and abstraction, the functional relationship remains. Everything we do utilizes both hemispheres at the same time. There is no left or right brain activity separate from the other. However, there is a dominance or preference of one side over the other depending upon the function. This is what we are concerned with here. In applied kinesiology we test with singing and counting to determine the functional status of a reflex or system with respect to right and left brain activity. Many techniques have been developed around these principles. Certainly the right brain pathways control to a large extent the functions of the left side of

brain relates to abstract thought, intuition, artistic talents, creativity and our spatial intelligence. When we feel who we are, we concentrate at our heart/thymus/chest area. This is the area we point to when we are talking about ourselves. It is well known in all cultures that the human heart has a special if not primary function to play in the physiology, psychology and theology of humankind. It is described in poetic, religious, artistic, and emotional/feeling terms (right brain). The heart is located in the left side of the mediastinum which would put it opposite the right side of the brain. The thymus gland as the center of the immune system has been studied in its relationship to feelings, love, emotions, the spirit and so on, which have been shown to effect immune function. Therefore, we could say that the chest area could correctly be called the location of the right brain 'sense.' We will see shortly that this is quite appropriate in application.

In my research into the right brain pattern I found that there is a connection between the chest area and the palms of the hands. Many energetic healing systems also make this connection. If you place either palm over the chest area and hum or sing it should generate weakness with a therapy localization to the opposite palm. No other area of the body seems to do this. Blowing on the palm, rubbing the palm or any other stimulation doesn't cause this reaction. The same holds true for rubbing or tapping the sternum. Humming with the fingertips on the chest has no effect. It has to be with the palm and the non dominant palm is more sensitive than the dominant palm. This makes sense, because in most people the non dominant hand is on the left and therefore related to the right brain. However, in left handed individuals, the right hand is the one to use. In left handers the right ear should still be dominant, but the hands switch when it comes to activating the right brain pattern.

Another interesting observation is that after placing the non dominant palm over the sternum and humming or singing, there will be a positive therapy localization (TL) over the entire anterior rib cage. This will not be the case with the dominant palm. This is how you would determine which hand was dominant in someone who was ambidextrous. This observation is only seen **prior** to treatment and if there is a right brain pattern to open. **In order to see if there is a right brain pattern involved with any weakness in the body (weak muscle, positive TL, allergen, affirmation, etc.), simply place the non dominant palm over the anterior rib cage and have the patient hum or sing. If it strengthens the weakness, then there is need for the right brain balancing technique.**

right brain pathway needs to be balanced at this time there will be a generalized weakness in all muscles of the body except for those muscles related to the area of distortion that is involved.

Treatment of these patterns will not relate to the Governing Vessel meridian as in the left brain/language pattern.[3] This time the Conception Vessel in involved. Contacting CV 24 should temporarily neutralize the generalized weakness. There are several treatment options.

1. Find the area of the body that neutralizes the generalized weakness and make appropriate corrections to this area. The spine is not always involved as in the left brain/Governing Vessel pathway. It might be involved, but not necessarily.
2. Find a point along the Conception Vessel that neutralizes the generalized weakness and have the patient hold a contact on this point. This opens up one of the 12 facial set points (the beginning or ending acupuncture points). Find this point and also have the patient hold a contact here or on its corresponding organ neurolymphatic and perform a slight traction on each talus as in the injury recall technique(IRT).[4] This will balance the pattern.
3. There will often be an area of the skin on the cervical spine that will neutralize the generalized weakness.[5] Hold this point and find an area on the left side of the skull that tests weak and **lightly** tap this cranial point.
4. If CV 24 does not neutralize the generalized weakness, then there is a nutritional involvement of some kind. Scan to find what area of the body is involved (the area that neutralizes the weakness) to help in determining what nutrition is needed.

Repeat the procedure by contacting the left asterion and pterion with humming and then placing the non dominant hand over the mid sternum and humming. If it brings up another weakness, then treat as above.

side has a more integrative function. The left hand is as important as the right hand in a right handed individual. It just has a different function.

We spend much of our time in our senses. In fact, most of human experience is sense related. The nervous system is receptor based and is dependent upon sensory input to maintain its central tone. As a result, it follows that most of our strengths and weakness can be found through an investigation of our senses. As we move through the experiences that we encounter in life we use our senses to not only interact with our environment, but to also hide from the stressful aspects of life. The way we hide, become invisible or better said, adapt, to stresses and traumas is by using the senses in a preferentially programmed way. In other words, we selectively become deaf, blind, numb or non feeling to parts of ourselves. When that happens in our awareness, it happens in our nervous system through our senses. This occurs in several ways. First, we learn to favor one side of the body over the other. This allows us to hear, see or feel things from one perspective. We can then delegate to the non dominant side those uncomfortable messages, keeping them away from our ego awareness. In the case of hearing we have learned that the right ear should be the lead ear except in cases of deafness or brain injury. Left ear dominance is an adaptation away from the sounds or messages of pain and stress. The other senses however, do not show as clear a definition as to what is the neurologically appropriate dominance. The other senses will be investigated according to how each individual has adapted, with no judgement being made as to it being right or wrong.

Secondly, we adapt through changing the function of the sense itself. Dr Tomatis,[6] the French ear surgeon who developed the concept of ear dominance, states that the high sound frequencies are the first to disappear when the person is under prolonged stress. The inability to register certain sounds or frequencies is an adaptation to stress and trauma. I believe this is also one contributing factor to the many eye adaptations that people develop. We begin to change how the eye works to accommodate to our view of the world. Obviously there are many other factors involved, but we must not ignore the effect that unresolved stresses and traumas have on our very sensitive nervous systems.

Balancing the adaptations in vision, smell, taste and touch require that the left and right hemisphere patterns be clear first. Once both of those pathways are

then that sense needs investigating. Have the patient hum or speak while contacting the active area to see which brain area is involved. The right brain is involved if humming strengthens the reflex, so activate the sense on the left side of the body (left eye, left nostril, left tongue, or touch the left side of the body). The left brain is involved if speaking strengthens the indicator, so you would activate the right side.

Balancing Sensory Dominance

Activate the sense as indicated below and then treat.

1. Place the patient's fingertips around the navel. The palm should not touch, only the fingertips. If this area therapy localizes, then there is one area on the body that if touched by the patient's hand will cause a generalized weakness on muscle testing. The doctor can scan the side of the body involved (indicated by whether the left or right brain activity neutralizes the navel indicator-see above). The doctor can test for the area of weakness, but the patient must touch the area with their own fingers to activate the generalized weakness. All that is necessary now is to treat. Treatment options include all those previously indicated for the left brain pattern. These include adjusting the area of spinal involvement; using IRT with a GV point and one of the facial set points; holding an active area of skin on the neck and tapping the active point on the left side of the skull.
2. Test the area in the lower center of the forehead in what is considered the third eye area, 1-2 inches above the glabella. If this area has a positive TL then there is an adaptation in vision. Activation of this path is quite easy. First determine which eye is dominant. If you do not know how to do this, two methods are included at the end of the paper. It is easiest to determine the eye based on whether humming or speaking strengthens the forehead indicator. Open the right eye and close the left eye if speaking strengthens and vice versa. Then him/her them look up into the mid forehead with the open, non dominant eye. This will activate the circuit. If you weren't sure which eye was dominant and nothing happened, then try the other eye. Treat with any of the left brain pattern treatments.

the tongue. If nothing happens, then change to a different flavor and place it on the other side of the tongue. You can also determine the active side by the humming/speaking test. Activate the left side of the tongue if humming strengthens the indicator and vice versa. Treat with any of the left brain pattern treatments.

Repeat this procedure until these four areas no longer TL. **First do the right brain pattern, then the left brain pattern and then activate one of the senses as indicated.** Finish with the appropriate treatment. It is quite easy once the patterns are learned.

Observations

In the previous paper, *Balancing Internal Acoustics*, the observation was made that once the left brain pattern has been balanced, that touching the left asterion and talking or intentionally thinking something would cause weakness in any strong test muscle. This weakness was determined to be an indicator of stressing the system rather than a need for treatment. The right ear/asterion is the pathway to the language centers of the left brain. Therefore, when we contact the left asterion and perform a language function, speaking or intentionally thinking, it causes distortion in the nervous system. This results in weakness of a previously strong test muscle. This observation and the three to follow probably won't show up in the clear on a patient. It may be necessary to apply the procedures discussed later in this paper and give them several treatments before these principles are demonstrable. Most people have enough distortion or adaptation in their hemispheric balance, that they are not clear enough at first to reflect this pattern.

The next step is to add a contact to the left pterion which makes the test more sensitive. Now, with both contacts (asterion and pterion), weakness is generated with hearing someone speak or quietly thinking something. In other words, it isn't necessary to intentionally form words in the mind or to speak out loud. It is enough to allow the mind to quietly think something or hear words spoken.

Balancing Both Hemispheres Together

The observations from the previous section about the asterions and pterions show these areas to be very special. If the left asterion/pterion TL weakens with speech and the right asterion/pterion TL weakens with humming, then it is necessary to balance both hemispheres at the same time. The following two steps will activate this pattern.

1. Hold contacts on both asterions and pterions.
2. Have the patient silently mouth a word and then have them hum. This simple procedure will cause global weakness with muscle testing if there is a pattern to open.

Treatment is different from the previous patterns. In this case the generalized weakness can be neutralized by a TL to both CV 24 and GV 27 at the same time. Since both sides of the brain were activated at the same time, both midline meridians are involved. In Chinese medicine and Qi-Gong therapies, placing the tongue at the roof of the mouth is supposed to connect the Central and Governing Vessels together. Have the patient contact CV 24 and GV 27 which will neutralize the generalized weakness. Then have him/her place his/her tongue against the roof of the mouth. This should weaken any strong indicator muscle. Then perform a slight inferior traction on both talus bones as in the injury recall technique. This will clear the pattern. It is also possible to fix what you find, tap an active reflex on the side of the head that relates to an active TL on the skin of the neck, or apply appropriate nutritional substances.

ier to balance the left brain patterns first and then proceed to the right brain patterns. Then if you try to open the right brain pattern and nothing happens, you can continue on and do the left brain sequence and investigate the other senses. The right and then left brain patterns need to be activated in that order to check the senses. Finally, check to see if both sides need to be opened simultaneously and make those corrections. The sequence of corrections can occur in any order and after correcting one pattern you will need to recheck all the others to see if it opened up the need for further corrections.

Take any weak TL, muscle or other indicator and test to see if either the left or right brain patterns will strengthen the indicator. Place the non dominant hand on the chest and hum for the right brain pattern or close the right tragus and have the patient speak for the left brain pattern. Usually you will find both to be involved. This is also a good way to see if an area that you have already worked on still has adaptation that needs balancing. These techniques provide a quick and highly effective method of balancing a lot of our patient's complaints. It removes the adaptation between the left and right hemispheres, the male/female parts of ourselves, the Governing and Conception vessels which are the yang/yin midline meridians. This adaptation is quite powerful, and is able to mask most problems a patient has. We may be able to see parts of their condition, but as long as there is left/right imbalance, we cannot see it all. Once the adaptation has been removed, there is still work to do, but now we are dealing more directly with the problems that a person is facing. Now our investigative skills come into play to understand the cause of the patient's condition. I hope you will find that the use of these techniques will provide a quick and easy way to get to the core of a patient's problems while solving many of them along the way.

3. Make any appropriate treatments according to what you find. You can also find a point along the Conception Vessel that neutralizes the weakness and then a facial set point will become active. Hold those two points and use IRT. Check nutrition if indicated (no CV points).

4. Repeat these steps until clear.

Left Brain Procedure (Closing the right tragus with speech will strengthen a weak indicator)

1. Hold a TL to the **right** asterion and pterion throughout all three steps.

2. Gently move the **right** temporal into internal and external rotation. This can be done in either order and is a **gentle** contact to cause a slight movement of the temporal in each direction.

3. Close the right tragus and have patient say his/her name (or any other word) out loud.

4. Open the tragus and have the patient mouth his/her name (or word) without making any sound. (Both ears open)

5. Adjust the area of the spine that neutralizes the generalized weakness that occurs from the above four steps. You can also find and TL a GV point that neutralizes the generalize weakness and then find and TL one of the facial set points. Correct with IRT. Check nutrition if indicated.

6. Repeat the procedure until clear.

Integrated Pattern for the Senses

When the left and right brain techniques are clear, the following pattern may be available.

1. Contact the **left** asterion and pterion at the same. Have the patient briefly hum or sing.

2. Then remove the contacts and have the patient place his/her non dominant hand over their anterior rib cage and have them hum or sing. Move his/her palm to a different location if he/she had his/her palm on his/her chest for step one.

word) without making any sound. (Both ears open)

7. Test the following four areas for the senses. If humming strengthens the test area, activate the sense on the left side of the body; and if speaking strengthens the indicator, activate the sense on the right side of the body.

   A. Place the patient's fingertips around the navel to evaluate the sense of touch. If this spot therapy localizes, then there is one area on the body that if touched by the patient's hand will cause a generalized weakness of muscles tested. (Have the patient hum or speak to determine side.)

   B. If the area in the lower center of the forehead in what is considered the third eye has a positive TL then there is an adaptation to clear in vision. Have the patient close the dominant eye and then look up into the forehead with the open, non dominant eye. This will activate the circuit.

   C. If there is a positive TL at the glabella, then olfaction is involved. Simply close one nostril and have the patient sniff. Try the other nostril if the first one doesn't open the circuit.

   D. If there is a positive TL with the patient's fingertips around the mouth, then the sense of taste is involved. Have some sugar, salt, mint or other flavor to place on one side of the tongue. If nothing happens, change to a different flavor and place it on the other side of the tongue.

   Treat according to one of the left brain pathway choices.

Balancing Both Hemispheres Simultaneously

When the left and right brain pathways are clear the following may be available for correction.

1. Hold contacts on both asterions and pterions.
2. Have the patient silently mouth a word and then hum a few notes.
3. Treat with patient TL to CV 24 and GV 27 and patients tongue touching

them some time to rest before they leave your office.

How to find the dominant eye

This step is unnecessary if you have the patient hum or talk while holding the weak TL at the location 1-2 inches above the glabella. The eye to keep open is the one opposite the brain activity.

- Have the patient stand across the room from you and ask him/her to point at your nose. If you look at his/her finger, it will be pointing over the eye that he/she is using to sight with, his/her dominant eye.

If he/she is supine, have him/her place one hand over the other so that there is a small space between the thumb and index finger webs of the two hands. Have the patient outstretch his/her arms and look through the hole created by the hands and sight onto a spot on the ceiling. Then cover one of his/her eyes and ask if the place he/she was looking at is still there. Then cover the other eye and ask the same question. The object will disappear when you cover the dominant eye and it will remain when you cover the non dominant eye. Often you will find that the patient will close one eye to sight through the hole and this will tell you quickly which eye is preferred or dominant – the one that they are using.

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Abstract

The purpose of this paper is to define a lesion of the sacroiliac joint and propose a protocol to help with its correction.

Introduction

Several years ago, I was wondering why some patients did better when they were blocked for a Category II and others seemed to do as well with side posture or drop table work. I reasoned that with side posture and drop table work, the rotation would be corrected, but the blocking would introduce a lateral to medial component to the correction. I started looking for patients with a Category II that would challenge positive for a vector that was directly lateral to medial as well as the rotational factor.

I found that not all Category II lesions had this lateral to medial vector, but there was a percentage that did. I also found that this lateral to medial challenge was positive on some patients that did not have a Category II. This lead me to believe that this was a totally separate entity that could be present with the Category II or occur by itself.

Discussion

This lesion will show a positive challenge in that a force from lateral to medial will weaken a strong indicator muscle. This challenge can be a normal challenge or a sustained challenge. When the lesion is severe, it will cause weakness of the ipsilateral hamstring muscle (this does not happen all of the time). If this is the case, therapy localization of the involved sacroiliac joint by the patient will result in strengthening of the hamstring muscle test. Therapy localization of the lesion will never cause a strong indicator muscle to weaken. Two handed therapy localization of the lesion will not cause weakening of a strong indicator muscle. It can only be found by therapy localization if it is causing weakness of the hamstring on the same side. It can always be found by the use of a challenge from lateral to medial on the involved sacroiliac joint and its affect on a strong indicator muscle. Neurological disorganization can cause the challenge to be positive on the wrong side. Suspect this if the patient wonders why you are working on one side and the other side is where

The correction of this problem is accomplished in several ways. Blocking the involved sacroiliac joint at the PSIS, drop table with a force from lateral to medial (I'm not real gentle with this), and a respiratory adjustment will work with pressure from lateral to medial during the respiration that negated the positive challenge. What really complicates this is the fact that you can have the patient sit up on the table after a perfect correction and the correction will be lost by getting up from the table. I have demonstrated this time after time with the same results. If the patient is in the prone position while being adjusted, he must get up on hands and knees and get off the end of the table. The Doctor must immediately apply a sacroiliac belt to the patients pelvis before he has a chance to sit or twist. The patient is seen three times a week until the correction has been established. At times, the patient will encounter pain as a result of pressure from the belt on the sacroiliac joint. If this occurs, challenge the ilium directly superior or directly inferior and adjust using a drop table according to the results of the challenge. This will immediately remove the pain as a result of the sacroiliac belt pressure. When the joint is properly aligned, the pressure of the belt feels good to the patient.

The procedure is to evaluate the patient in the normal accepted manor. I evaluate the Gamma II muscles as presented by Dr. John Bandy. I also look at the quadratus lumborum, multifidus, and iliocostalis. The abdominals, gluteus maximus, and sacrospinalis are evaluated. Muscles that cross the sacroiliac joint like the psoas, piriformis, and gluteus maximus are very important The primary muscle is determined as presented by Dr. Robert Rakowski.[1] The primary muscle is corrected using the five factors of the interavertebral foramen as described in Dr. Walther's book, "Applied Kinesiology Synopsis."[2] After correction of the primary muscle, any residual muscle weakness is addressed. The pelvis is evaluated for Category II, Category I, and sacral faults. Then I evaluate the sacroiliac joint for this pelvic lesion by applying lateral to medial pressure directed into the sacroiliac joint. If this causes the weakening of a strong indicator muscle, I approximate the joint using the drop table with a force directed in the direction that caused the positive challenge. A sacroiliac belt; (I prefer the Velcro closure of the Saunders S.I. Belt), is positioned 1 1/2 to 2 inches below the iliac crest as soon as the patient gets off the table. The patient wears the belt 24 hours a day and takes it off only to shower or use the toilet until the test is negative for this lesion. I usually see the patient three

muscle. Correction involves the use of a sacroiliac belt for approximately two weeks while the joint is adjusted medially using a drop table at a frequency of three times per week. I have found this procedure to be of value in a fairly high percentage of patients presenting with hip and sometimes leg pain.

Summary of Procedures

1. Check the low back muscles as indicated above.
2. Find the primary muscle using Dr. Rakowski's protocol.
3. Fix the primary muscle using the five factors of the intervertebral foramen.
4. Recheck all of the weak muscles found earlier and fix any that were not fixed by the primary muscle technique.
5. Check for category I, category II, and sacral faults.
6. Apply lateral to medial pressure on each sacroiliac joint and test a strong indicator muscle for weakness.
7. If weakness occurs, adjust the joint back together using the drop table or a respiratory adjustment.
8. Have the patient get up carefully from the table and apply a sacroiliac belt two inches below the crest of the ilium.
9. Tell the patient to wear the belt 24 hours a day and to remove it only to shower or use the toilette.
10. See the patient three times per week and adjust the joint back together each visit. When the test is negative, tell the patient to wear the belt for one more week.

Abstract

Favorable clinical results are reported through the treatment of the tendino-muscular meridian system, as described by Dale Anderson. A slight modification is proposed.

Comment

In 1990, Dr. Dale Anderson wrote a paper on the treatment of the tendino-muscular meridian system using applied kinesiology techniques, entitled "Treatment of Tendino-Muscular Meridians and Its Effect on Skeletal and Smooth Muscle Tissue." In Traditional Chinese Medicine (TCM), these meridians are generally regarded as being more vulnerable to perturbation from environmental imbalances, and therefore to the introduction of dysfunction than the main meridians. As such, they are often the site of dysfunction, leading to pain. Anderson described a method of identifying which of these meridians might be the source of pain. This author has found Anderson's technique to be remarkably effective when the patient shows the need for it, which is rather often. If the reader is unfamiliar with Anderson's paper, it is well worth reviewing. The tool that the reader gains will be a useful addition.

This author has noticed a minor modification that helps to identify a subtle indicator of switching which, when corrected, increases the likelihood that application of the procedure will be effective. In the protocol described by Anderson, the involved TMM is identified by finding the Ha-Sea point that abolishes the TL to the convergence point. Once this Ha-Sea point has been identified, the patient TLs each end of the TMM to see which end blocks the TL to the Ha-Sea point. In the original description, this effect could be observed either at the proximal or at the distal end. This author has observed that in the majority of cases, the distal end of the TMM (the tsing point) will be the one that blocks the Ha-Sea point TL. It has been observed that in the infrequent event that the proximal end instead TLs to block the Ha-Sea point TL, the patient is switched. Identification and correction of a switching pattern will alter the pattern such that the distal point will TL to block the Ha-Sea point TL. Once this has been accomplished, the correction described by Anderson is more likely to be effective.

Comments on Published Papers

Procedure

Samuel F. Yanuck, D.C., F.I.A.C.A.

Abstract

A corrective procedure for reducing or eliminating the symptoms of vestibular dysfunction is described. Sample cases are given.

Introduction

A variety of problems arising from the vestibular apparatus of the ear yield symptoms of dizziness or vertigo.[1,2,3] Such symptoms may lead to a diagnosis of Meniere's syndrome or vertigo. Reestablishing normal function of either the vestibular apparatus itself or the brain stem nuclei responsible for integration of vestibular signals yields favorable clinical outcomes in reducing the symptoms of vestibular problems.

Discussion

The technique is quite simple. It is most often applied bilaterally, though as always one must check for the need for treatment before applying it. In general, if the patient does not show a need for correction bilaterally, assume there is some level of neurologic disorganization present, unless the history gives a clear impression of why the problem might be unilateral (such as trauma to one side of the head, or history of a mastoidectomy). It is assumed for the purposes of this discussion that the patient has undergone a thorough neurologic examination, and that pathologic causes of his/her symptoms such as acoustic neuroma and other pathologies have been ruled out.

The following description is for the right side. It is assumed that the patient has been treated preliminarily in order to achieve a level of neurologic organization that will allow for integration of the corrective procedure by the patient's system. In applied kinesiology vernacular, the patient should be unswitched before using this procedure. The patient touches (TLs) the right TW-23 acupuncture point while simultaneously touching the right sartorius neurolymphatic (NL) reflex. If either one of these points individually TLs,

Immediately test a strong indicator muscle. If the rightward head rotation creates weakness, have the patient repeat the maneuver, and immediately following the rotation of the head, perform Injury Recall Technique[4] by tugging lightly on the right foot caudalward (as if to open the ankle mortise and lengthen the leg). Check for the same finding on the left.

For patients with vestibular problems, the function of the vestibular system can be generally improved by reducing both adrenal stress and digestive dysfunction. This can be done effectively by desensitizing the sartorius NL and digestive NLs using visceral challenge technique as described by Schmitt.[5] In brief, simply have the patient TL the NL and see if the TL can be made positive by the addition of oral insalivation of various challenge substances, such as sugar, sodium, potassium, caffeine, Crisco, lard, histidine, or foods to which the patient may be allergic. Once the overstimulation of the adrenals has been reduced by visceral challenge to the sartorius NL, the NL may now TL to strengthen a weak muscle. At that point, it is appropriate to stimulate the NL in the usual way. It is preferable not to do this before the desensitization is performed. The same effect may be observed with other NLs.

It is useful to note that for the purposes of testing the effect of the rightward head turn, one should not use a right sided extensor muscle, because rotation of the head to the right will strengthen all right sided extensors via the tonic labyrinthine mechanism, so you will not find weakness.[6,7] Use a right sided flexor, a left sided extensor, or test more than one muscle, so you can account for the above effect.

The usefulness of this technique was first observed on a 49 year old female patient with a years long standing diagnosis of Meniere's disease. The patient also suffers from Hereditary Multiple Exostoses (HME), a disease in which benign bone growths develop as extrusions from normal bone. It had been suggested by her otologist that her Meniere's may have been a consequence of bone growths in her ear, though this had not been established. The patient was unable to put her head into a dependent position without experiencing significant vertigo, which would eventually resolve upon bringing her head into an upright position. After correction was administered once, she was free of the problem for six months. She has continued in this pattern, needing repetition of correction once every six months or so.

sufficiently improved that problems associated with imbalances in vestibular function itself is reduced. This would take place either at the vestibular apparatus itself, at synaptic relay points of the interneurons that carry vestibular inputs, or at the level of the brainstem nuclei responsible for the integration of the signals. The most likely afferent targets of vestibular inputs at which this effect might take place are the thalamus and the reticular formation. Alteration of intestinal function has been observed clinically to impact the symptoms of vestibular dysfunction. Pain afferents from digestive sources rise to the interlaminar nuclei of the thalamus. The same pain afferents rise to the reticular formation.

It is useful to note that a technique exists in allopathic medicine in which the patient is moved briskly and sharply from a seated position in a lateralward direction to a laying position, and returned upright. This is virtually a throwing maneuver, sometimes combined with holding the head in a dependent position, intended to dislodge any calcium or other crystals that might have lodged in the otoliths of the vestibular mechanism. Note that while the above described correction does involve rapid rotation of the head, it is this author's observation that for the supine patient, rapid rotation of the head by itself fails to achieve any noticeable result, while the above mentioned correction gives significant relief. Accordingly, it is this author's impression that the mechanism of action is not likely to be attributable to the freeing of mineral deposits from the otoliths.

Conclusion

The above described procedure provides significant relief for most patients suffering from vestibular dysfunction. Its successful application is another example of the usefulness of a functional approach to problems that are non-pathologic in nature.

4. Repeat Step #3 with the addition of taste receptor stimulation with caffeine (put caffeine on the tongue). Repeat correction if needed.
5. Have the patient maintain two hand TL and the oral caffeine. This should no longer weaken the patient. The patient now rotates the head rapidly to the right. If this maneuver weakens a strong indicator, have the patient rotate the head rapidly to the right, and immediately perform IRT to the right foot.
6. Reinforce correction by performing Visceral Challenge Technique on the sartorius NL.
7. Recheck on subsequent visits. Repeat if indicated.

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