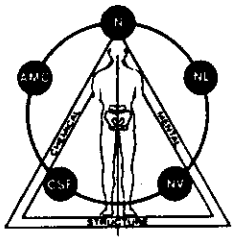

PROCEEDINGS
OF THE
WINTER MEETING OF THE
INTERNATIONAL COLLEGE OF APPLIED KINESIOLOGY - U.S.A.

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ST. JOHN, U.S. VIRGIN ISLANDS

A MESSAGE FROM THE CHAIRMAN

Dr. Philip Maffetone
Chairman, ICAK-U.S.A.

Congratulations to those who have shared their observations with the membership. Some authors, unfortunately, were not able to meet the deadline or use proper format. Hopefully, we will see their fine papers, and others, in the next edition.

It is imperative that our applied kinesiology profession upgrade the quality of the work we find so clinically applicable and fascinating. We are judged on items such as these from within and outside the ICAK. True, this collection of reports from our members is intended only for our membership. But as often happens, others outside the College read and comment on the material, formulating opinions on what they read. Many times we are complimented on our originality and uniqueness, but at times we are appraised negatively. We must demonstrate, as professionals, our clinical objectivity and openness without sacrificing creativity.

While that is a difficult task, it is also the responsibility we take as members of an organization which is at the forefront of an emerging natural health system which could ultimately change our country's well-being forever.

Introduction

This thirty-fourth collection of papers from members of the International College of Applied Kinesiology-U.S.A. contains 14 papers by 7 authors. The papers will be presented by the authors to the general membership at the Winter Meeting of ICAK-U.S.A. in St. John, U.S. Virgin Islands, January 6-8, 1993. 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 Winter 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. The third section 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.

The Proceedings of the ICAK-U.S.A. are published twice annually, prior to the summer and winter meetings. 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. The only exceptions are papers which are *Commentaries* or *Critical Reviews*. (See explanation listed below.)

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 below.)

(Instructions Cont.)

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 art work 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. Photographs must be original black-and-white glossy prints.

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) Each page of the paper should be identified by an **abbreviated** title, the author's **last** name and a page number, all centered at the top of the paper with a 3/4 inch margin.

9) The publication standards for the health care 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.

Hypotheses - 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 2 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.

(Instructions Cont.)

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).

10) The body of the article should be single-spaced on plain paper. No papers typed on office letterhead will be accepted. The manuscript must be an original with dark print, on one side of the paper only, to ensure adequate reproduction in *The Proceedings of the ICAK-U.S.A.* The margins on both sides o the paper must be a minimum of 3/4 inch, and the top and bottom margins must be a minimum of 3/4 inch when relating to 8-1/2 inch x 11 inch letter-size paper. European authors should make note of the copy height of the American standard 11 inch paper size, which relates to approximately 28 cm.

Please reread, in its entirety, the Instructions to Authors to insure that your paper will be suitable for publication.

Manuscripts that do not meet the above qualifications will be returned to the author, with recommendations for bringing the paper under ICAK-U.S.A. guidelines for possible future publication.

The articles to be published should be sent to the Publications Committee in triplicate (the original and two copies), c/o ICAK-U.S.A., P.O. Box 905, Lawrence, KS 66044-0905, (913) 542-1801.

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 expanding 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

X

* 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.
Status Statement will be submitted to the International Counil for review.

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* Diplomate

** Material in this paper does not conform with the ICAK Status Statement

DIVISION I - INFORMATIVE PAPERS

July 1992

SUBJET : The Temporo-Mandibular Joint involvement in sports events.

by: Gilles G. Brisson D.C.

ABSTRACT.

A forcefull hypercontraction of the T.M.J. causing a malocclusion interferes with the mechanics of the movement and the performance during an activity involving the dominance of one side of the body.

INTRODUCTION

During the examination and treatment for various injuries of several of the throwers on the Canadian Track and Field team, as well as athletes participating in other sports involving the utilisation of an implement, I found that even after having stabilised the different musculo-skeletal components, some of the athletes seemed to develop the same erroneous patterns during the execution of their movement, which eventually brought back the pain.

Knowing the importance of the Temporo-Mandibular Joint, and its influence upon the biomechanics of the body, this element was evaluated with relation to the execution of the whole movement.

It is evident that several other components may influence poor biomechanics during the execution of a movement. The case which I am about to present is just one of these elements.

DISCUSSION

Before starting any discussion about the T.M.J. involvement, it is important, for the purpose of this study to define a unilateral event or sport.

A unilateral activity or sport could be defined as: any activity involving the dominance of one side of the body taking part in the major execution of the movement; e.g. throwing events, or racket sports.

In this particular study, I have decided to analyse the example of javelin throwing. It is possible to apply the results of this study to any other sport where an implement is utilized, and or power is needed to execute any phase of the movement. e.g: tennis, golf, hockey, etc.

T.M.J. vs. Sports events - Gilles G. Brisson D.C.

First of all, it is very important to look at the movement in its entirety, as well as the different transfers of force during the execution of the throwing action.

Technique of the Javelin Throw:

For the purpose of the description we will used a right handed person . (7)
1° - APPROACH RUN.

2° - The FRONT LEG blocks (heel-toe movement) and initiates the transfer of velocity from the run to the leg and thigh which is added to the power generated by the LEG and THIGH.

3° - Forward acceleration of the right hip (pelvic girdle) adding to the power already accumulated, while the right foot drags on the ground in order to control this action. The pelvic girdle should not at any time sag posteriorly during this action .

4° - Transfer of accumulated velocity and power to the trunk , which begins accelerating via forward rotation .

5° - Acceleration of the right shoulder (scapular belt) commences, while the actions on the ground (foot dragging,left foot blocking) continue, as well as the forward rotation of the right hip. This transfer of acceleration from the trunk to the right shoulder further amplifies the velocity and power which will eventually be transfered to the javelin itself.

6° - Acceleration of the forearm and release of the javelin : The ground motions are maintained, while the right hip has rotated forward to the point of being at the same level as the left hip . Meanwhile, the right shoulder continues its forward rotation until it catches up with the left shoulder and in fact passes it . At the same time the right elbow begins its flexion . The elbow pivots slightly and continues moving forward toward the direction of the throw , while the forearm begin accelerating and generating more power through vigorous extension.

7° - The javelin is released via the vigorous flexion of the wrist and the extension of the fingers outwards . At this moment, all velocity and power which as been generated and conserved is transfered directly to the implement . If all movements in these preceeding phases were executed in the axis of the throw ,with no biomechanical errors or deceleration , then the accumulation of velocity and power should have been conserved right up until the moment of release .

The summation of all forces generated in the preparatory phase of the movement, if correctly applied to the implement to be thrown, give it the maximum propulsion . Any changes or imbalances in the musculo-skeletal structure such as poor body positioning, or contraction of the wrong muscles will bring about either a loss of power, or an incorrect transfer of force towards another area of the body. Such errors directly affect the optimal execution of the movement.

During observation and discussion with athletes on the National Throws team in track and field, as well as the National Throws Co-ordinator(8), it was noted that in the final phase of the throwing action, especially from the moment the athlete initiates the release movement at the scapular belt, followed by the transfer of force to the implement, and finally the execution of the throw itself, many athletes had a tendency to clench their teeth in an ultimate effort to bring more power into the throw. This contraction of the T.M.J. is not an addition of power, but rather an inhibitor to the transfer of the force accumulated in the preparatory phase. We can calculate this as a loss of power, which, instead of being utilized to throw the implement, is lost in the jaw. It was also noticed that this contraction is more accentuated on the side of the body where the implement is held, due to the fact that all forces are directed towards the side where the execution of the movement is to take place.

If you execute this movement repeatedly, (the throwing action)100-150 times every training session, with the same erroneous pattern as explained before, one will develop a unilateral hypercontraction of the temporo-mandibular joint. This results in what we would call a forcible mal-occlusion on that same side, which might not show up upon normal evaluation of the T.M.J. .

This unilateral hypercontraction at the jaw level is a loss of energy (negative) which could be used otherwise (more positively) for the optimal execution of the movement,in such a way as not to alter the balance of the musculo-squelettal system during the last phase of the throw.

This imbalance occurs more in the pelvic and scapular belt area. At the pelvic level, one will notice a lowering of the pelvis accompanied by sagging, with retraction of the buttock muscles. At the shoulder level we will observe the same pattern, meaning a dropping of the whole scapular belt accompanied by retraction of the shoulder joint, and a loss of force by the rotator cuff. This deviation from the normal will displace the center of gravity, thus modifying the whole approach of the throw by changing the body alignment, resulting in a poor transfer of force from the leg to the trunk, trunk to the shoulder, and shoulder to the arm .

The procedure used to verify the interaction of the musculature of the temporo-mandibular joint during the execution of the throwing movement is as follows: Ask the patient to forcefully contract the muscles of the temporo-mandibular joint on the side suspected of "closing mal-occlusion" (normally on the side where the implement is held) and at the same time, test a previously strong indicator muscle which is located on the side where the implement is held (it could be from the shoulder, or even the pelvic area). If a forcible mal-occlusion is present, a weakness in the indicator muscle will appear. If one performs the same procedure on the opposite side, no weakness will be apparent . I must emphasise here that a normal closure of the jaw without forcefull contraction of the muscles involved in the action (masseter, buccinator, temporalis), would not give a positive response regarding the weakness of the strong indicator muscle .

Treatment approach :

The treatment approach for the correction of this forcible mal-occlusion is :

First of all, one must put a tongue depressor between the last two molar teeth on the side which is involved . Normally, the width of two tongue depressors is necessary, in order to anihilate the positive response illicited upon performing the same muscle test as previously described. If you need more than two

tongue depressors to cancel the positive therapy localisation, you might need to seek the help of other professionals to rebalance the mal-occlusion .

The treatment itself, for the stabilisation and the equilibrium of the temporo-mandibular joint is well documented and explained by Doctor George J Goodheart(6), Doctor David S. Walther(3), and Doctor David W. Leaf(1), in their various research papers and lectures.

We must investigate , before carrying out this type of evaluation of the forcible mal-occlusion, any structural imbalances which could influence the temporo-mandibular joint and correct them.

These are:

- -Ankle mortise.
- -Category II-I.
- -Dural sheath involvement
- -Muscle imbalances: especially the Sterno-cleido mastoid , Upper trapezius , Masseter, Buccinator, Temporalis, External and internal Pterygoid.
- -Any muscles related to the action of throwing.
- -Cranial faults.

Thus, it is of utmost importance to properly stabilize all the musculo-squelettal imbalances that you find before evaluating for a forcible mal-occlusion of the temporo-mandibular joint during a specific action (such as javelin throwing as discussed in this paper).

It is quite possible that the athlete may have to perform what we can call "tongue depressor therapy". This means that the athlete will have to practice his throwing action while holding the tongue depressor(s) between his teeth (without clenching) in the back of his mouth, (this being on the side of closing mal-occlusion), until he can consciously perceive the adequate positioning of his jaw. This conscious perception has to become an automatism recorded by the brain as part of the procedure in the execution of the whole throwing action.

Subsequently, when the athlete executes his whole throwing pattern, he/she will be able to feel if there is any closing of the jaw which could disturb the musculo-squelettal balance needed to complete the generation and transfer of maximal force to the throw. In addition, he/she will be able to proceed with the correction of this incorrect gesture through relaxation of the jaw by bringing it to the the neutral position.

It is interesting to go directly onto the practice field , so that we may observe the athlete during his training session, and discuss the different problems which might appear during the execution of the whole movement with him/her and the coach. With this information, plus the knowledge and comprehension of the biomecanics of the throw, we can proceed with the correction of musculo-squelettal imbalances, and have a direct feedback of our intervention . For example, the tongue depressor therapy can be evaluated directly with the athletes while they are performing their throws, followed by the correction of the T.M.J. imbalances, thus enabling us to observe the immediate biomechanical changes .

During the execution of a movement which involves the dominance of one side of the body over the other, as in throwing, we notice that all of the muscles associated with the occlusion of the jaw very often go into hypertension, thus bringing about an imbalance of the Temporo-mandibular joint in the form of a closed mal-occlusion on the dominant side. This problem changes the whole biomecanics of the execution of the movement, resulting in a loss of power .

It is quite possible to find a bilateral hypercontraction of the musculature of the T.M.J. with the sport which sollicites both sides of the body, like gymnastics or weight lifting. The same procedure of examination and treatment is used to alleviate the problem. However, regardless of the fact that you can find a bilateral forcible closed mal-occlusion, it will exist on the side which is more involved than the other, and will correspond to the more prominant side that the person uses in his normal daytime activities .

Ideally, during the action of throwing or any other sporting activities, the jaw should be kept in a neutral position whereas all muscles related to the temporo-mandibular joint should not at any time be in hypercontraction.

CONCLUSION:

It is important throughout the execution of any given movement to not only properly utilise the required components; but also to sollicit them in a precise order.

The repetitive hypercontraction of the musculature of the jaw , causes a forcible mal-occlusion of the T.M.J. leading to a loss of power, as well as negatively affecting certain biomechanical components of the movement.

The evaluation of the Temporo-Mandibular Joint is of prime importance during the examination of an individual who practices a sports activity an order to eliminate any components having a negative influence upon the execution of the movement in question, so that the athlete may develop his full potential.

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A-K. Research Paper
I.C.A.K. Seminar 1993

June 1992

SUBJET SACRO-ILIAC SUPPORT Versus STRUCTURAL STABILISATION and ELIMINATION of MYALGIA.

by Gilles G. Brisson D.C.

ABSTRACT

Belting of the sacro-iliac joint will permit the stabilisation of all the musculo-squelettal structures, thus eliminating different myalgia throughout the body and giving a better muscle utilisation by the elimination of incorrect recrutement.

Reinforcement of the proper muscle related to the S.-I. joint, and the stabilisation of the other muscles related to the pelvis will be necessary, to insure a permanent and strong support to the body structure.

INTRODUCTION

Treating many national and international athletes involved in different sports gave me the opportunity to find numerous injuries which wouldn't be that evident on the normal type of patient. The fact that their bodies are very finely tuned means that their capacity to recuperate seems to be accelerated. Using athletes to verify different therapeutic approaches is very helpfull, because they can give us almost immediate feedback of the body's reaction to the intervention, by the way they feel during the performance / execution of their movement .

These unique experiences with athletes permitted me to apply the acquired knowledge to my regular patients. This research paper is just one of its applications.

DISCUSSION

Many sports or exercises demand the utilisation of the buttock muscles. It seems, however, that they are not properly sollicited, because there is recrutement of, or compensation by, the synergistic muscles such as the sacro-spinalis, the quadratus lumborum, and the gluteus medius. Hypertension of the psoas, and the rectus femoris may also explain this inadequate usage of the buttock muscles.

Single or multiple trauma might be the cause of certain sacro-iliac instabilities. In the example of gymnasts who often fall on their buttocks, or the woman who has recently delivered .a baby, one observes that the pelvis opens like a butterfly and does not return to it's original position.

I quite often find patients with a complete and partial atrophy of the gluteus maximus; this being unilateraly or bilaterally.

People who must repeatedly perform lifting movements while bending their knees, put a great deal of tension on their quadriceps. This will lead the pelvis to move to an anterior position. As a result, the gluteus muscle will not be in such demand, and will start to diminish in size and power. The same principle applies to people who do not push off with their back leg when walking in order to propulse themselves.To determine pelvis instability, many parameters will be used.

1-OBSERVATION

-Gluteus maximus and medius atrophy :unilateral /bilateral.

-Piriformis muscles weakness : bilateral.

-Muscular hypotonicity

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-Lumbar hyperlordosis and shifting of the pelvis anteriorly
-Hypertrophy of the sacrospinalis muscles unilaterally/bilaterally
-Testing the Gluteus maximus -Extention of the thigh (trying to contract the gluteus maximus) The leg and thigh segments move laterally.

2-Palpation

-Pain on the pubic bone.
-Pain at sacro-iliac ligaments.
-Pain in all muscles which are responsible for pelvic support and for the stabilisation of the spine anteriorly and posteriorly.
-The pain is alleviated after performing the strain counter-strain technique, but comes back in a matter of minutes by itself, or if the patient changes positions.

3-MUSCLE TESTING.

-Weakness of the gluteus medius bilaterally.
-Weakness of the gluteus maximus tested normally, or 2-3 times in a row (be careful when you bring the muscle to the testing position, that the thigh segment doesn't go laterally- even slightly. Watch carefully for recrutement of the hamstring and gluteus medius).
-Adductor weakness- bilaterally, supine and/or sitting.
-Patient prone: a strong muscle indicator will become weak upon manuel and constant pressure at the sacro-iliac joint.
-Muscle testing verification for fascia involvement of the Psoas, Quadratus lumborum, Rectus femoris, Piriformis and adductor muscles.

4- OTHERS

-Recurring subluxation, fixations, imbrication, disc compression.

-Sacral and sacro-coccyx instability .

-The patient complains of pain when he/she is maintaining the same position for a while; sitting, standing or lying down.

-The patient has been diagnosed as having pubalgia. This problem has been found frequently in soccer players and in woman in their late phase of pregnancy or post-delivery.

If you find in your examination any of these parameters you should suspect an instability of the pelvis, due to hyperlaxity of the pelvic ligaments.

The best way to stabilize the pelvis is by the use of a belt.

PROCEDURE OF A SACRO-ILIAC SUPPORT AND STABILISATION

A belt of 1 1/2 inches, or a thoracic band support should be utilized.

It should be worn around the hips at the level of the depression, and wrap around the buttock muscles half way between the origin and insertion .

The support should be tightened until the pain on the pubic bone disappears, and this, in the three differents positions: lying, sitting, and standing. If certain signs or symptoms appear when the patient is asleep, or in the morning before getting up, the support should be worn during the night in addition to the entire day. This will give the ligaments of the sacro-iliac area time to heal and to regain their original strength.

Length of time to wear the support:

-23 1/2 hours a day for 10 days . -If any symptoms appear at night or in the morning when the patient is still in bed or just getting out of bed.

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-During the entire day for the following 15 days.
-While the patient is wearing the support to stabilize the pelvis, it is necessary to get the musculo-sqelettal relationship functioning properly once again.

The muscles to be evaluated are :

RECTUS FEMORIS , ADDUCTORS , HAMSTRINGS.,
PSOAS , QUADRATUS LUMBORUM , PIRIFORMIS
These.muscles should be investigated for :
STRAIN COUNTERSTRAIN, FASCIAL FLUSH, REACTIVE MUSCLE PATTERN.
Specific reinforcement exercises have to be performed for the GLUTEUS MAXIMUS, the GLUTEUS MEDIUS, PIRIFORMIS, and possibly the ABDOMINALS.

The structures to be evaluated and corrected are:

Category II
Categoryl
Sacral-wobble inspiration/expiration
Sacro-coccyx
Disc compression
Facet involvement
Subluxation
Sacro-occiput relationship
Associated cranial faults
Gait and synchronisation

The procedure name "ligament interlink" as to be perform on the sacro-iliac ligaments.

Sacro-iliac ligament versus costal cartilage.

It is very important to rebalance the different types of affectations which you might find on the above-mentioned muscles and osseus stuctures. The sacro-iliac support will only help to relieve the symptoms and signs which you find in your examination.

Of course, the stabilisation of the sacro-iliac joint by means of the support will permit the ligaments to heal only if proper supplementation is given, and if the instructions as to how to wear the support are followed.

However, the mere fact that the patient is wearing the belt will not suffice, because as soon as he or she takes off the support, the same muscle pattern will start to develop again, and the same, or another problem will appear.

Different types of exercises may be used to get the Gluteus maximus muscle back into shape. In the first place, one has to evaluate the type of patient he is dealing with, whether it be an athlete whose sport requires force, resistance, and/or endurance, or a person who has to work long hours standing up or sitting down. One must then evaluate the degree of weakness associated with the atrophy of the muscle. Is it complete atrophy, or only a section of the muscle which is weak ?

There exists a wide range of specific exercises from which to choose; from isometric to isotonic, from power to resistance-type exercises, from dynamic to more passive-like exercises. The type of exercise which you will choose for your patient has to be appropriate to the type of work or the sport he is involved in.

When the sacro-iliac joint is stabilised by the reinforcement of the ligaments and muscles, the dural sheath, which, as you know, attaches at the sacral level will be supported even more, and will be able to work the way it was designed to.

Some have critisized that belting the pelvis will interfere with the normal and crucial sacro-coccygeal pump. Since the procedure is temporary, it should not cause any disturbance to the pumping effect, but rather regularize a wobbling movement of the sacrum due to the instability of the ligaments.

Of course, the tension used to belt the patient should not be such that it strangles the pelvis .

NUTRITION

As for any weakness/instability of joints due to poor ligament support, manganese and B12 / LIGAPLEX 1 should be evaluated as a supplementation to help the healing of these ligaments. Very often patients who exibit ligament laxities have been under different kinds of stress, so adrenal evaluation should be carried out. More times than not, we find an involvement of these glands related to the ligament weaknesses.

CONCLUSION

The author could have included all of the statistics that he has accumulated to classify the types of problems which have been alleviated and cured by the stabilisation of the sacro-iliac joint, but the procedure would have taken up too much space, and from experience, a very small percentage of readers would be interested in it .

After examining and treating various kinds of injuries, whether they be acute or chronic, the author found that if one does not correct, stabilise, and reinforce the pelvic area when there is an instability of the pelvis (due to poor ligament and muscle support), any attempt to correct the initial problem will bring only temporary results. Furthermore, the original problem may come back, or even move to some other area in the body; (e.g.: going from one shoulder to mid-thoracic area, to a headache, or pain shifting from one side of the pelvis to the other etc).

Sacro-iliac instability and weakness, even atrophy of the gluteus maximus due to the laxicity of the ligaments is/are the underlying cause(s) of many injuries, as well as the occurance of myalgia which can not be specifically related to a trauma or an accident, but which appeared gradually.

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For any type of problem experienced by the patient, who, after some time does not recuperate adequately or does not show improvement, an evaluation should be made for any type of sacro-iliac instability, and the procedure of treatment as explained previously should.be carried out.

In your practice, you should pay close attention to the stability of the pelvis with relation to: 1: different kinds of myalgia throughout the body. 2.: any returning fault that you have been working to eliminate, or 3.: any problem which seems to move from one area to another .

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DIVISION II - CRITICAL REVIEW PAPERS

A SCAPULA MOBILIZATION TECHNIQUE

FOR THE TREATMENT OF ACROMIAL CLAVICULAR PROBLEMS

AND THE FROZEN SHOULDER SYNDROME

By
Eugene Charles, D.C.
September 16, 1992

ABSTRACT: The following is a therapeutic technique utilized to aid in the correction of shoulder problems, specifically acromial clavicular dysfunction (as well as frozen shoulder syndrome). It is hypothesised by this author that many cases of resistent (frozen shoulders) and the acromial clavicular dysfunctions occur due to limited motion of the scapula thoracic articulation.

INTRODUCTION

A basic premise in applied kinesiology is that a muscle and its related joint will often display improper function of related muscles and/or joints (reactive muscles, gait patterns, ect.). It is this author's contention that quite often the above-mentioned A/C problems and frozen shoulder occur due to hypermobility of the above joints due to a relative hypomobility of the scapula thoracic articulation.

DISCUSSION

Described is a procedure for inducing mobilization of the scapula thoracic articulation. It must first be stated that the author at this time has not discovered a 100% accurate diagnostic test for the need of this treatment. Basically this scapula thoracic mobilization technique has been utilized when standard diagnostic tests have revealed no other pathology or functional problems.

Along with the above-mentioned procedure all standard chiropractic, orthopedic and applied kinesiological techniques should be implemented. It is imperative that the serratus anterior muscle be free of any facial or origin insertion problems in that would naturally impede normal scapula motion. The standard treatment of the subclavius, levatascapula and the trepeziae complex should be investigated in the standard fashion.

PROCEDURE

1. The patient is seated and instructed to flex the arm as high as possible without causing undue pain. (In the case of the frozen shoulder syndrome this will be approximately 20 degrees to 30 degrees. In the case of an A/C problem the motion will be approximately be 80 degrees.)

2. The doctor places his thumbs on the medial aspect of scapula. As the patient is again instructed to attempt to raise the arm as high as comfortably possible; the doctor assists by applying an anterior medial pressure upon the scapula as if to assist the patient in raising the arm. This is done anywhere from five to ten repetitions.

3. This time the patient is instructed to again raise the arm, now with the assistance of the doctor. In other words, the doctor will place his or her hands in the underside of the patient's elbow and help guide the patient's arm in a superior manner while still maintaining pressure with the other hand upon the medial border of the scapula, again applying anterior medial pressure.

4. The final procedure applies the post isometric principle of contracting the opposite muscles of the ones you were trying to facilitate. Again after five to ten repetitions of gliding the patient's arm up upon reaching the highest point of brachial flexion, the patient is then instructed to push down against the doctor's hand in an inferior motion, as hard as the patient can. A greater range of mobility should be noted as the doctor attempts to gently glide the arm slightly higher with each repetition.

5. The patient is instructed to attempt to move the arm as if to do a one arm jumping jack.

CONCLUSION

"Correcting any dysfunction of muscles that move the scapula is paramount in treating shoulder dysfunction." 1 The above procedure has proved to be very effective in overcoming difficult cases of frozen shoulder syndrome as well as chronic A/C joint problems.

The main shortcoming of this technique is the unavailability at this time of a specific diagnostic test. At the time of this writing the author has been unable to find a 100% effective method of diagnosing the need for this technique. Therapy localization, challenging the scapula and various strain/counter strain and facial tests have not been reproducible from patient to patient. I find the technique to be very useful and I am sure that further refinement will turn this rather crude therapeutic option into a most valuable tool in the treating of shoulder problems.

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UTILIZING A 128 HERTZ TUNING FORK

TO UNCOVER INTRAOSSEOUS SUBLUXATIONS

By
Eugene Charles, D.C.
September 18, 1992

ABSTRACT: The following is a description of a simple method that may be beneficial for identifying intraosseous subluxations.

Goodheart has stated that the intraosseous subluxation is a phenomena in which a bone becomes subluxated upon itself. 1

Goodheart has also postulated, "the various portion of the bony structure of the skull and the framework of the spine act as wave sources...the waves may emanate from the bone as piezoelectric waves. 2

In the Journal of Biomechanics it was stated, "numerous investigators have reported on the use of vibration analysis to determine bone healing." These authors have monitored a change in vibration of bone during the healing of a fracture.3

The above hypotheses have contributed the author's premise that inducing a vibration to the vertebra in question could possibly act as a screening test for holographic subluxation.

INTRODUCTION

Esteemed applied kinesiologists such as Dr. Goodheart, Dr. Leaf and Dr. Blaich have stated that intraosseous subluxations are very common and are often overlooked. It has been stated that after a standard chiropractic adjustment, the patient should routinely be checked for a intraosseous subluxation.

The standard method of detecting intraosseous subluxations require utilizing either two handed therapy localization or challenging the spinous process with the transverse process. These methods can be time consuming and often discomforting to the patient. This author attempts to relate a possible alternative method to effectively screen for these important and often overlooked spinal problems.

DISCUSSION

Combining the piezoelectric theory of the intraosseous subluxation and the findings of Nikiforidis, et. al that bone has vibratory properties, this author has attempted to use these properties to uncover intraosseous subluxations by placing a vibrating 128 hertz tuning fork upon the spinous process of the vertebra in question.

On the initial trial of this technique, the vibrating tuning fork placed upon the spinous process of T3 and an indicator muscle, in this case the hamstring, was tested for weakening.

This previously strong muscle did in fact weaken with the tuning fork upon the T3 vertebra which was previously challenged to be positive for an intraosseous subluxation.

The physical correction was made in the usual fashion. The vertebra was then re-challenged and was now negative.

The tuning fork was again placed upon the spinous process of the third thoracic and this time manual muscle testing revealed the hamstring muscle to remain strong.

This evidence would seem to indicate that the vibrating tuning fork had accurately diagnosed an intraosseous subluxation.

This technique has been utilized for four years with seemingly reproducible and accurate results. Some patients have stated that the presence of the tuning fork has even given them a feeling of "well-being" when applied for the second time after the manual correction of the intraosseous subluxation.

CONCLUSION

The application of a 128 hertz vibrating tuning fork upon the spinous process of a vertebra appears to be a possible method of screening for the presence of intraosseous subluxations.

Further testing for sensitivity, specificicity and reproductivity are still needed. Further refinements of this technique, such as possible changes in frequencies will greatly aid in using vibration for the detection and possibly the correction of intraosseous subluxations.

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COCCYX CHALLENGE IN THE SEATED POSITION

Earl L. Colum D.C.

ABSTRACT: Pressure to the coccygal area by sitting in a slouched position can produce uni or bilateral weakness of all muscles when an intact muscle is tested. The weakness can be eliminated by treating the sacral-coccyx articulation (just lateral of) with the occiput on the same side.

INTRODUCTION: We have all been told to sit up straight. Patients that have difficulty in sitting, with or without pain in the area of the coccyx, should have this test made.

Most people who test positive have no direct symptomatology to the area and are not bothered with any sitting posture.

We all have been told, sit up straight. What happens when we do not sit erect? Patients would frequently sit slouched. Before starting to test muscles, they are told to sit up. When testing is begun, immediatly after, some muscles may test strong and others weak. Nothing that is not found on any patient. Testing the patient in the slouched position uncovers a different picture.

COCCYX CHALLENGE: All patients should be tested. The patient is asked to sit forward to the edge of the chair,lean back and relax. A strong arm muscle is tested, R & L. If there is no evidence of weakness, have the patient lean ten degrees to the each side, testing a muscle in each position. The right arm is tested with the patient leaning right and the left arm is tested with the patient leaning left. If positive and weakness occurs, have the patient sit up straight. You will now find weakness in all muscles, usually bilateral.

TREATMENT: The doctor sits to the side of the patient. The area to be therapy localized (TL) is just lateral to the sacral coccyx articulation. Test for strengthening of the right arm with a right TL. The left arm with a left TL. If a palmar TL does not strengthen a knuckle contact will. Complete the TL with magnets. For a knuckle contact NS will be positive and be followed by a directional challenge and respiratory assist. A palmar TL will require finding if a N or S pole is needed to treat.

Using the magnet(s) with the positive TL and challenge, double TL to the occiput, halfway between the EOP and the bottom of the skull, right or left of center.

A right coxyx TL is treated with the right occipital TL at the same time using the same pole(s) as per TL. The cranial direction will be opposite to that of the coxyx.

The NS contacts will convert to either a N or S after being treated together using circular direction (4 revolutions) on two phases of respiration. The N or S contacts are challenged for direction and treated with circular (4) direction on each of, at least three, respirations determined at the challenge.

This returns the muscles to normal and eliminates the positive coxyx test. It is common to find a different correction on each side. Could dural torque be involved????

CONCLUSION: For those who have pain in the sitting position, common in women who are pregnant, this treatment provides relief. For the many others who need this therapy with no symptomatology, it can only enhance the patient's health.

How this fits into the total picture is yet to be seen. For now, find it and fix it.

HAMSTRINGS AND THE SPHENOBASILAR FAULT

EARL L. COLUM, D.C.

ABSTRACT: When a sphenobasilar fault is present it can be corrected by using magnetic poles, simutaneously, to the pterion and asterion on the side being treated. The hamstring test exposes a third sphenobasilar fault that is fixed in a neutral position.

INTRODUCTION: A sphenobasilar fault exists when there is a lack of movement at that articulation. It is involved with respiration, being fixed in either an inspiration or expiration phase. Usually found bilateral with both sides being fixed in the same phase of respiration. Occasionaly it is found that one side is fixed in an inspiration phase and the other side in an expiration phase.

Therapy localization (TL) is made by touching the roof of the mouth. If both the right and left sides are locked in the same respiratory phase, the TL will be positive midline. If each side has a different phase, breath in on one side and out on the other, the TL must be done right and left of midline to show positive. The body cannot answer two different questions at the same time. When the fault is fixed in the neutral position, it can only be TLd with the back of a finger on the roof of the mouth.

A patient that has no sign of a cranial/sacral respiratory fault, or with hamstrings that test strong in the prone position, should have the hamstrings tested with the patient seated.

Several tests can be made. 1.With the thigh slightly elevated clearing the foot off the floor. (a).the ankle is pulled forward testing the medial and lateral portions together. (b).rotating the thigh medialy and lateraly, pulling forward at the ankle on each rotation to test the med. and lat. hamstrings individualy.

If a weakness is found that is helped by respiration, a normal cranial-sacral fault has been exposed. If the weakness does not have a respiratory assist, it is usually associated with a weak bicep of the opposite arm which will require a vertebral correction and will be explained in a future paper.

2.With the patients knee elevated as high as possible, pull each ankle forward and upward, one at a time. The test is positive when weakness occurs. It is usualy bilateral and will not have a respiratory assist. Following the exposure of weak hamstring, it will be found that now all muscles on the same side will also be weak.

TREATMENT: Using a weak arm to test. The pterion and asterion are TLd simutaneously with N&S to each point. Only this TL will strengthen the weak muscle.

Challenge both points at the same time with the magnets in a circular motion and in the same direction.

One direction will induce a weakness that will have a respiratory assist, most commonly inspiration.

Having found an inspiration assist, the patient takes a breath in and holds it while the pterion and asterion are treated with the circular motion found in the challenge, N&S poles on each point. There must be at least four revolutions made. Repeat with another breath in and four more revolutions. This part of the treatment unlocks the fault. The patient will remain weak.

The respiratory assist used, determines what pole, N or S is to be used to complete the treatment. Inspiration is S and expiration is N.

Contact the same pterion and asterion, each with a S pole. The points may be challenged for direction and will found to be clockwise on the patients left side and counterclockwise on the right.

Treat both points simutaneously in the determined direction with at least four revolutions with the patient holding their breath in. Repeat at least two more times. This will return all muscles to normal strength except the hamstrings.

Correcting the hamstring weakness is the usual method used in treating a cranial-sacral respiratory fault. The SI articulation and the asterion are treated at the same time with direction and respiration. Four revolutions on each of three inspirations. A right sided inspiration fault will need a counter clockwise circles at the asterion and clockwise circles at the SI. A left sided inspiration fault for hamstring weakness will need a clockwise direction over the asterion and counterclockwise over the SI. This will correct the sitting hamstring test. With an expiration fault the north poles would be used in the opposite directions of the south poles.

R.side Patients		L.side				S Pole	
A	P	P	A			Sacroilics	
C	C	CC	CC	NS	insp.assist	L-CC	R-C
CC	CC	C	C	S	insp.assist		

A-asterion P-pterion C-clockwise CC counterclockwise

CONCLUSION: Exposing and correcting this cranial fault must be considered whenever a cranial-sacral respiratory fault reoccurs. The success of this and previous magnetic therapies could not have been developed without the basics of applied kinesiology. We are especially fortunate to have been given the gift of therapy localization and challenging.

MOTION SICKNESS AND REPETITIVE EYE MOVEMENT

EARL COLUM D.C.

ABSTRACT: Motion sickness in its various forms can be reduced or eliminated by the treatment of cranial points determined by Repetitive Eye Movements (REM) which will produce weakness of intact muscles. The temporomandibular joints (TMJ), the pterions and the eye points are therapy localized (TL), challenged and treated. This restores strength to the weakened muscles and prevents the ill effects of movement by the patient or their surroundings.

INTRODUCTION: The correction was developed in 1990 when a patient related that she had almost gotten sick on the way to the office. She was stopped at a RR crossing, counting freight cars as they passed. She felt better when she stopped looking at them.

Testing her arm and leg muscles showed normal strength. She was told to move her eyes as if she were watching the cars pass. Muscle weakness was now apparent in all muscles tested.

NOTE; In other eye tests, muscles would weaken when the eyes were positioned laterally or laterally up or laterally down. But they would regain their strength when the eyes were centered. In the REM test the muscles will remain weak after the eyes were centered.

PATIENT EYE MOVEMENTS;

I. Horizontally right and left.
II. Eyes positioned to the right and moved up and down.
III. Eyes positioned to the left and moved up and down.
IV. Eyes arced downward, L and R from a horizontal position.
V. Eyes arced upward L and R from a horizontal position.

If a patient has difficulty in moving their eyes through a full range of motion, have the patient follow your hand to lead them. Usually the patient will weaken within six excursions. The greater the problem the fewer number of movements will be needed.

In observing the patients eyes moving through REM tests, it is readily seen that the eyes may move erratically, fail to move to the extreme limits, avoid certain positions or become fixed.

TREATMENT POINTS;

I.A. Weakness will be bilateral. Weakness on the patients R side will negated by a TL (S,N or NS magnetic pole) to the L pterion (a). This TL is double TLd with the R TMJ (b). L sided weakness is TLd, challenged and treated at the R pterion (a) and L TMJ (b). [(a) is the primary point and must be TLd first].

II.A.&III.A. The lateral up and down movement produces a lasting weakness on the side to which the eyes are lateralized. The weakness is abolished by a magnetic TL, on the same side at the pterion (a) or TMJ (a) individually or both may be positive. The positive TL is double TLd to the eye points. The eye points

are found approximately one inch lateral to the external occipital protuberance. Their exact position can be determined by the double TL with the involved pterion or TMJ. The positive eye point may be on either side, TL both.

IV.A. The bilateral weakness produced by the eyes moving back and forth in a downward arc is treated at the TMJs (a&b). The R TMJ will strengthen the R side and the L TMJ will strengthen the L side. Both will have the same magnetic TL and double TL with each other. This correction of the TMJs, done simutaneously, is critical for those patients having trouble with heights.

V.A. Bilateral weakness produced by the upper arc movement is TLd, challenged and treated at the pterions (a&b).

TREATMENT: With any weakness produced in a REM test, TL with a magnetic pole(s) first to the TMJ(a) or pterion(a) as described in I.A. to V.A..

Challenge in a circular direction. A positive response will make an intact muscle weak and leave the primary weakness produced by the REM test. Both will respond to a phase of respiration by strengthening the weak muscles. Using the same pole(s), double TL to point (b) in I.A. to V,A, (neutral breath) for strengthening. Challenge for direction. Treat both points (a) and (b) simutaneously with the determined direction, (at least three revolutions) through at least three respiratory phases that negated the challenge.

S pole contacts are inspiration assisted and N pole contacts are expiration assisted each having its own consistent direction.

A NS TL may not have a respiratory phase until a directional challenge is made. The NS contact (a) must be double TLd with a (b) point, both challenged for direction, the respiratory assist found and treated simutaneously with at least three circles and three respirations. This will convert the NS TL to a N or S TL at both points (a) & (b). Challenge and treat with direction and respiration.

After treatment both the patient and doctor will notice the freedom of eye movement. Any lack in range of movement should be checked by having the patient hold a TL with a dorsal contact to the TMJ and pterion individualy on the side of the fault, while doing the REM II or III test. Either will double TL to an eye point. Challenge and treat. With IV and V faults use bilateral dorsal contacts at the TMJs or pterions with their associated eye movements. Challenge and treat if positive.

The magnetic pole(s) is determined by the TL (touching a point without movement). Tapping the magnet is a challenge causing weakness of any muscle. There will not be any respiratory assist although the weakness produced can be double TLd.

A TL can be done by the patient or doctor using the pad of a finger (palmar) or a knuckle (dorsal) contact. A palmar contact signifies that a N or S pole will be needed to treat. A knuckle contact will require a bipolar NS for treatment.

Page 3. REM. Colum

REM treatment is only done on patients who have been treated for ileocecal valve, cervical and atlas-occiput fixations, one sided or bilateral total weakness.

CONCLUSION: This simple treatment that can be done in a few minutes, to correct the imbalance of the muscles of the eyes has proven to be helpful in improving eye movement, relieving eye strain, reducing the strength of glasses and has a direct effect in eliminating motion sickness.

Do Your Symptoms Fit the Sub-Clinical Heart Syndrome?

By

Burt Espy, BS, MS, DC, FIACA*

ABSTRACT

The sub-clinical heart syndrome is basically a group of very common physical symptoms which are generally considered minor or unimportant. These include fatigue, headache, chest pain, neck pain or stiffness, shoulder, elbow or wrist pain (carpal tunnel syndrome), etc.

The cause of these symptoms is heart stress due to inadequate diet, negative emotions, genetic weaknesses, and mental or physical stresses. Diagnosis, treatment and prognosis discussions are also included.

INTRODUCTION

This original research is based on 12 years' experience with patients utilizing clinical kinesiology. Dr. Alan G. Beardall, diplomate, ICAK, developed and taught clinical kinesiology, a modification of applied kinesiology.

Recently, a twenty-nine-year-old Army male died suddenly of an unsuspected heart attack. He was the commanding officer of the husband of one of my patients. He was healthy by most standards. Although he had no pathology, he probably did have some sub-clinical symptoms, but took a painkiller for relief as suggested by TV, the media and most medical doctors. Could there have been another outcome? I think so.

Another patient, Ellen (a twelve-year-old female), came to me because of a painful and weak left hand and wrist (Carpal Tunnel Syndrome or CTS). She liked to play piano and was deeply involved in gymnastics in her grade school. She was advised to start CTS treatment which involved splints and anti-inflammatory drugs, and possibly surgery, but her mother thought there must be another way. Ellen became a patient and was diagnosed as having heart stress causing the symptoms. After only a month and five treatments Ellen was playing the piano again and involved in gymnastics. Six months later she earned two blue ribbons in local gymnastic events and went on to the state competition placing sixth. Ellen has her heart set on the 1996 Olympics. This is the alternative outcome. By treating the *cause* of the problem, which is most generally *not* where the pain is, the problem was resolved without side effects or complications.

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DISCUSSION

What is the Sub-Clinical Heart Syndrome?

The Sub-Clinical Heart Syndrome was discovered in my patients over the last twelve years. Although it has been present for years, I only recently recognized it.

Most patients have symptoms such as pain, numbness, swelling, weakness, etc., that are not uncomfortable enough to force patients to seek help. Few realize, however, the seriousness of the symptoms. Typically, these are considered minor and are blamed on "indigestion," muscles," or "I just slept on it the wrong way." If they do seek professional help they've often been told that they'll have to wait until it gets worse or simply take a painkiller.

However, I find that most pain is referred pain and that "the problem is *not* where the pain is." Most generally it is coming from an *organ*. Since most organs have few pain receptors, they usually refer pain into a muscle somewhere in the body because the muscles are all associated with an organ. The position on the surface of the body to which pain is referred, depends on the segment of the body from which the organ developed embryologically, (see figure 1) For instance, the heart originated in the neck and upper thorax, and thus refers pain mainly to the base of the neck, over the shoulders, over the pectoral muscles, down the arms, and if severe, directly beneath the sternum and over the heart. The "referred pain" has generally been described in textbooks as being on the left side rather than the right – probably because the left side of the heart is more frequently involved in coronary disease. However, my clinical research has found symptoms on the right almost as frequently as the left. It seems to correlate with the areas having the most physical stress.

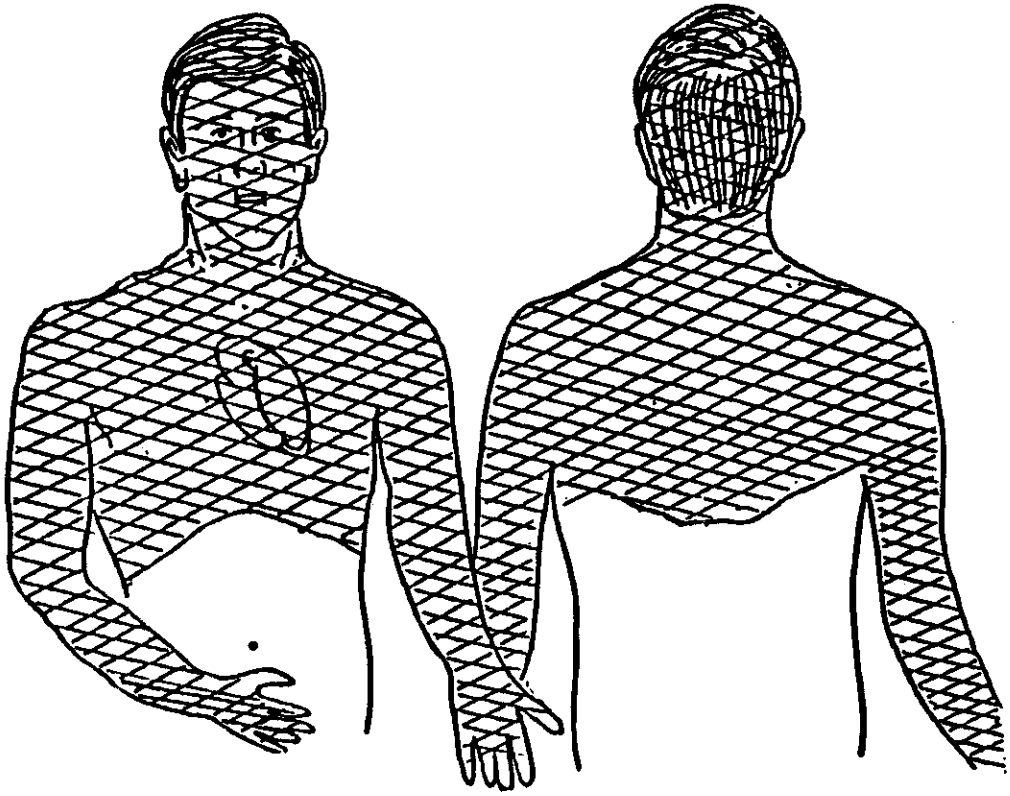

FIGURE 1:
Cardiac referred pain areas

Therefore, the Sub-Clinical Heart Syndrome is basically a group of common physical symptoms, i.e., fatigue, headache, neck pain and stiffness, shoulder pain and stiffness, elbow and wrist pain (CTS), chest pain, indigestion, etc., that are generally considered as minor or unimportant. These are caused by heart stress due to diet, emotional, mental and physical stress and genetic weakness.

Symptoms

The following symptoms are all considered sub-clinical because most medical test generally give no indications of the dysfunction which these symptoms represent. For example, a patient may complain of one or more symptoms of the Sub-Clinical Heart Syndrome (listed below) and be given an EKG, a cardiac enzyme evaluation and any number of tests, which all yield "normal" findings. The patient is told that his or her pain is normal, or "all in their head" and thus the causative problem is not discovered.

Common Sub-Clinical Heart Syndrome symptoms include the following:

fatigue
neck pain or stiffness
shoulder pain or stiffness
pain between shoulders
headaches
chest pain
pain down arms
elbow pain
wrist pain (Carpal Tunnel Syndrome)
numbness
tingling hands/fingers
pain under ribs
swelling ankle/hands
indigestion
chronic fatigue syndrome
reflex symphatic dystrophy
syndrome "X"
high blood pressure
irregular heart beat/rapid heart beat
palpations
varicose veins
transient ischemic attacks
stroke
phlebitis

This is a long, all-encompassing list of symptoms. But these symptoms deal with the entire cardiovascular system rather than just the heart alone. Also, although the above symptoms deal primarily with the heart, other organs are also usually involved.

It is interesting to note that the Sub-Clinical Heart Syndrome includes four medically-classified pain syndromes listed below:

1. Carpal Tunnel Syndrome (CTS)
2. Chronic Fatigue Syndrome (CFS)
3. Reflex Symphatic Dystrophy (RSD)
4. Syndrome "X"

Frequency

Some days it seems that most of my patients are heart patients, but in counting, it turns out to be approximately fifty percent. Most people are walking around with some or several of the previously listed symptoms thinking that it's just "old age" or problems that they'll "just have to learn to live with," as their doctor said. Others are taking one painkiller after another, searching for the least expensive and/or most effective. People give the body little credit for intelligence. Yet I believe it's really trying to tell us something, and painkillers are just saying to the body "Shut-up, I don't want to listen to your problems."

Causes

In treating many patients over a twelve-year period, I have concluded that there are four reasons why people have symptoms or health problems:

1. Improper diet (excessive fats, salt, chemicals and drugs)
2. Negative emotions (negative thinking)
3. Excessive physical and/or mental stresses
4. Genetic weaknesses

HISTORY AND EXAMINATION

A confidential health history covering the following areas of the body is essential for proper evaluation of a patient's health status. I have added some items to make the history more complete:

muscle and joint
gastrointestinal
eyes, ears, nose and throat
cardiovascular
respiratory
skin
genito-urinary
female problems
former health conditions
current health concerns
prescription drugs taken
surgical procedures

vitamins and supplements taken
use of tobacco, coffee, alcohol or other drugs
regular exercise
current treatments
goals for treatment
any exceptional emotional traumas

As you many have noticed, the above list contains "goals for treatment." This is very important because you are dealing with the patient's psyche as well as the physical symptoms. If your expectations or goals are different from that of the patient, progress will be hindered.

Exceptional emotional traumas are extremely important to note because they may have been suppressed for years. This causes the patient to be must less responsive to treatment. Most of my more difficult patients fit this scenario.

The patient case history form which the patient fills out initially should contain most of the above information. However, any unusual items or patterns should be discussed with the patient during the initial consultation.

Symptom Patterns

In my experience, the symptom pattern usually indicates the primary organ dysfunction. Thus, before you start work on a patient, you should have a good idea of the major organ imbalance or stress. This would usually be addressed on the first treatment or visit.

CLINICAL KINESIOLOGY EXAM

The idea for this exam was developed and taught by Dr. Alan G. Beardall as a very quick and accurate means to access a patient's health status. This exam is non-traditional for a reason. It accesses information (from manual body-testing) which is not attainable by other testing and it is far more sensitive than laboratory testing, if the doctor is experienced. To evaluate the body's energy balance on a daily basis, I am using the most sensitive instrument ever created – the human body. As I so firmly believe, the body is far more sensitive and accurate than man-made instruments such as the EKG, MRI, etc.

While in school, I was EKG Staff Head during my senior year in internship in Student Clinic and thought the EKG was wonderful. But since I've been in private practice I've seen several patients who almost had a heart attack and yet their EKG's were "normal." In addition, I've seen many patients with Sub-Clinical Heart Syndrome symptoms who had normal EKG's, even normal treadmill EKG's.

This illustrates the fact that patients with Sub-Clinical Heart Syndrome symptoms are not yet in a state of pathology. These states of body imbalance (sub-clinical) can manifest a terrible discomfort or pain. Yet, they are only the beginning stages of the process which can ultimately lead to pathology and death. Thus, I don't recommend an EKG for confirmation because it is not sensitive enough.

DIAGNOSIS

Clinical Kinesiology, although unconventional, treats the body as a very intelligent biocomputer. Four computer levels or symptoms of the body are evaluated including the local, spinal, endocrine, and primary computer levels.

The local computer data is stored in the muscles of the sternocleidomastoid (on either side of the neck). The spinal computer adaptations are generally stored in the muscles of the hyoid, with the stylehyoid being the most frequent muscle involved. The endocrine computer adaptations are stored in the muscles of the temporomandibular joint (TMJ) and the primary computer adaptations are stored in the muscles of the eye.

Electro-Meridian Imaging (EMI)

This is really a viscero-cutaneous reflex exam or nerve conduction test originally developed in Japan as Ryodoraku by Nahatani. The Ryodoraku is an electro-stimulation diagnostic/therapeutic modality. The EMI exam basically measures the energy level and balance in the twelve main body acupuncture meridians. Although we don't treat solely on this information, it's another input into the whole picture of the body's health.

TREATMENT

Treatment consists of a wholistic approach in treating the body's problems. We test to see what the body needs, then we retest to check the effectiveness of the treatment. We generally find that the body wants the acupuncture system corrected first, so we usually start there.

Acupuncture

First, we balance the major meridian (for the major organ involved). After locating the acupuncture points needing correction (utilizing clinical kinesiology diagnostic techniques), we have a choice of four different forms of acupuncture:

needle
soft laser
magnet or acutabs

The form of acupuncture to be used is based on patient desires and physical aspects of the particular point location. My clinical work has shown all four to be effective.

Nutrition

To get the best response from the body, specific nutrients are required for the organ under stress. And most generally we find that the body requires glandulars. Later, as we work through adaptations, the body many require specific vitamins, minerals, enzymes, or occasionally amino acids. CK techniques also can be used to determine the daily dose and length of time required for the specific nutrient to build the body's health reserve back to normal.

Adjusting

Normally, after the acupuncture and nutritional requirements are determined, we ask the body for any subluxations, such as bone or tissue misalignments. (All of these will not show up initially.) Correction is generally made with a low-force instrument since the body is very delicate and my research shows this low-force adjusting to be very effective. Corrections are made where they are found, whether spinal, extremity or tissue.

Diet-Lifestyle

My clinical experience has shown that the safest and healthiest diet is one of fruits, vegetables and grains with restricted fats and salt. However, pregnant females are the exception since they require some fats and salt for the development of a healthy baby.

Dairy products are particularly harmful because of their high fat content. Stimulants and/or depressants are also particularly harmful to the body (caffeine, nicotine, alcohol and all drugs), especially in large doses.

PROGNOSIS

Prognosis is excellent if the patient cooperates with treatment and is willing to accept responsibility for the problem. However, there are some people whom you could treat forever and never resolve their problems.

In summary, the situation is not as simple as killing pain with a drug. The following factors all affect the situation and if you desire healing, these *must* be heeded at least while under treatment, or perhaps always, if you desire to remain symptom-free.

1. Excessive physical stress in the area in question can hinder progress.

2. Improper diet, such as one containing too much fat or salt or foods to which you are sensitive, can cause exacerbations of symptoms. A good diet is most important if you want to be healthy, and remember– the healthiest diet consists of fruits, vegetables and grains.

3. Use of stimulants or depressants (drugs) will probably also cause a strong exacerbation. For example, it is virtually impossible to bring the heart out of stress if you insist on smoking. This, all syndrome symptoms will be open to exacerbation if the heart is compromised by harmful lifestyle choices.

CONCLUSION

The cause of these symptoms is heart stress due to inadequate diet, negative emotions, genetic weaknesses, and mental or physical stresses.

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Key Words

Acupuncture

Kinesiology

Nutrition

Heart

Cardiac

Referred Pain

Neck Pain

Wrist Pain

Carpal Tunnel Syndrome

Chest Pain

A TESTING AND TREATMENT PROCEDURE FOR METAL TOXICITY

MICHAEL LEBOWITZ D.C.

ABSTRACT: A procedure for screening and treating metal sensitivity/toxicity is discussed. The procedure has proved to be clinically effective, simple to implement, and has had gratifying results.

INTRODUCTION

Over the last five years I have had an evolving protocol to test for metal sensitivity/toxicity (1,2). Of course not all the ideas have been mine, and brilliant input by Walter Schmitt D.C. has been essential. As our work progressed and as we have learned of more and more metals that effect health we have had to revise our techniques and also test more and more metals. For instance, not only is barium used in certain radiographic studies, but it is also added to many dental composites to make them radio-opaque. As a result it is not unusual to find barium positive on our screening.

DISCUSSION

Because we are evaluating neurological responses via muscle testing upon exposure to metals, we feel we cannot accurately differentiate between a sensitivity and toxicity by this method alone. Despite that, the desensitization procedure, coupled with correct nutritional supplementation brings quick resolution of findings and symptoms in most cases.

I personally feel it is more accurate to use the metal itself than a homeopathic of the metal to screen. Studies I have informally done in my office with mercury homeopathics do not show more than a 50% correlation with that of metallic mercury. I have found the homeopathic response greatly depends on the potency of the remedy used- and the potency the patient responds to can vary on a daily basis. Both false negatives and false positives can result for a variety of reasons. Since we have not found a reliable source to supply all 28 metals we routinely screen, we have settled for using a kit of mineral ores (3). The kit is not overly expensive, is easy to use, and correlates fairly well with testing the actual powdered metals (I actually do have a set of powdered metals).

Before going into the procedure, I need to bring forth a few observations:

1. In 50% of your cases of metal toxicity, you will get negative test results when screening on the initial workup. Many people do not appear physiologically ready to detoxify their stored metals initially. In these cases after correcting dysbiosis, emotional circuit breakers (4), and cranials it is not uncommon to find between 2-10 metals show up.
2. In the case of mercury, especially post amalgam removal- it will often only show on days the patient is symptomatic (emotional, foggy, forgetful, etc.). Testing on asymptomatic days yields negative results. The body in effect appears to release mercury on a fairly unpredictable schedule. A more detailed paper on mercury alone will hopefully be forthcoming.
3. Gold and mercury can in difficult cases take many months to resolve. From our own clinical experience we feel gold is not a good choice for an amalgam

subsitiute for toxicity, sensitivity, and electromagnetic reasons. An aluminum free, barium free, biocompatible composite would be best. Serum testing can be done to find the best ones (5).
4. The nutrients a patient needs to eliminate metals can change from test to test in difficult patients.
5. Patients with six or more positive metals almost always have electromagnetic sensitivity (6) which also needs to be treated.
The procedure listed below is taken from the notes of the classes I give. They have proven clinically to be very effective. Biomagnetic testing is utilized to increase accuracy and decrease needless patient exposure (9,10).

PROTOCOL

We routinely test the following metals for toxicity/sensitivity on multisymptomatic patients: aluminum, antimony, arsenic, barium, beryllium, chromium, cobalt, copper, iron, lead, lithium,magnesium, manganese, mercury, molybdenum, nickel, strontium, tin, titanium, tungsten, vanadium, uranium, zinc, gold, silver, platinum, bismuth, cadmium- 28 in all. The kit of mineral ores (3) has the first 23 metals listed above. Bismuth and platinum can be ordered separately. Gold, silver, and cadmium should be should be obtained from other sources.
1. See if a strong indicator muscle weakens when any of the 28 metals is placed under the south pole of the magnet over GV-21 or preferably the "dysbiotic pocket".
2. It is possible to simultaneously have a toxicity of one form of metal such as iron and a deficiency of the usuable form of the mineral.
3. See which of the following negate the weakness:

a) Ascorbic acid (7)- 1 teaspoon in water 3 times daily
b) Metaplex (7)- 2 capsules 3 times daily
c) Cysteplus (7)- 1 capsule 3 times daily
d) Taurine (7)- 1 capsule 3 times daily
e) Biomins (7)- 2 capsules 2 times daily
f) Tracemins (7)- one capsule 3 times daily
g)Selenium picolinate (7)- 1 capsule 2 times daily
h) in some mercury toxic patients ascorbic acid, Metaplex, and selenium must be tested simultaneously to show positive. In these cases all three should be given.
4. Treat the master setpoints. Retest the metals. They should now test negative. Supplement and recheck the next visit.
5. If metals are negative do not forget to do the amalgam sensitivity test (8).

To accelerate the excretion of metals in difficult cases (especially mercury) daily use of a sauna at 140^0 for between 30-120 minutes is very useful. Mercury can cause symptoms in patients for decades even after amalgam removal. Sauna use coupled with the treatments outlined can cut it to

weeks or months in most cases. Interestingly if a patient collects sweat samples from the sauna (catching drops of sweat in a vial), the sweat will cause muscle weakness (tested biomagnetically) and it will be negated by the same supplements that negate the positive metals. These patients often feel better after saunas though it starts a detox cycle that is hard to stop. Some days weakness and brain fog and emotional swings will occur. Be sure to monitor mineral levels closely during a round of saunas.

I have basically just touched the surface but if you need more specific information, please call me.

CONCLUSION

In many chronically ill patients, toxic metals can be a component in their illness. Desensitization, supplementation, and detoxification if done according to the protocol listed has yielded excellent results in a majority of patients (as part of a whole treatment regimen).

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AMPLIFIED FINGER-TO-FINGER TESTING FOR CEREBELLAR FUNCTION

Walter H. Schmitt, Jr., D.C., D.I.C.A.K., D.A.B.C.N.

Abstract: Information from the finger-to-finger test for cerebellar function may be amplified by performing the test with the head in three positions: center, right ear down, and left ear down. The results of these three tests can represent 1) normal, 2) off centering dysfunction, or 3) unilateral dysfunction. The abnormal patterns are due to treatable functional deafferentation patterns of the cerebellum. The amplified finger-to-finger test abnormals guide the clinician to the type of deafferentation present. Correction of deafferentation normalizes the amplified finger-to-finger test with the head in all three positions. Summary notes are included at the end of the paper.

INTRODUCTION

The cerebellum is the coordination center for all somatic motor activity in the body. Many tests for cerebellar integrity exist including the finger-to-finger test. All of these tests are designed to identify normal functions of the cerebellum. Tests for cerebellar function are rarely perfectly normal and so there are limits of normal variation which are acceptable.

When any cerebellar test is grossly positive, most doctors jump to the conclusion that there is cerebellar disease. When any cerebellar test is only slightly positive, most doctors accept it as within normal limits. Neither interpretation is correct.

Clinical experience has shown that most imperfect cerebellar tests, whether slightly or grossly abnormal, reflect not cerebellar disease, but a functional deafferentation of normal input to the cerebellum. Deafferentation is the lack of normal sensory supply to an area. Functional deafferentation is a lack of sensory information due to a functional problem in the body. A common example is a fixated vertebral segment not moving through its normal range of motion, resulting in less than normal stimulation of muscle and ligament receptors.

Tests for cerebellar function will be abnormal in any of the three cases:

1) cerebellar disease with cerebellar damage,
2) pathology to pathways leading to the cerebellum,
3) functional deafferentation due to articular fixations and subluxations and other "short circuits" in pathways normally sending information to the cerebellum.

By far, number 3) is the most common source of abnormal cerebellar testing results.

NORMAL INPUTS TO THE CEREBELLUM

There are three main inputs to the cerebellum. (1, 2) These are inputs from:

1) mechanoreceptors from muscles and joints of the entire body,
2) the balance mechanism in the inner ear,
3) the cerebral cortex.

The input from the cortex tells the cerebellum where the brain wants the body to go. The input from proprioception tells the cerebellum where the body is in relationship to itself. The input from the inner ear tells the cerebellum where the body is in relationship to gravity. The cerebellum rapidly integrates all of this afferent input and sends efferent messages to the brainstem motor pathways which modify outgoing motor activity for smooth and coordinated movements. This is the main function of the cerebellum as we know it today.

DISCUSSION

AMPLIFIED FINGER-TO-FINGER TEST

The finger-to-finger test is performed with the patient's eyes closed. The patient is asked to bring the finger tips of each index finger together in front of the body from a starting position of holding the arms apart. We augment this test with the patient in the supine position (or in the upright position) by adding two additional components to the normal test.

The patient is asked to perform a normal finger-to-finger test with the head in a central position. Then, in the supine position, the patient is asked to turn the head ninety degrees to one side to create a one ear down position. In this position with the head turned, the patient is again asked to perform the finger-to-finger test, to bring the index finger tips together in front of the body. The third part of the test is the same as the second except with the head turned ninety degrees in the other direction creating the other ear in the down position.

The latter two variations of the test bring into play possible abnormal afferentation from inner ear activity and from cervical proprioception imbalances as sources of imperfect finger-to-finger activity. They may also be performed in the upright position with the head tilted in lateral flexion to achieve the one ear down position of the head.

There are three basic patterns of abnormality associated with the amplified finger-to-finger test which are commonly encountered. Each results from cerebellar deafferentation from a variety of sources. The three abnormal test patterns are as follows:

1. NORMAL
2. OFF CENTERING DYSFUNCTION
3. UNILATERAL DYSFUNCTION

Normal is when the right and left index fingers meet in the center in each head position, i.e., head center, right ear down, and left ear down. Off centering dysfunction shows in two typical patterns: 1) The finger tips do not meet in the head center position. 2) The finger tips miss each other in different directions in each head position. For example, in one head position, the right finger passes higher than the left, and in another head position, the left finger passes higher than the right.

Unilateral dysfunction is also demonstrated by two typical patterns: 1) The non-meeting finger tips always miss each other in the same pattern. In other words, in all three head positions, the right finger always passes higher than the left finger. 2) Only one of the one ear down positions interferes with the finger tips meeting.

Examples of these three patterns are summarized in the following chart.

AMPLIFIED FINGER-TO-FINGER PATTERNS

SIGNIFICANCE	HEAD RIGHT	HEAD CENTER	HEAD LEFT
NORMAL	R TO L	R TO L	R TO L
OFF CENTER DYSFUNCTION	R OVER L	R TO L	L OVER R
"	L OVER R	R TO L	R OVER L
"	R TO L	OFF	R TO L
UNILATERAL DYSFUNCTION	R OVER L	R OVER L	R OVER L
"	L OVER R	L OVER R	L OVER R
"	R TO L	R TO L	R OVER L

The source of the amplified finger-to-finger test deviations can be identified depending on whether the problem ia an off-centering dysfunction or a unilateral

dysfunction. The abnormal test pattern guides the doctor to identify the specific clinical factor or factors which are responsible for each specific type of fault. The clinical problems which must be ruled out are different for off-centering and unilateral dysfunctions.

The faults which create off-centering dysfunctions are as follows: switching problems, immune system problems (allergies and hypersensitivities), autonomic problems (vagus imbalances and visceral referred pain activity), history of injury problems related to injury recall technique, cranial faults, hyoid and TMJ problems, functional visual motor problems (cranial nerves 3,4, and 6), heavy metal toxicity, emotional stress problems, and deficiency of nutrients.

The faults which create unilateral dysfunctions are as follows: head turn tonic labyrinthine reflexes (endocrine problems), sacral and iliac fixations, levator scapula weakness (often parathyroid problems), individual muscle weaknesses in the neck, shoulder, arm, and forearm, cervical subluxations, and nutrient requirements.

Gustatory stimulation with an appropriate nutrient may be necessary to improve an abnormal finger-to-finger pattern. When all else fails to normalize the test, have the patient taste a previously strengthening nutrient and recheck the finger-to-finger in each head position. If the test is significantly improved, the nutrient will definitely help the patient. When multiple nutrients strengthen a weak muscle, this is one method of confirming which nutrients are the most appropriate for the patient.

Correction of an appropriate fault causes a return toward normal of the amplified finger-to-finger test. When all faults have been corrected, the test should be perfect or near perfect with the finger tips touching in all three head positions.

CONCLUSIONS

Amplification of the finger-to-finger test by adding the right and left ear down positions is a very useful objective monitor of the status of cerebellar afferentation. Often we make corrections which do not fix the patient but merely move the problem around. This can be seen when one employs the amplified finger-to-finger test. For example, the test may be normal except that the fingers do not meet in the right ear down position. Following a cervical subluxation adjustment, the right ear down position test is normal but the fingers do not meet in the left ear down position. In this case the adjustment did not help the patient, it simply altered the body's adaptation to some other uncorrected problem, possibly a tonic labyrinthine reflex problem.

It took many months of trial and error investigation to identify which faults cause which finger-to-finger patterns. However, with the list below to guide you, and just a little practice, you can use this test to aid in the identification of the patient's primary problems. This speeds the treatment procedure while making it more effective because you are rapidly guided to the primary faults. It also speeds the patient's recovery for the same reason.

Applied kinesiologists are really functional neurologists. Modifying and

amplifying standard neurological tests to suit our needs for evaluation of neurological function provides an efficient system to follow in the care of our patients, one which is based on the most important of the body's systems, the nervous system.

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SUMMARY NOTES FOR AMPLIFIED FINGER-TO-FINGER TESTING FOR CEREBELLAR INTEGRITY

INPUTS TO CEREBELLUM

1. PROPRIOCEPTION (JOINTS & MUSCLES)
2. BALANCE (VESTIBULAR MECHANISM)
3. CEREBRAL CORTEX

AMPLIFIED FINGER-TO-FINGER TEST WITH:

1. HEAD CENTERED
2. RIGHT EAR DOWN
3. LEFT EAR DOWN

PATTERNS

1. NORMAL
2. OFF CENTERING DYSFUNCTION
3. UNILATERAL DYSFUNCTION

FACTORS AFFECTING AMPLIFIED FINGER TO FINGER TEST

OFF CENTERING DYSFUNCTIONS

SWITCHING
IMMUNE SYSTEM PROBLEMS (ALLERGIES AND HYPERSENSITIVITIES)
AUTONOMIC PROBLEMS (VAGUS (X) OR VISCERAL REFERRED PAIN PATTERNS)
HISTORY OF INJURY (INJURY RECALL TECHNIQUE)
CRANIAL FAULTS
HYOID - TMJ
FUNCTIONAL VISUAL MOTOR PROBLEMS (CRANIAL NERVES III, IV, & VI)
HEAVY METAL TOXICITY
EMOTIONAL STRESS PROBLEMS
NUTRIENTS

UNILATERAL DYSFUNCTIONS

HEAD TURN TLR PROBLEMS (ENDOCRINE IMBALANCES)
SACRAL/ILIAC FIX
LEVATOR SCAPULA (PARATHYROID PROBLEMS)
INDIVIDUAL NECK, SHOULDER, ARM, AND FOREARM MUSCLE WEAKNESSES
CERVICAL SUBLUXATIONS
NUTRIENTS

MAKING ORAL AND MAGNETIC TESTING THE SAME

Walter H. Schmitt, Jr., D.C.

Abstract: Oral and magnetic testing for nutrients and toxic or allergic substances should be identical. When there is disagreement between the two types of testing, it represents a problem with injury recall technique patterns and/or switching.

INTRODUCTION

The use of a magnet for testing various substances with muscle testing was introduced by Lebowitz in 1991. (1) He reported that muscle testing outcomes would change when various substances were tested by placing them between the south pole of a 5000 gauss magnet and the skin of the abdomen. He based his findings on those of Philpott (2) who hooked patients arms and legs to an ohmmeter and found changes in readings taken when allergens or similar substances were placed between the south pole and the body.

Lebowitz reported that when oral testing was performed first, magnetic testing over the abdomen was in agreement "over 95% of the time." He also found that magnetic testing over an area of symptoms would show changes "approximately 30% of the time" when oral testing was negative.

Hogg (3) found a 91.86% agreement between oral and magnetic testing on 91 subjects in his 1992 study. Summarizing these reports suggests that there is between a 5% and a 30% disagreement between oral and magnetic testing.

DISCUSSION

WHY THE DISCREPANCIES?

The discrepancy between these two types of testing has been observed frequently in our office. The hypothesis was made that there should be no difference between oral and magnetic testing and that a difference represented a fundamental imbalance in the body which should be corrected prior to either type of testing. This hypothesis has been shown to be accurate by clinical observations over the past two years.

Disagreement between oral and magnetic testing is created by one of the following:

1. Muscle memory of withdrawal reflex patterns related to the history of injury.
2. Switching factors.

Injury recall technique (IRT) patterns create muscle imbalances related to muscle withdrawal reflexes associated with previous injuries, even those far in the past. (4) The

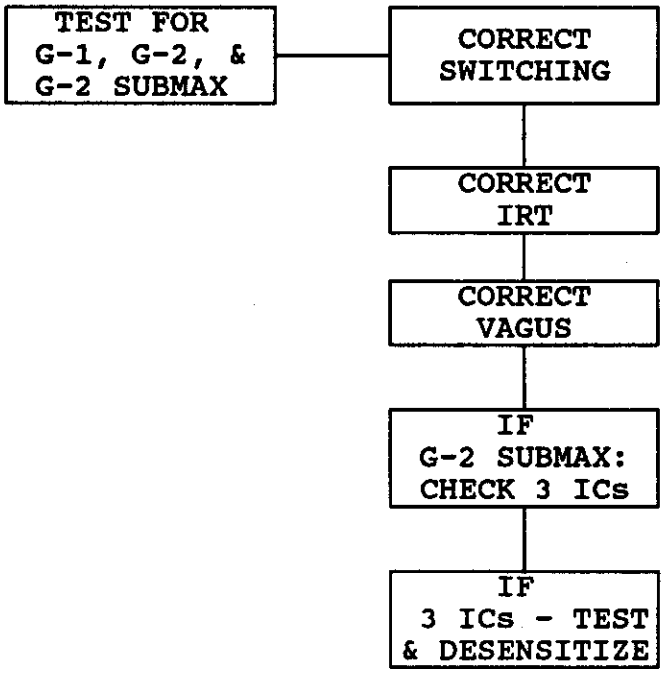
need for IRT can also be related to spinal areas where there was no apparent injury, but a history of recurrent subluxation.

Switching factors are discussed in an accompanying paper in these *Proceedings*. (5) The correction of IRT factors and switching factors is essential to achieving agreement between oral and magnetic testing. In fact, correcting the lack of agreement between oral and magnetic testing appears to be much more important in the care of the patient than identifying what substances might be good or bad for the patient.

Most of the testing used to determine the factors which create disagreement has been allergy testing. Desensitizing patients when there is disagreement between the two types of testing has usually resulted in temporary results only. Following IRT and switching correction, desensitization procedures have been much more effective and long lasting as have all other treatment procedures.

The following flow chart describes the treatment procedures based on the hierarchy of the nervous system and clinical experience. Following these procedures in this order will assure maximum effectiveness of desensitization and other treatment procedures.

CLINICAL PROCEDURES OVERVIEW



*3 ICs = 3 Immune Circuits: Upper sternum, Lower sternum, Spleen NL

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SWITCHING

Walter H. Schmitt, Jr., D.C.

Abstract: Procedures for identifying and correcting switching patterns are discussed and summarized at the end of the paper in a flow chart. Switching is presented in a new perspective in three categories: 1) chewing mechanism problems, 2) front/back switching, and 3) right/left switching. The importance of each switching pattern is shown to be related to its effects on fundamental postural control mechanisms of the upper cervical area, the labyrinthine reflexes in the inner ear, and the pelvis.

INTRODUCTION

The concept of switching and acupuncture point K-27 was introduced by Goodheart in 1971. (1) This author was the first of Dr. Goodheart's patients who was intentionally "unswitched." In other words, I was his guinea pig for figuring out the K-27 switching relationship.

Due to this personal interest, I have attempted to understand the switching phenomena as thoroughly as possible. Now, over twenty years later, this paper presents switching in a new and different perspective and categorizes switching problems for the first time.

Switching is a neurological disorganization phenomenon. The location of the disorganization within the nervous system is unclear. However, it is certainly *not* in the corpus callosum. Close observations of functional neurological patterns of muscle testing and switching disorganization have led to the conclusion that what we call switching is a disregulation of fundamental postural control mechanisms. This includes the TMJ and chewing mechanisms which must be in tact in order for unswitching procedures to sustain correction.

Clinically, switching can be seen to fit into three categories: 1) chewing mechanism problems, 2) front/back switching, and 3) right/left switching. Experience has taught us to correct the chewing mechanism first, then front/back switching patterns, and finally right/left switching in most circumstances. Exceptions to this rule will be discussed later in this paper.

Unswitching the patient thoroughly and in the correct order is often critical for the improvement of the patient. Since switching patterns are related to fundamental postural control circuits, failure of proper execution of unswitching procedures often results in merely "moving the patient's problem around" rather than correcting it.

CHEWING

The importance of the chewing mechanism and TMJ function can be demonstrated by a procedure suggested by Dr. Sam Yanuck. (2) He hypothesized that a weak muscle

should be strengthened by having the patient go through the chewing motion. If any weak muscle, including an indicator for an ileocecal valve (ICV) challenge, does not become temporarily (for just a few seconds) strong when a patient goes through ten chewing motions, there will be an important and apparent TMJ involvement. When chewing fails to strengthen a weak muscle, this pattern must be corrected prior to all other corrections .

If chewing does not strengthen a muscle, one of four possibilities exists: 1) TMJ closing fault, 2) TMJ wide opening fault, 3) injury recall technique (IRT) to the TMJ, and/or 4) ligament interlink technique (LIT) from one TMJ to the other TMJ. The presence of TMJ closing or wide opening faults will be easily identified because TL to the TMJ will strengthen a weak muscle. If TL to TMJs is negative, then you must screen for IRT and LIT problems. The corrections which follow are based on attempts to decrease the recurrence of TMJ muscular faults and will provide a new approach for most practitioners.

FIXING THE TMJ CLOSING FAULT

When the TMJ therapy localizes (TLs) on closing or clenching the teeth, it will be negated by placing the head and neck, particularly the atlanto-occipital area, in flexion. This implies that the TMJ problem is aggravated by extension. We have learned that the TMJ - upper cervical extension pattern exists due to a pattern of injury recall technique (IRT) somewhere in the head and neck. (3)

The IRT is usually at C-1, not necessarily due to any acute trauma, but rather due to chronic irritation. Occasionally the IRT is somewhere else in the head or neck area. Finding head and neck IRT problems is performed by TLing the area with the neck (atlanto-occipital area) in extension and observing a strong indicator muscle weaken.

Correction of head and neck IRT problems is performed by having the patient TL the area of previous injury (or subluxation) and the doctor gently but firmly flexes the atlanto-occipital joint three or four times. (This is similar to an atlanto-occipital rocker technique procedure.) After this correction, the TMJ closing fault is no longer present.

FIXING THE TMJ WIDE OPENING FAULT

In the past when the TMJ TLs on wide opening, we have fascial flushed the temporalis and masseter muscles and performed temporoparietal jamming technique on the squamosal suture. This recurred so often that we found an underlying cause in most patients. The cause of most wide opening TMJ faults relates to the fact that the TMJ is the first stage of digestion and, as such, is related to other digestive imbalances.

The TMJ wide opening fault will be accompanied by a visceral referred pain area problem from one of the digestive organs. (4) Hot or cold to one of the digestive

referred pain areas will cause the TMJ wide opening fault to be negated (and will strengthen any other weak muscle.) Using the opposite modality (i.e., cold or hot) to the same referred pain area will bring out a hidden fault. This is often a subluxation of C-1 or the sacroiliac (category 2), or a hidden K-27 switching pattern as will be discussed below. If K-27 TLs only with the hot or cold on the referred pain area, the correction will be IRT to C-1. Otherwise, adjust the spinal or sacroiliac area which TLs with the hot or cold in place over the referred pain area.

TMJ IRT AND LIT PROBLEMS

If no opening or closing fault is present, TL each TMJ with the neck in extension to look for IRT to the TMJ itself. If present, correct while maintaining the TL and flexing the atlanto- occipital joint. Occasionally there will be a very sensitive trigger area in the TMJ and IRT performed immediately following manipulation of this area seems to a better approach than making the correction with TL only.

LIT problems of the TMJ are found by a unique TL involving crossing the hands on the TMJ. In other words, placing the right fingers on the left TMJ while placing the left fingers on the right TMJ will cause a strong indicator muscle to weaken. This crossed TMJ TL is negated by pushing the hyoid laterally to either the left or the right. The side of treatment is indicated by the direction in which the hyoid negates the crossed TMJ TL. In other words, if the crossed TMJ TL is negated by pushing the hyoid to the right, the right TMJ is treated. Correction of the problem involves manipulating trigger areas in the indicated TMJ while holding the hyoid toward that side.

When appropriate corrections are made, chewing will strengthen any weak muscle and negate an ICV challenge.

FRONT - BACK SWITCHING

There are two types of front - back (or anterior - posterior) switching. These are 1) tonic labyrinthine reflex (TLR) problems relating to the supine and prone positions and 2) pelvic flexion switching.

TLR SUPINE AND PRONE

TLR supine and prone problems have been discussed in previous papers (5) (6) but a simple screening process for these patterns has been identified. Whenever there is a problem with TLR from supine or prone positions, there will be a positive TL to acupuncture head point TW-23 on the lateral part of the eyebrow. This TL will only be seen when testing a weak muscle and *not* a strong indicator muscle.

Screening for a TLR supine and prone problem is easily performed by TLing each

TW-23 while testing a weak muscle. If the weak muscle strengthens, further TL each endocrine NL (i.e., thyroid, adrenal, reproductive) ipsilaterally. One or more of these reflexes will TL to create a strengthening response of the weak muscle. This is called an endocrine set point problem.

Two hand TL to endocrine NL and TW-23 will cause a strong indicator muscle to weaken. This will usually be negated by a lateral flexion "C" curve of the spine, convex to the right (with the head and feet to the left.) Lateral flexion of the spine is related to acid - alkaline balance of the body. (7) If this lateral flexion, convex to the right strengthens negates the two hand TL, the two hand TL should also be negated by tasting alkaline ash minerals. (If it is not, there is either a K-27 or a hyoid pattern which must be corrected before continuing. This pattern is called "switching within switching" and these patients are among the most difficult we treat.)

The TLR supine and prone problem and the associated TW-23 endocrine set point problem are easily corrected by performing IRT on the right sacrospinous and sacrotuberous ligaments. To identify the need for this correction with the patient prone, simply challenge into these ligaments and gently jam the mortis joint. A strong muscle will weaken.

Correction is performed by gently tractioning the talus in the direction of opening the mortis joint during or immediately following the sacrospinous - sacrotuberous ligament challenge. This correction normalizes TLR supine and prone problems and negates the endocrine set point.

PELVIC FLEXION SWITCHING

Pelvic flexion switching is present when a change in muscle strength takes place when the pelvis is flexed. Although any muscle may be affected by pelvic flexion switching, it is best represented by an open ICV challenge being negated when the pubic bone is tilted headward. In fact, the open ICV is not corrected by pelvic flexion, but becomes switched to the other side as a Houston valve (HV) problem. In other words, the HV challenge is negative with the patient supine at rest, but it becomes positive with pelvic flexion just as the ICV disappears. Other muscle weaknesses may appear and disappear on pelvic flexion, but always use the ICV - HV pattern if the ICV is present since some muscle weaknesses are not affected by pelvic flexion switching.

If a HV is present on initial testing, it nearly always represents a switching problem. Correcting a K-27 or a hyoid problem will result in a positive ICV challenge and negation of the HV challenge. This should be done before proceeding when an HV is found in the clear.

Pelvic flexion switching is related to a disturbance somewhere in the abdominal cavity which creates an IRT type of problem. The exact area must be located. It can be readily identified by rubbing or stroking over the abdomen until an area is found which

strengthens a weak indicator muscle and/or negates the ICV challenge. IRT is performed over this abdominal area by having the patient place the hands over the area and gently tractioning the mortis joint. (In difficult cases, check IRT over the abdominal area(s) while simultaneously TLing the three immune circuits: the upper sternum, the lower sternum, and the spleen NL. Make additional corrections as indicated by IRT with two hand TL to the abdominal area and the immune circuit.) Following abdominal IRT correction(s), pelvic flexion will cause no change in muscle strength or weakness patterns.

A most common occurrence associated with pelvic flexion switching is a category 3 pelvic fault. This fault will be challenged according to Goodheart's latest findings. (8) That is, on the prone patient challenge under the ischial tuberosity towards the ceiling while simultaneously challenge the opposite L-5 (or L-4) spinous process toward the side of ischial challenge. A very effective short cut correction for the category 3 fault is to place the DeJarnette blocks according to the challenge and find and fix an IRT at L-5 (or L-4.) Correction of both the category 3 and the pelvic flexion switching will cause both corrections to hold much better. Rarely, correcting one of these faults will spontaneously correct the other.

RIGHT - LEFT SWITCHING

The right - left switching patterns are the outgrowth of the original findings of Goodheart which were mentioned previously. It was once thought that a patient should routinely be unswitched before treatment by simultaneously rubbing each K-27 with the umbilicus. It has become clear that it is far more important to identify whether or not a patient is switched, especially if the patient shows a recurrence of this pattern.

Advances in understanding the clinical implications of switching have demonstrated several other types of right - left switching. These include acupuncture head points small intestine - 19 (SI-19) and bladder - 1 (BL-1.) The remaining head points, GB-1, St-1, and LI-20 will also be discussed although they are not truly switching factors, but their examination and treatment is parallel to that of SI-19 and Bl-1 and placing them at this point is most convenient.

Switching is present when the TLR patterns of one ear up and the other ear down do not create normal flexor and extensor facilitation and inhibition. These TLR can be checked when the supine patient turns the head ninety degrees.

Another type of right - left switching is related to hyoid muscle balance. It was originally felt that a hyoid challenge was best corrected by muscle spindle technique to one of the hyoid muscles. It has become apparent that, because this treatment is highly unstable with significant recurrence, the hyoid switching is best thought of as an indicator of TMJ imbalance rather than as an entity in its own right.

SI-19 AND BL-1

TL to right or left SI-19 is related to a switching pattern which is akin to the psychological reversal pattern described by Roger Callahan. (9) As associated pattern is TL to right of left Bl-1. When present, these TL patterns will induce strength in any weak muscle or weaken any strong indicator muscle.

When SI-19 TLs, a parallel TL will be present in the ipsilateral quadriceps NL, abdominal NL, or both. TL will create a G-2 weakness but the addition of IRT talus challenge will induce a G-2 submax weakness. Correction of this switching pattern is by IRT while TLing the appropriate NL or NLs. If a psychological reversal is present, IRT as indicated will correct this pattern.

Similarly, Bl-1 TL is accompanied by TL to the ipsilateral sacrospinalis NL at the edge of the umbilicus. Correction is by IRT to this NL.

OTHER HEAD POINTS: GB-1, ST-1, AND LI-20

Thus far we have discussed TLing bilaterally to three of the six meridian points which begin or end on the head. It is expedient at this point to TL bilaterally to each of the remaining three acupuncture head points, GB-1, St-1, and LI-20 (or some charts say LI-21.) Although not technically fitting the criteria for switching, a pattern similar to that of SI-19 and Bl-1 is often found with these points. That is, TL to one of the points will strengthen a weak muscle. Subsequently, TL to an associated NL reflex will cause a weak muscle to strengthen or a strong indicator muscle to weaken.

If GB-1 TLs, check the liver and gall bladder NLs. If St-1 TLs, check the stomach NL, the pancreas NL, or the sinus NL. If LI-20 TLs, check the large intestine NL, the lung NL, or the parathyroid NL. Correction is by IRT to the NL(s) which are positive.

SUPINE HEAD TURN TLR

Previous papers have discussed the importance of the one ear down - one ear up pattern of TLR. (5) It is important to identify any improperly functioning TLR reflexes, not only as mentioned above in the supine and prone positions, but also in the side lying or one ear down - one ear up positions.

To ascertain normal TLR activity, find a weak muscle and identify whether it is a flexor or an extensor. The ICV challenge acts as a flexor on the right. Turning the supine head toward the side of an extensor weakness would create strengthening of that extensor. However, at this time in our unswitching routine, there should be only flexors weak in the supine position. Therefore, use a weak flexor. It should strengthen when the supine head is turned 90° to the opposite side. For example, a weak right pectoralis

major, sternal should be strengthened by turning the head to the left creating a left ear down TLR position. If this position does not strengthen the flexor, you must correct the TLR before proceeding.

The supine head TLR will be normalized by insalivation of one or more of the following: sugar, caffeine, or (rarely) inositol. The substance(s) which normalize the TLR will bring out a hidden TL to one or more of the following: the liver NL, the pancreas NL, the adrenal NLs. With the offender in the mouth, the TL will be negated by having both eyes focus on the ceiling. Still with offender in the mouth and the eyes focused, a hidden subluxation of C-1 can be found and adjusted. This procedure will normalize the supine head turn TLR. This type of switching is probably associated with the fact that TLR patterns are related to endocrine imbalances and sugar and caffeine (and inositol) can be viewed as endocrine stressors.

K-27 AND CROSSED K-27 SWITCHING

Two types of K-27 TL are possible: bilateral TL to K-27 (i.e., right hand to right K-27 and left hand to left K-27) and crossed bilateral TL to K-27 (i.e., right hand to left K-27 and left hand to right K-27.) In either case, a strong indicator muscle will weaken while the K-27 points are TLed. When chewing patterns and front - back switching patterns are corrected earlier, it is rare to find crossed bilateral K-27 TL to be positive.

The critical factor in K-27 switching is the type of weakness which the K-27 TL creates. If a patient started submaximal (G-2 submax) weakness is present, regardless of what other type(s) of weakness are induced, there will (almost) always be a positive TL to C-1 with the neck in extension. The correction is an IRT correction to C-1. Positive K-27 TL typically creates a G-2 submax weakness if the chewing and front - back switching patterns are corrected in the suggested order.

When K-27 TL induces a patient started to maximum (G-2) weakness without a G-2 submax weakness, the TL is negated by having the patient focus both eyes on a distant object such as the ceiling or mentally focusing on a target. Whichever type of focusing negates the K-27 TL will cause a hidden subluxation to TL and challenge, usually at C-1. Adjusting the subluxation with the same type of actual or mental visualization will negate the positive K-27 TL and unswitch the patient.

HYOID SWITCHING

A positive hyoid challenge is an indicator of a TMJ problem. The most common type of hyoid challenge is straight lateral, right to left or left to right. Rotation challenge or tilt challenge of the hyoid are infrequently seen, especially if the above order for unswitching the patient is followed. One can find which TMJ is related to a positive hyoid challenge by maintaining the positive hyoid challenge and having the patient TL

each TMJ to identify which one negates the challenge.

The two types of TMJ problems which are found related to a hyoid challenge are closing and wide opening problems. Each is corrected as described in the section about chewing. To review, a TMJ which shows positive TL on closing or clenching the teeth will be corrected by IRT to an area in the head and neck region, most often C-1.

A TMJ which TLs on wide opening is associated with digestive system imbalance which can be corrected by addressing visceral referred pain areas on the abdomen. Often the aggravation of the referred pain area by hot or cold will create a K-27 switching pattern which will be corrected by IRT to C-1. On other occasions, the hot or cold reaction will bring out a hidden subluxation of C-1, a sacroiliac category 2, or some other spinal area.

Following either type of correction, the TMJ will no longer TL in closing or wide opening, and the hyoid challenge will be negative.

DISCUSSION

Switching factors must be corrected prior to making other corrections due to the fundamental disregulation of postural control effects which switching represents. Consider the factors necessary to correct switching. Chewing problems are corrected by TMJ corrections. The importance of proper TMJ function on the entire body is well known, but look at the specific corrections which we make in relationship to basic postural control mechanisms. Closing and wide opening TMJ faults implicate upper cervical proprioception or sacroiliac proprioception. Altered TMJ proprioception related to the presence of IRT is corrected by flexing the atlanto-occipital area restoring normal feedback between the upper cervical and TMJ areas. Any TMJ problem can compromise the position of the temporal bone in which the effects of gravity are perceived.

TLR problems, in either the supine and prone positions or in the one ear up - one ear down position are directly associated with equilibrium feedback from the inner ear. The presence of pelvic flexion patterns represents inconsistent proprioceptive feedback from pelvic postural control reflexes. These same postural afferents from the pelvis directly affect local parasympathetic activity at the S-2 to S-4 segments and help to maintian autonomic control. The patient must deal with one set of imbalances with the pelvis in flexion and another set of imbalances with the pelvis in extension. The upright patient is "darned if they do and darned if they don't" and can probably find relief only when recumbent. Even then, the patient will constantly shift positions whether standing, sitting, or lying down and sleeping.

K-27 problems are corrected by normalizing upper cervical proprioception via IRT. The hyoid is the gyroscope for the position of the head and the neck and its correction implicates proprioception from the entire stomatognathic system.

SI-19 and Bl-1 relate to quadriceps, abdominals, and sacrospinalis muscle groups

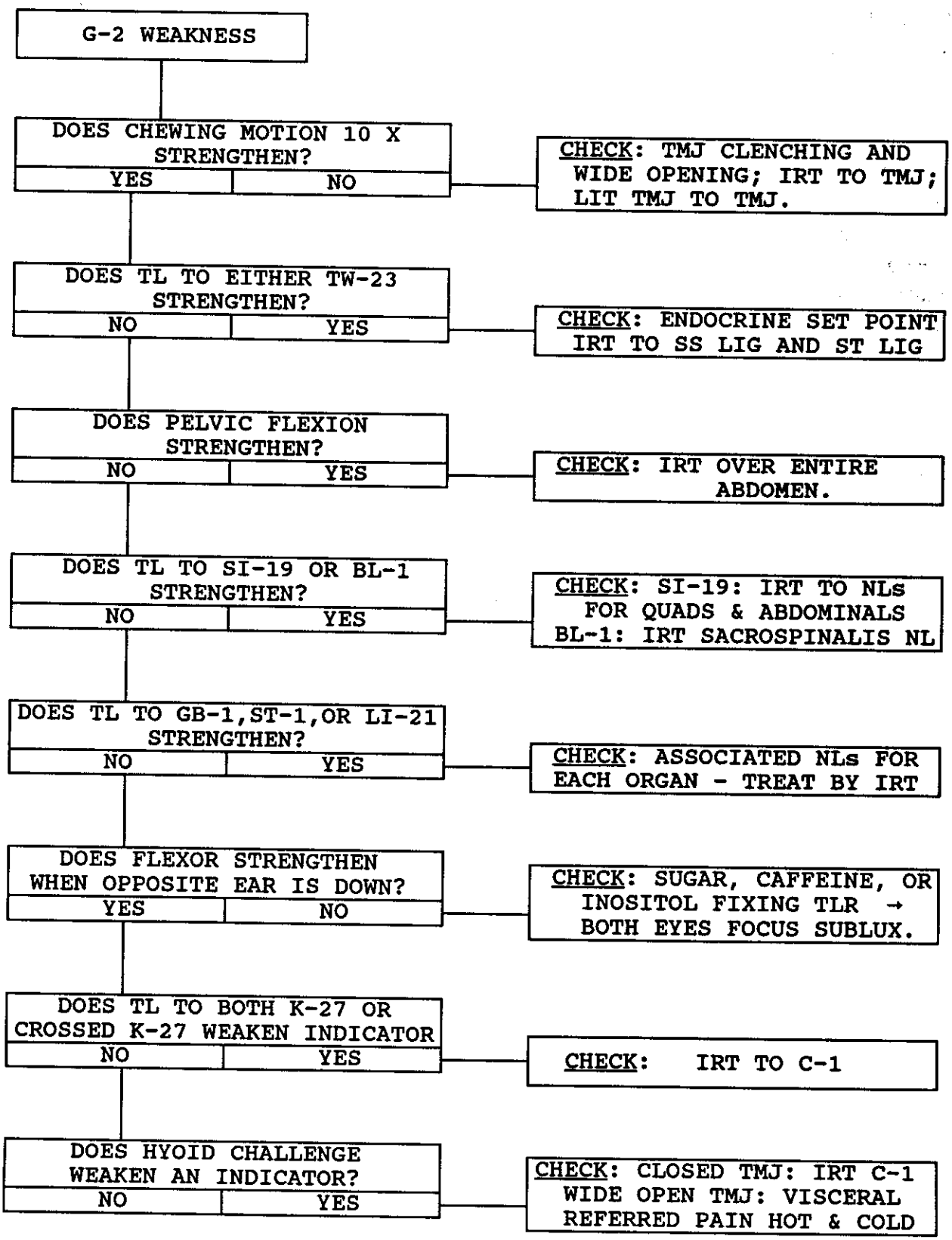
which are important muscles in maintaining integrity between the pelvis and the thorax in the upright position. Add the importance of correcting psychological reversal for lasting improvement in our patients, and we see the primary importance of these switching factors.

CONCLUSIONS

The importance of properly unswitching our patients prior to making other corrections becomes quite clear when we see the implications of switching to fundamental postural control mechanisms. To treat patients who are switched without these procedures is neurologically futile. In fact, the neurological importance of switching factors is so great that, if you could only fix one problem on a patient, switching should be that problem.

FLOW CHART FOR SWITCHING

Walter H. Schmitt, Jr., D.C.



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RECURRENT SWITCHING

SUBTLE DISORGANIZING EFFECTS OF TOXIC CHEMICALS, FOODS, AND NUTRIENTS

Walter H. Schmitt, Jr., D.C.

Abstract: AK procedures typically identify toxic effects of various substances when oral or nasal testing with the offender creates a weakness of one or all muscles. Subtle toxic effects may be found in many patients when exposure causes only a switching reaction to occur. Correction of switching with the offender in the mouth causes positive effects including a reduced need for other nutrients which are necessary only to counteract the switching created by the offender.

INTRODUCTION

A tenet of applied kinesiology has been that a substance may be tested by tasting or sniffing and its need or excess determined by the outcome of muscle testing. In general, if a weak muscle strengthens, it is assumed that the substance is compatible with the patient's needs and should be considered for supplementation. If a substance weakens any or all strong muscles, it is deemed unhealthy for the patient and avoidance is recommended.

No change in muscle strength on exposure is assumed to mean that a substance is compatible with the patient's physiology but no particular need is present. This may be due to a normal level of the substance in the tissues or merely a normal level circulating in the blood stream at the time of the test. In other words, a substance which causes no change may still be necessary to the patient in order to replace reserves but no acute need is present at the time of the test.

One of the most difficult questions the applied kinesiologist must answer is when to stop supplementing a nutrient when it causes no change in muscle strength on oral testing. Often, we are hesitant to remove a supplement from a patient's program just because it no longer strengthens a weak muscle. We fear that the patient may still have increased requirements for the substance and that its withdrawal will cause backsliding in the patient's progress.

On the other hand, it has been difficult to determine the point at which a nutritional substance becomes toxic and must be immediately withdrawn. We walk a delicate line between over and under supplementation with many patients without an adequate tool to assess subtle changes in our patient's physiology regarding the status of nutrient intake.

DISCUSSION

3 TYPES OF TOXIC REACTIONS

It appears that there are three levels of excess that the nervous system monitors and which we can observe using muscle testing. In order of severity from most to least, a toxic substance will cause one of the following when tested orally:

1) a general weakening reaction - all muscles;
2) a weakening of one or several muscles only, or a weakening on therapy localization (TL) to the neurolymphatic reflex (NL) of these muscles;
3) a switching (or related) reaction.

Most practitioners of AK are aware of the first two situations. We have recently observed many patients who react to toxic substances *only* by a switching reaction. That is, no individual or group of muscles weaken on oral or nasal testing, but an obvious switching reaction occurs upon exposure to the toxic substance.

RECURRENT SWITCHING PATTERNS

In an accompanying paper entitled "Switching" in these *Proceedings*, procedures are outlined for identifying and correcting switching problems of several types. (1) These switching patterns are often the only evidence of a substance's toxicity to the patient. Switching patterns may be created by foods which the patient has stopped consuming or which are still being eaten. Likewise, switching may be created by supplements which have been stopped or which are being taken long after their effectiveness has passed.

The switching patterns most likely to appear on exposure to subtle toxicities are:

Both K-27
Acupuncture head points
- **Triple Warmer-23**
- **Small Intestine-19 (SI-19)**
- **Bladder-1 (Bl-1)**
- **Other head points: GB-1, St-1, LI-20 (not true switching)**

Hyoid
Pelvic flexion

The switching pattern which will show up is usually one which has been previously corrected, either during the present treatment or in the past.

The following briefly reviews the unswitching procedures for each of the above:

Both K-27 - Injury recall technique (IRT) to C-1
TW-23 - IRT to associated endocrine NL
SI-19 - IRT to quadriceps and/or abdominal NLs
BI-1 - IRT to sacrospinalis NL (at umbilicus)
Other head points - IRT to associated NL
Hyoid - Closing or wide opening TMJ faults
Closing - IRT to C-1
Wide opening - Visceral referred pain technique
Pelvic flexion - IRT over one or more abdominal areas (usually related to specific food irritants.)

In fact, any time switching is present, it is prudent correct the switching as previously discussed and then attempt to identify a substance which has caused the switching in the first place. Certainly if a switching pattern has recurred from one treatment to the next, it is of utmost value to figure what substance is recreating the switching pattern. As discussed in the accompanying paper, treating a patient without first correcting switching will almost always "push the problem around" rather than fix it. Therefore, if there is a subtle toxic effect of some substance which is recreating switching, it is in the forefront of the patient's best interests to identify it and neutralize it's effects.

THE AAA (PLUS SUGAR) APPROACH

Certain substances are most likely to create the subtle toxic effects of switching (including recurrence of any of the NLs related to the acupuncture head points.) This is true even following a previous correction and/or dietary change designed to treat the problems which they represent. We can screen for these using the "AAA" substances for screening. These are Arginex (Standard Process Labs), Antronex (Standard Process Labs), and aspirin. In addition, sugar is often found to create subtle switching effects.

Arginex - If Arginex strengthens, test the amino acid arginine for a generalized weakening reaction. (2) If this occurs, it will be negated by therapy localization (TL) to the thyroid NLs, the liver NL, and by a lateral flexion "C" curve, convex to the right. (3) Correct this by using IRT to the NLs, bilaterally, and by using IRT to the right sacrospinous and sacrotuberous ligaments.

If Arginex strengthens and arginine does not create a generalized weakening reaction, check for and correct switching patterns with arginine in the mouth.

Antronex - If Antronex strengthens a weak muscle, it implies an excess histamine reaction. Although this usually suggests allergies, Antronex often strengthens even after

desensitization and/or avoidance have been employed. When Antronex strengthens, test the amino acid histidine (precursor to histamine) for creating a switching reaction. Correct switching as indicated with histidine in the mouth.

Aspirin - If aspirin (or any NSAID) strengthens or weakens, it implies an essential fatty acid (EFA) problem. We always test lard and partially hydrogenated fat (we use Crisco shortening) on these patients and often observe a general weakening reaction or a number of specific muscles weakening such as those related to the liver, gall bladder, or pancreas. Treatment is by IRT to the reflexes which are found to negate the induced weakness with the offender in the mouth.

When aspirin or a NSAID strengthens, but neither of the above reactions are present, check for switching patterns with the substances in the mouth. Correct the switching pattern as described while maintaining oral contact with the substance.

In some cases, patients have been supplementing with EFA beyond a beneficial therapeutic effect. If there is no reaction to lard or Crisco and the patient has a history of EFA supplementation, check the EFA for creating a switching pattern and correct accordingly.

Sugar - The negative effects of sugar are legendary. Many patients consume what would be considered excessive amounts of sugar but no change in muscle strength is found on oral testing. Check these patients for switching with sugar in the mouth and you will discover many positive findings.

REPEATED NEED FOR NUTRIENTS - EXCESS SUPPLEMENTATION

As in the case mentioned above with EFA, many patients have overdosed with nutritional supplements, yet oral testing does not create general or specific muscle weakness. Unfortunately, we are having an ever increasing experience with minor iatrogenic supplementation excesses.

Similar imbalances are also seen by accumulation of normal dietary substances or by excessive intake of other toxic substances. These could include electrolyte imbalances, heavy metal toxicities, or poor quality fat ingestion as discussed above. For example, adrenal stress causes sodium - potassium imbalances. Likewise, many women using oral contraceptives are found to have copper toxicity even though their dietary copper levels are normal. The hormones cause the body to hold on to and accumulate copper.

An excellent clue that a patient is taking or has taken an excess of a nutrient is the observation that an opposite nutrient repeatedly strengthens the patient. In fact, anytime a patient still strengthens on a nutrient which has been consumed for what should be an adequate time, you must address two issues: 1) poor absorption in the small intestine and 2) an opposite nutrient or toxic substance has been overdosed and is creating a switching reaction. If the switching reaction is related to SI-19, it creates both problems.

The same pattern exists for neurotransmitters and their precursors. If a patient has

been taking a nutrient or medication which stimulates neurotransmitter activity, the substance may well cause a switching reaction.

The following pairs of nutrients are so-called opposites in that the consumption of one increases the need for the other. Many similar relationships may exist, but these are common examples.

STRENGTHENS	CAUSES SWITCHING	AND VICE VERSA
Vitamin C	Vitamin A	yes
Vitamin E	Vitamin C	yes
"B"	"G"	yes
Choline	GABA	yes
Choline	Dopamine	yes
Serotonin	Norepinephrine	yes
Sodium	Potassium	yes
Zinc	Manganese	yes
Zn, Mn, Mo	Copper	yes
Se, Cr, Mn	Mercury	no
Any metal	Any other metal	yes
Coenzyme Q_{10}	Phosphorus	no
Coenzyme Q_{10}	High acid ash diet	no

This list could go on and on. You must use your knowledge of nutrition and a little bit of imagination to figure out what substance is the opposite of the one which strengthens. Then check it for creating switching and treat accordingly. *Following the unswitching with the offender in the mouth, the original strengthening nutrient will no longer create a strengthening reaction.* The patient probably does not require its supplementation at this time.

Any nutrient which any patient has taken for a prolonged period of time should be checked for creating a switching reaction or recurrence of an NL associated with an acupuncture head point. Several patients who were taking so-called "cardioprotective" nutrients just as a precaution had nagging musculoskeletal symptoms. The symptoms resolved when it was found that these nutrients were causing a switching reaction and the patients were unswitched and discontinued the nutrients.

Fortunately, most patient's supplements are to their great benefit. However, iatrogenic switching from overused nutrients is not uncommon.

PELVIC FLEXION AND OFFENDING FOODS

Pelvic flexion switching recurrence is most often related to the consumption of a food which may or may not have a history of allergenicity. Pelvic flexion switching is

related most often to the ileocecal valve (ICV). Any food which irritates the ICV may cause pelvic flexion switching. This includes spicy foods, allergic foods, and even occasionally roughage foods.

Any patient with recurrence of pelvic flexion switching should have the reaction corrected and then be tested on foods to identify the offender which causes recurrence of the pelvic flexion pattern. Foods commonly eaten should be checked first, but any substance eaten in the past may have created a neurological short-circuit which must be reset. Once again, a good memory and a little imagination are useful in figuring out the cause of pelvic flexion switching recurrence.

The offender will be identified when insalivation of the substance causes a recurrence of an ICV challenge. With the offender in the mouth, flexing the pelvis negates the ICV challenge and a Houston valve challenge becomes positive. Identify and treat an area or areas of the abdomen with IRT and the ICV challenge and pelvic flexion reactions will not recur. Good judgement suggests avoidance of the offenders for at least a period of time.

CONCLUSIONS

Testing for switching with possible offenders has helped many patients reach a higher level of function when they were stuck on a plateau. The procedures discussed in this paper are simple and effective and have major impact in restoring normal neurological function in our patients.

SUMMARY OF PROCEDURES

1. Identify and correct all switching factors and any NLs related to acupuncture head points.

2. Test a weak muscle with gustatory stimulation with Arginex, Antronex, and aspirin.

3. A. If Arginex strengthens - test with arginine.
   B. If Antronex strengthens - test with histidine.
   C. If aspirin strengthens - test with lard and partially hydrogenated fat.

4. Arginine, histidine, or bad fats will either:
   A. Weaken in the clear - treat all negating switching factors and NLs with IRT.
   B. Cause a recurrence of one or more of the switching factors previously corrected. Retreat with the offender in the mouth.

5. Test as above with gustatory stimulation with sugar.

6. Anytime a nutrient strengthens a weak muscle, consider that an antagonistic nutrient is creating a switching reaction and creating an false positive muscle testing indication for its need.

7. If pelvic flexion was present - check for its recurrence with gustatory stimulation with various foods and retreat necessary with offending food in mouth.

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PERIPHERAL VISION TECHNIQUE

by

Dale H. Schusterman, D.C.

Abstract: This paper will explore the use of manual muscle testing in locating areas in the peripheral visual field that relate to body imbalance. The proposed neurology behind this phenomena will be discussed to help explain this new concept in body alignment. Also, the relationship between the pineal gland and peripheral vision will be examined and a new way of diagnosing pineal weakness will be shown.

It has long been recognized in applied kinesiology that moving the eyes in specific directions or specific ways could either access hidden patterns of imbalance in the nervous system or enhance treatment of those conditions. Thus far, the use of focussed vision has been mostly considered, in techniques such as eyes into distortion(EID), roll technique(PYRT), and cross crawl technique(1,2,3). The purpose of this paper is to discuss a phenomena found by stimulating the peripheral visual fields.

Research into this area was first begun after this author took a course called PhotoReading(tm)(4). The course teaches a set of techniques called 'whole mind reading'(not speed reading). One step of this process involves diverging the eyes to diminish focussed vision and allow the peripheral vision to take in the entire printed page in one quick glance, thereby allowing a person to input printed information at a rate of around 25,000 words per minute. Other parts of the process work on preparing the mind to receive the information, recalling the information, etc. This technique of peripheral learning is surprisingly effective. Advertisers certainly know the value of stimulating peripheral visual pathways. It is quite well known that top performing athletes have excellent peripheral vision and it is easily observed that children naturally use their peripheral fields as easily as their focussed vision. With all this in mind, a study of the peripheral visual fields in patients was begun.

Anatomy and Neurology

The retina of the eye can be divided into two general areas(Fig. 1). Towards the center of the retina is an area about 5 or 6 mm in diameter called the area centralis, which consists of the fovea, a pinhead size area of very densely packed cone cells, surrounded by the macula which also contains primarily cone or color sensitive cells.

The fovea, which makes up only about one thousandth of the retina is responsible for hard focussed vision and much research has been done to study the tracking or saccadic movements of the eye in relation to the fovea. The macula also provides good visual input although not as sharp as foveal vision. The rest of the retina is considered the peripheral area consisting mostly of rod cells which are less densely packed and respond more to light gradients. The peripheral area has been divided into various regions depending on the quantity and type of connections between the rods and their respective ganglion cells. This area is primarily considered the area of night vision due to the predominance of rod cells. If you place both fists out in front of you with arms extended, this should cover your foveal/macular vision and all else is the peripheral field(5).

The neurology of vision is quite complex. In a simplified discussion, light stimulates either the rods or cones of the retina which relay their signals to the bipolar cells attached to them(Fig. 2,3). The bipolar cells then synapse with ganglion cells of the retina which pass via the optic nerve through the optic chiasma where they finally end in the lateral geniculate body. Here they synapse for final relay to the occipital cortex where the main vision centers of the brain exist. This well established visual pathway accounts for only about 80% of the afferent fibers of the optic nerve(6).

The other approximately 20% of the fibers from the optic nerve supply primarily motor function. These fibers pass into the midbrain region: the pretectal region(pupil control), and the superior colliculus(postural control mechanisms)(Fig. 2,3). Duke-Elder states that these fibers "seem to be without any derivatives from the ...macula... and in man are associated with the primitive photostatic(light and posture) rather than the higher sensory functions of vision"(6). The superior colliculus receives fibers from the retina via the optico-tectal fibers, from the cortex via the cortico-mesencephalic fibers, from the brain stem and cord via the spino-tectal fibers, as well as fibers from the vestibular and extrapyramidal systems(7). In the technique about to be presented, the eyes are either elevated or lowered while focussed straight ahead. The center for conjugate vertical movements in the brain is also found "in the tectum or in the immediate vicinity of the superior colliculi"(8). Therefore, this midbrain area located just below the thalamus and upon which sits the pineal gland is very important in integrating visual motor and other sensory input with postural systems of the body. It is interesting that in pineal tumors there is often a paresis of vertical gaze(9).

Technique

The above neurology only serves as introduction and to set up a working hypothesis for the mechanism involved in the following procedure. Later, other

mechanisms will be discussed that might more clearly explain what is really taking place and in another paper a startling extension of this technique will be explored.

Begin the technique by examining the patient and choosing an area of imbalance to correct. This procedure may be done 'in the clear', but it is usually best to inform the nervous system why things are happening. This may be done by therapy localizing to a weak or inhibited area, locking in any weakness with Dr. Beardall's leg abduction techniques(10), insalivating a reactive substance, using a magnet to introduce a noxious substance to the system, having the patient visualize a stressful situation, etc.

Test for a strong indicator muscle in either arm and working preferably from strength, hold your outstretched index finger about 8-10 inches above their chest and ask them to follow your finger with their eye as you move it slowly towards the top of their head. At one point along the path there should be an observable change in the muscle strength(facilitated to inhibited or visa versa). At this point it is necessary that the patient not move their eyes or it will be necessary to start over. For those that use the leg abduction techniques this would be a good time to have the patient lock the legs to freeze this visual focus. If this is done and the patient inadvertently looks away, then it is only necessary to have them move their eyes in a vertical direction stopping anywhere along the way. Otherwise, if the patient looks away, you must start over. Have the patient gently put their finger on yours so that they can stare at their own finger tip and preserve their vertical focus point(VFP).

The next step involves activating the peripheral visual fields. Since this is a large area simply have the patient put their attention to the upper left quadrant, the upper right quadrant, the lower left quadrant and the lower right quadrant of the visual field. It is very important that they do not move their eyes from the VFP, but only their attention. One of the 4 quadrants will neutralize the weakness exhibited at the vertical focus point.

Now that the peripheral quadrant has been established(from the reference of the vertical focus point), it is necessary to take your outstretched index finger and slowly traverse the area of the active quadrant until one specific area is localized. The length of the index finger systematically wipes across the peripheral field until strength in the indicator muscle occurs. Then turn the finger 90 degrees and go over the active area again to find the exact point of peripheral activity. Now place the index tip at the active point(aimed toward the eyes) and have the patient move their eyes ONLY toward the peripheral finger tip. It is extremely important that they do not move their head or let their eyes wander during any part of the technique or it will be necessary to start over. With their eyes in this second or peripheral position ask the patient to gently expand their peripheral vision. There are several ways to say this so that people understand. "Without moving your eyes, try to see the entire

room." "Without moving your eyes, soften your gaze so that you can see the sides of the room." "Take in as much of the room as is possible from this perspective without moving your eyes." It is often helpful if you have a free hand to pass it in the peripheral space around the head to help them understand where you want them to put their attention. The treatment will be complete after only 5-10 seconds of this peripheral gaze. It is not essential that they expand their peripheral sight, but if not it will take a bit longer for the correction to occur.

Whereas it may take some time to master this technique and become comfortable with it, with practice the entire procedure can be done in much less than a minute. Simply find a point along the vertical axis that relates to something you are trying to fix, find a peripheral point that negates this vertical focus point and have the patient move only their eyes to this peripheral spot and expand their own peripheral sight. Occasionally there will be two or three and on rare occasions four different points in the peripheral field that relate to a specific area that you are trying to fix. Check the vertical axis to see if more points are active. If so, continue again as above. If not, proceed to the next item that you wish to address with the patient. It doesn't take long this way to fix several categories, subluxations, neurolymphatics or major cranial faults. This procedure works well on any structural or electromagnetic imbalance. It has been found that the only time a pattern of imbalance is not completely resolved with this technique is if there is a nutritional component that needs to be addressed or if there are other complementary adjustments that need to be made such as fixing a subluxation in different ranges of motion, weight bearing, stress recall, etc.

Once patients get over the awe of having their pain disappear from having just waved your hands over them, they usually report a heightened sense of well being, a greater sense of self awareness, a feeling of calmness and often they are slightly spacy or even sleepy. The reasons for some of these phenomena will be discussed later as we examine some of the mechanisms involved. Although this technique can be used for most imbalances, it is best used according to the patient involved. Not all people are cooperative to follow instructions and some are incapable depending upon eye function, etc. It will work on a person with one eye. For someone with crossed eyes it is only necessary to test which eye is active(right eye for right peripheral fields, left for left) and proceed accordingly.

Discussion

There are several possible explanations for this peripheral vision technique. The peripheral retinal nerve fibers maintain their locale in the optic nerve as it passes through the optic chiasma to the lateral geniculate body where it synapses before travelling to the anterior portion of the occipital lobe. It is unlikely that this is the

pathway involved in this phenomena unless there is efferent stimulation from the occipital cortex back into the superior colliculus as previously discussed through the cortico-mesencephalic fibers.

It seems likely that the midbrain area is involved in this correction since the center for conjugate vertical movements is here and vertical movement is necessary to activate the process. One very interesting aspect is that the VFP will two-point or counter therapy localize to one point along the spine. The spine appears to be represented in this vertical gaze from bottom to top. That is, the sacrum and lumbar spine is at the lower part of the vertical gaze and the cervical spine is at the upper (Fig. 4). This does suggest that some aspect of spinal dynamics is being accessed when the eyes are raised or lowered in a vertical direction and focussed on the point of muscle inhibition. (One way of simplifying the procedure is to lock in both the VFP and this correlating spine two-point reflex using the leg abduction technique. If this is done it doesn't matter what the patient does with their eyes. They will only need to focus at any point while the active peripheral point is found). Also with approximately 20% of the optic nerve fibers(mostly motor) going into this region there is further activation which sends postural resetting signals to the eye muscles(cranial nerves III, IV, and VI) and the neck muscles(and presumably the entire spine) via the tecto-pontine, tecto-bulbar and tecto-spinal tracts(10).

There is a small organization called the Embudo Center near Taos, New Mexico that gives workshops to enhance peripheral vision(12). They teach a variety of techniques, but the main one is called 'NightWalking'. They place a 10 inch rod on the front of a baseball cap and you are instructed to focus on the small ball at the tip of this rod. Then, without moving your eyes from this ball they take you on 2-4 hour walks through the desert both during the day and at night. This forces you to use your peripheral sight since foveal/macular vision is preoccupied with the tip of the rod. Much could be said about this fascinating experience, but to the point of this paper several interesting things were observed. First, testing several other participants before and after a peripheral walk showed all subluxations, categories, cranial faults and muscle weaknesses to disappear after even a 20 minute walk. All of the distortion patterns did return however, later in the day. Second, a very common syndrome occurs for most people after several hours of this type of peripheral walking which is that the hands and feet swell. Upon testing it was found that the pineal gland was weak. There was also a reflex between the posterior pituitary and kidney possibly suggesting the activation of antidiuretic hormone (ADH) but this was negated by the pineal reflex. It is also interesting that the pineal may regulate the amount of aldosterone produced by the adrenals(13).

What all this suggests is that consciously using peripheral vision stimulates the pineal gland, hence the euphoric feeling from NightWalking(much as is experienced

in meditation), the momentary energy expansion which negates structural imbalance and the swelling of the extremities which was negated by the pineal. All this led to further study of the pineal.

Goodheart noticed many years ago that exposure to darkness would exhibit muscle inhibition if the person had a pineal weakness(14). It is well known that melatonin from the pineal is stimulated in response to darkness(15). Vreeland in his paper on the pineal and the limbic system discussed the neural connections to the pineal gland(16). The area that is most interesting in this instance is the autonomic supply of the pineal, particularly the sympathetic innervation. Once the rods and cones have been stimulated, the sympathetic signals from the ganglion cells in the retina go to the hypothalamus via the retinohypothalamic tract(17)(Fig 5). After a synapse at the suprachiasmatic nucleus(SCN) and then the paraventricular nucleus in the hypothalamus, the signals travel down into the thoracic spine between C8 and T5 to synapse at the intermediolateral cell column with the preganglionic fibers of the sympathetic chain. These fibers travel up into the superior cervical ganglion(SCG) where they synapse with the post ganglionic fibers that enter the skull and eventually pass on to the pineal body. There are also parasympathetic and direct cortical innervations to the pineal, but these are not appropriate to this discussion. What is important here is that "through this complex series of neurons the **retinas are functionally related to the pineal gland**"(18) and "the sympathetic neural connections between the SCN and the pineal gland must remain intact in order for the pineal to function in its normal capacity"(17).

What has been discovered is that placing a tablet of pineal substance on the tongue or using a magnet with the pineal substance will negate the VFP. Also turning out the lights will negate the weakness and placing pressure into one or the other sides of the upper anterior neck over the SCG will also negate the muscle challenge present with the VFP. Using tryptophan, tyrosine and other cofactors does not seem to negate the reflex. Therefore, it seems that this technique of using peripheral vision to correct imbalance in the body uses the pineal system as well as the mid brain to effect the change. It is interesting that the pineal body sits right on top of the superior colliculus. Since the pineal relies on neural input to stimulate its endocrine activity, activating this peripheral visual neurologic reflex can have a dramatic systemic effect through the nervous system as well as the endocrine system. This technique allows a person to correct an imbalance through their own visual effort.

Another way of diagnosing a patient that has a pineal disturbance is to have them focus straight ahead, soften their gaze, put their attention into the periphery and then test an intact muscle. They will test weak and this should correlate with standard testing in darkness. This can also be done by having a person focus at the

end of a long hallway and have them walk down the hall without moving their eyes from the point of focus. After several steps they should test weak. Sometimes a person who does not weaken when they are quickly exposed to darkness, will weaken if they also go into a peripheral state in the darkness and this should help find hidden pineal problems. Not all pineal imbalances need nutritional supplementation but often need some type of energetic support since the pineal gland relates to biomagnetic, geopathic, psychic and other energies as well as to biochemical pathways(18). This will be discussed more in another paper.

Generally, people will focus away, posture themselves away, or look away from pain and discomfort. This is human nature. What we see with focussed vision is what the conscious mind chooses to see. Peripheral vision, however, is self vision. The more aware we become, the greater our peripheral awareness. Psychologists know that one of the best ways to improve a persons self esteem is by enhancing their peripheral awareness. This may be why children with their natural peripheral sight have such innocence. In a sense, this technique has a person look back into the area of themselves that they looked away from, in consciousness, that relates to the area being worked on. It is akin to removing a blind spot to self, a blind spot in the nervous system.

Summary

The peripheral visual system can be accessed using applied kinesiological techniques in a way that can correct body distortion. This quick and effective method seems to work through the action of the pineal and the midbrain and possibly other channels.

1. Have patient focussed on something that needs correction.
2. While testing an intact muscle run your finger from the bottom to the top of their visual field stopping at the point of weakness(VFP). Maintain this focal point(or lock it in with the legs and find a spinal area correlating to the VFP and lock this in as well).
3. Have the patient place their attention, NOT their eyes, at each quadrant of the visual field to find which area negates the weakness.
4. Run your finger through the active quadrant until you can zero in on the specific peripheral reflex point.
5. Have the patient move their EYES ONLY to the specific point in the periphery that you have found.

6. Ask the patient to relax their vision and without moving their eyes try to place their attention to the sides. In 5-10 seconds the correction will be made.
7. Check to see if another VFP can be found and continue.

Peripheral Vision Technique, Schusterman

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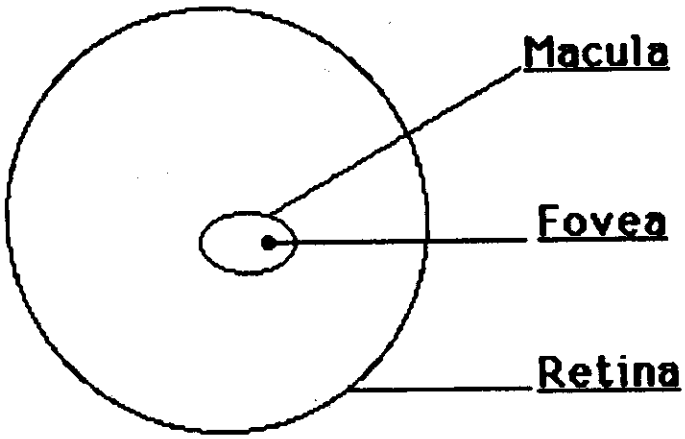

FIGURE 1

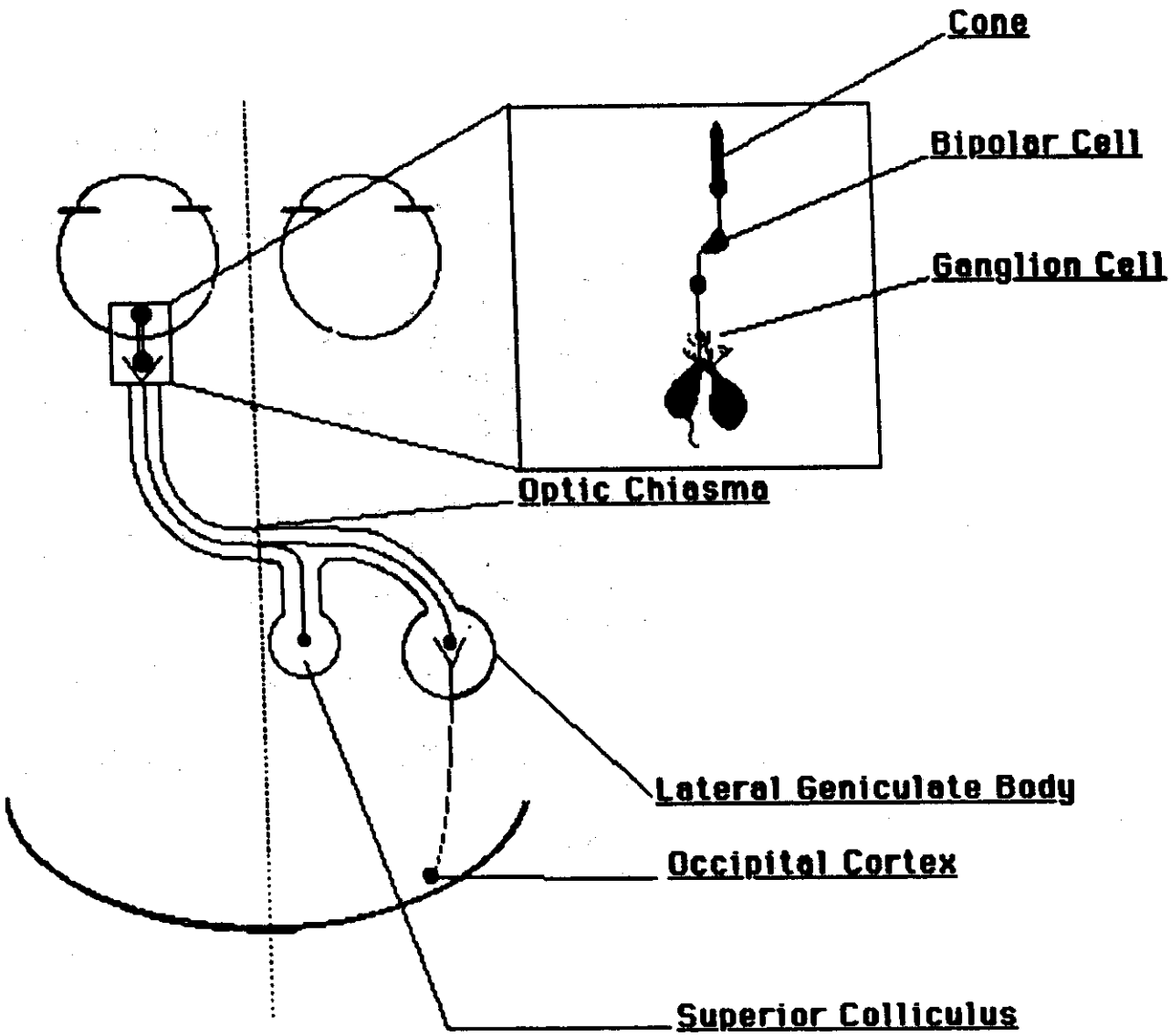
Cone
Bipolar Cell
Ganglion Cell
Optic Chiasma
Lateral Geniculate Body
Occipital Cortex
Superior Colliculus

FIGURE 2

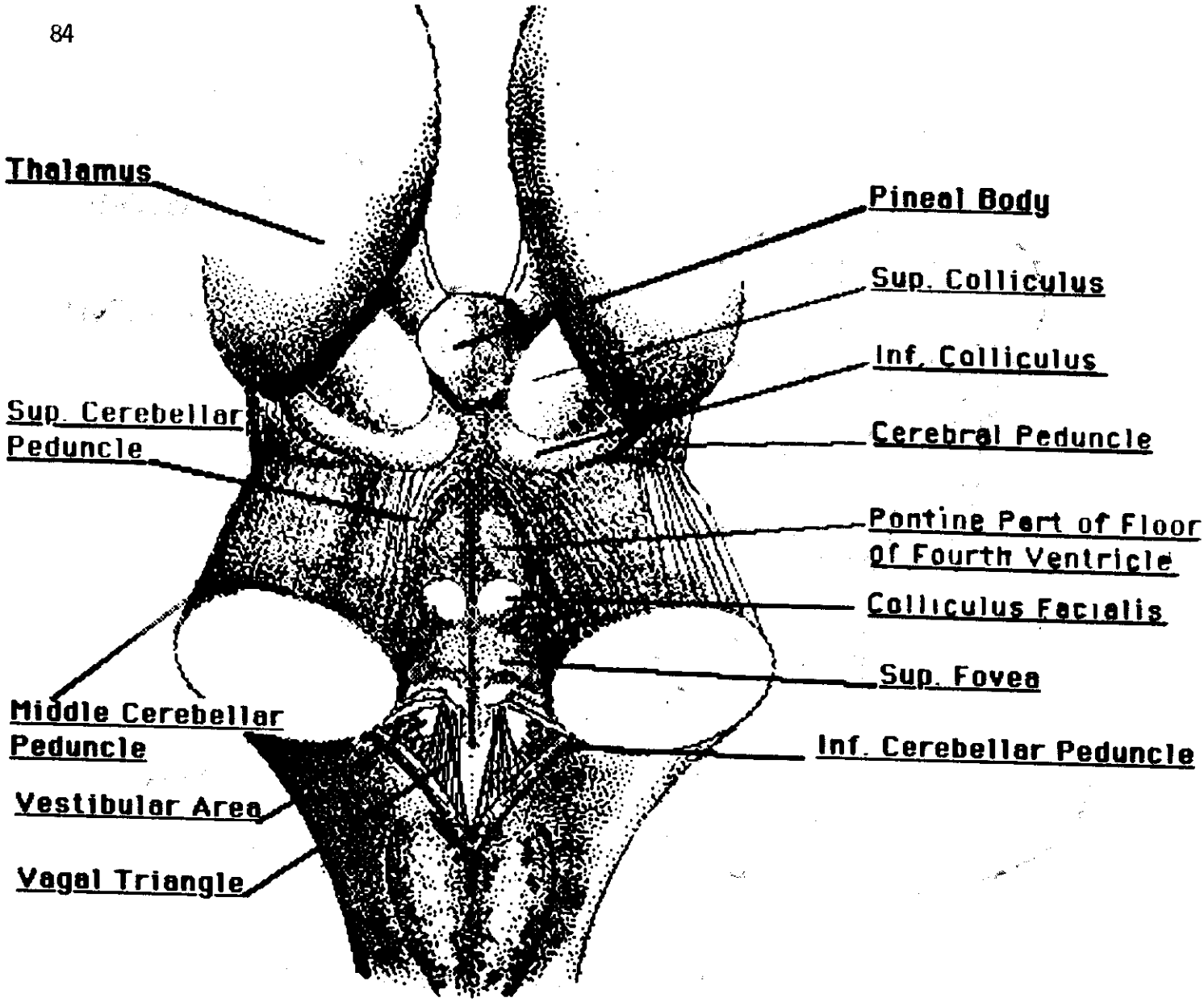
Thalamus
Pineal Body
Sup. Colliculus
Inf. Colliculus
Sup. Cerebellar Peduncle
Cerebral Peduncle
Pontine Part of Floor Of Fourth Ventricle
Colliculus Facialis
Sup. Fovea
Middle Cerebellar Peduncle
Inf. Cerebellar Peduncle
Vestibular Area
Vagal Triangle

FIGURE 3

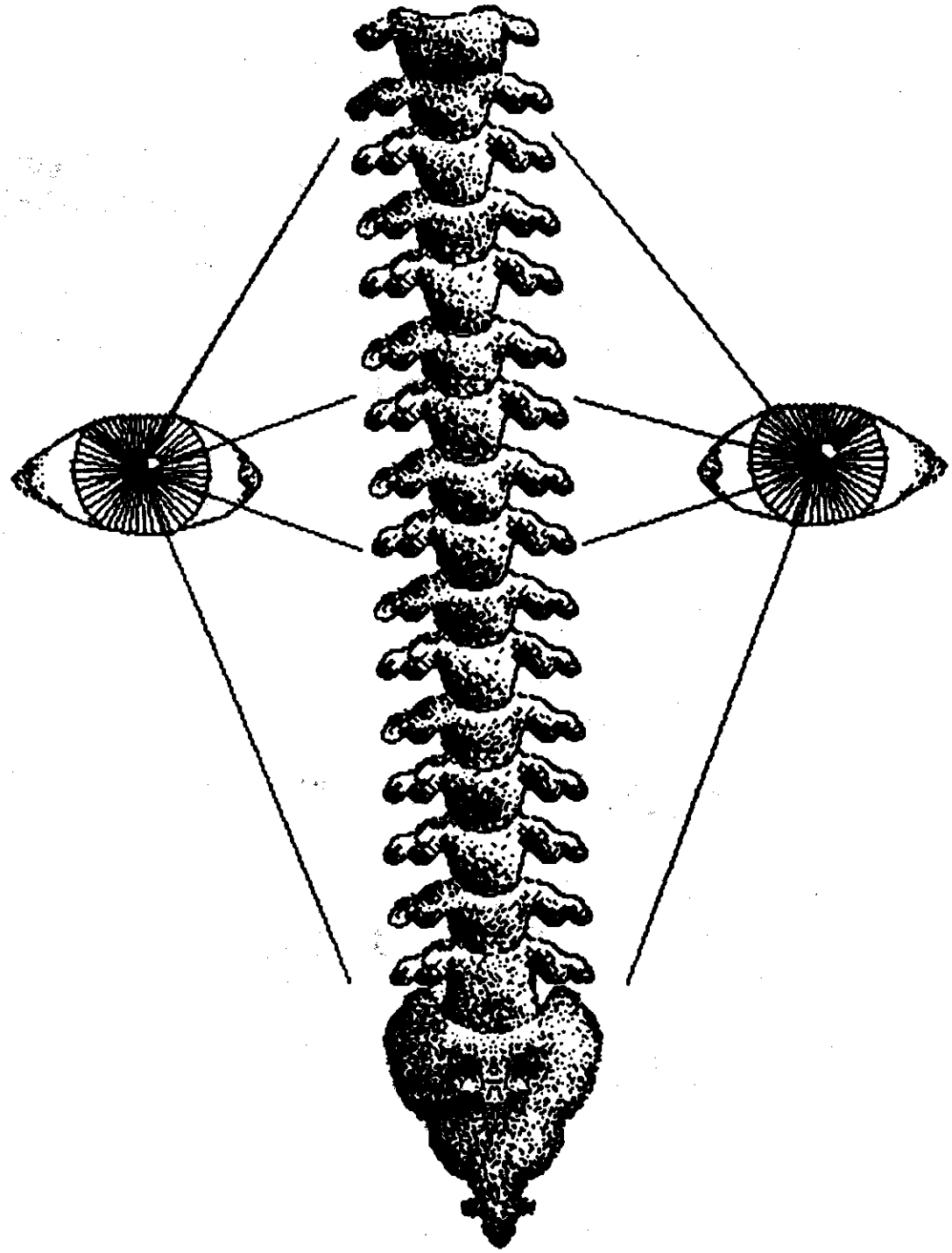

FIGURE 4

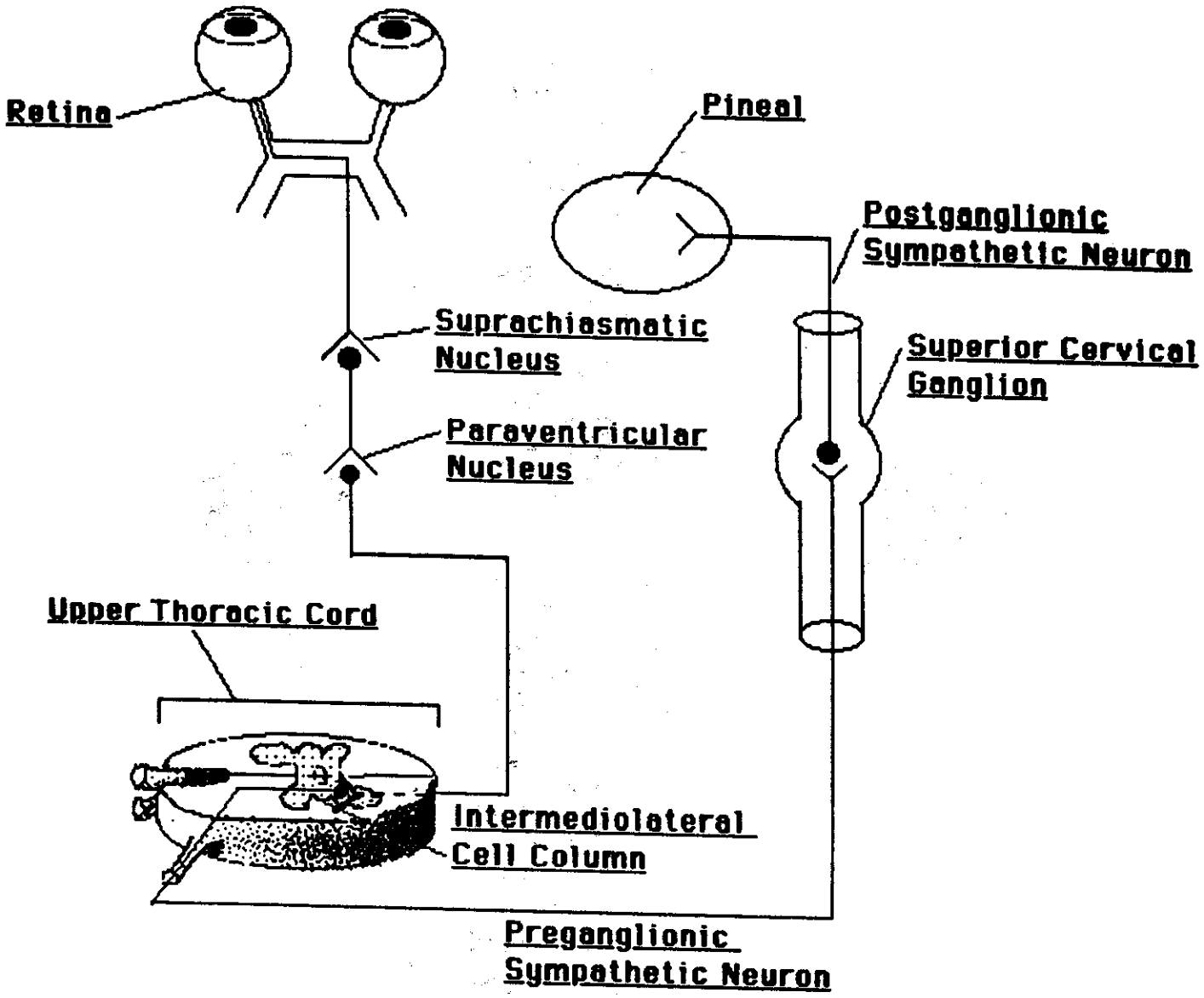
Retina
Pineal
Postganglionic
Sympathetic Neuron
Suprachiasmatic
Nucleus
Superior Cervical
Ganglion
Paraventricular
Nucleus
Upper Thoracic Cord
Intermediolateral
Cell Column
Preganglionic
Sympathetic Neuron

FIGURE 5

INDEX

* Diplomate
** Material in this paper does <u>not</u> conform with the ICAK Status Statement