A comparison of symptom survey nutritional analysis and analysis using Bioresonance and Kinesiologic testing as utilized by CPK (Chiropractic plus Kinesiology) practitioners.

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Trimester: Fall 2002
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Abstract

Background: Although much research supports the use of vitamins, herbs and other supplements there is no clear consensus on how to assess chemical deficiencies of a patient. Many practitioners have used patient symptom surveys for years, in addition alternative and traditional practitioners alike are turning to other methods of finding patient chemical deficiencies such as Kinesiology.
Objective: To compare symptom survey nutritional analysis and analysis using Bioresonance and Kinesiologic testing as utilized by CPK (Chiropractic plus Kinesiology) practitioners.
Setting: Logan College of Chiropractic, Chesterfield, Missouri.
Participants: One chiropractic student examined 20 freshman student patients.
Method: A symptom survey was completed by each patient and promptly entered into a computerized nutritional program used by the college by a student not engaged in conducting CPK testing. The student examiner utilized CPK technique in determining which supplements the patient showed a deficiency for. The CPK data and computer-analyzed symptom survey results were then compared.
Results: The data collected from the two forms of analysis differ greatly. It is difficult to find any correlation between CPK test results and those from the symptom surveys.
Discussion: These two forms of testing likely measure different parameters. CPK analysis tests a physiologic need whereas a symptom survey assesses a patient's self-perception of symptoms and supposed correlation with nutritional needs. Validation of the CPK analysis and the symptom survey independently in terms of agreement in and of themselves still needs to be performed.

Introduction

With the growing knowledge base of nutrition and vitamins in general it is of prime interest to find out how these substances are best utilized, assessed and administered to patients. Bioresonance and kinesiologic approaches, although highly utilized among alternative practitioners have little in the way of formally published research to support efficacy. With the growing public interest in the pursuit of optimum health, and in light of the rising expense of health care, popularity of prevention and nutritional treatments is exploding. Many are turning to alternatives with vitamins, minerals, herbs, and the like being used with ever increasing proportions. This nutritional technology seeks to improve human performance on every level

from longevity to athletics. More and more people are finding reasons to invest in nutrition in one form or another.

Background

Doctors of all kinds have long sought the best way to help their patients achieve optimum health and overcome illness and many have turned to nutrition for the answers. The challenge is to find ways to prevent and protect society from the onslaught of degenerative and malignant diseases, and since most diseases have nutritional consequences this is a prime category for seeking answers[1]. The literature is rampant with attempts to stave the leading causes of morbidity and mortality by seeking out the roots of heart disease and cancers. There is great potential for this type of research, and these modalities to explode in the coming years. Although as always, clinical practice will likely be miles ahead of many things in print.

Jacob notes that there are no techniques for assessment currently available that meet the needs of nutrition-support professionals, yet the future is promising[2]. Surveys have shown that malnutrition is present in up to 50% of all hospitalized patients. Hall suggests that it is critical that ALL patients receive a nutrition screen, and when needed, a comprehensive assessment[3]. Nearly everyone seeks effective protection from dying at an early age from the epidemic increases of degenerative, chronic, toxic and autoimmune illnesses, indeed, ways to protect and detoxify the body are in high demand.

Purpose

When seeking out how to work with individual biological uniqueness, identifying interactions of positive and negative nature with vitamins and herbs is paramount to clinical success. Choosing the most appropriate intervention quickly, safely and effectively is a challenge for every practitioner. It is our desire to provide some research in that direction. This could provide some answers as these complex scenarios have the potential to be quickly and easily sorted out using bioresonance and kinesiologic methods like CPK. In fact in all my searching, nothing and no-

one has put it all together quite like Dr. Dowty the founder and originator of Chiropractic Plus Kinesiology (CPK). It is proposed that someday these approaches may replace many conventional methods. In fact, in other countries such as Germany and Russia where members of the International College of Applied Kinesiology include hundreds of medical doctors, these types of methods have already begun to do so.

Review of the Literature

There is no one best approach for nutritional analysis found in current literature. There is even much discussion as to the necessity of analysis for the general population. Several dietician course books state that vitamin and mineral deficiencies are relatively uncommon in our society[6]. However, it is equally simple to find countless research articles on how to better assess nutritional status in all age groups. Several authors imply the importance of nutrition checks and the importance of micronutrients. Calfas, Zabinski and Rupp report "poor dietary... habits account for 300,000 deaths per year[7]." Hall sites several surveys estimating malnutrition present in 50% of hospitalized patients[3].

While many physicians may see the importance for nutritional testing, several drawbacks exist. To get the most reliable assessment of nutrition a variety of types of tests must be used[8]. This variety of tests also necessitates a greater expense and time spent waiting for results[10]. It is of paramount importance that primary care providers have quick, accurate and efficient assessment tools[7]. Choosing tests is also a challenging task. Different tests reflect inconsistencies due to recent dietary intake or body tissue stores. Interpretation of these tests is made especially difficult due to metabolic differences in subjects, differences in daily intake, as well as a shortage of good age, weight, and sex specific reference charts. Using function-based methods of assessment can minimize many of these problems[2].

When reviewing some of the commonly and not so commonly used methods of nutrient assessment, we found commonly used methods include clinical chemistry, symptom surveys and diet histories. Some less commonly used methods are Applied Kinesiology (AK) and hair

mineral analysis. There is as of now no formally published research on Chiropractic Plus Kinesiology (CPK).

Clinical chemistry, or blood analysis, is perhaps the most widely used method of nutritional assessment in the medical field[11]. This may be due to the high objectivity of the test[11] as well as the belief that blood testing measures more variables than any other test. Clinical chemistry is inexpensive for the patient since most insurance companies will pay for this service. However, drawbacks do exist. For instance, blood chemistry as a vital aspect of the organism may be the last to change. In addition sometimes, analysis varies from lab to lab. Some physicians believe that blood tests only refer to the specific condition of the body at the time the blood was drawn and at the specific site. This would not help understand the global nutritional status of the patient[11]. Pressman and Adams also caution that different parts of the blood test need to be given more weight than other parts in considering outlying results. For a number of vitamins, further functional studies must be performed to give indicators of tissue reserves of the tested nutrients[13].

The symptom survey or nutritional assessment form is another widely used method of testing for nutritional status. These forms may be quite extensive covering information from food diaries, family history and social history[12]. These forms are simple for the physician and use a clinical approach that is easy to understand[1]. These forms cover many aspects of living and can be filled out ahead of time by the patient or a caregiver. However, it is often difficult to gather honest information. For instance, it would be best to have a food diary kept on every trace of nutrient that is eaten. It is difficult to have such exact cooperation from the patient. It is possible instead to have the patient recall what was eaten, but some small additives are often forgotten. It is also foreseeable that eating habits are changed since the patient is aware of the doctor's watching[12]. A similar problem can also appear in blood testing. As holidays come and go along with birthdays, anniversaries, and vacations, eating habits change. Really, this leaves the food diary as a simple snapshot in time and not a total view of the patient as a whole[14]. To make a thorough analysis, many physicians also perform body fat tests, and take other measurements in addition to blood tests[15]. This thoroughness can be cumbersome and may not be worth the extra time and effort. The chronically or critically ill patient may also cause some further difficulties with

nutritional treatment. As a result of systemic diseases and absorption problems, some vitamin intake may need to be lifted to many times above the recommended daily allowance (RDA) [16]. This could be difficult for a clinician following normal written dietary information to make the appropriate clinical decision. This is often the case with those using a symptom survey.

An increasingly popular nutritional assessment tool is muscle testing – in particular, Applied Kinesiology (AK). AK uses the premise that the body is a complex electrical system that will show certain meridian systems or muscles to be operating improperly when specific nutrition is not present[11]. A suspected nutrient is placed in the mouth and a previously weak muscle will show as strong if the correct nutrient was used[17]. AK is relatively quick and inexpensive. Many physicians report great success with its use. However, it does not always show nutrient deficiencies that would correlate with a previously understood nutritional pathway. This may worry the physician that is more sensitive to published literature and recommendations. Some studies show good inter-examiner results but their methods were not fully dictated. Other studies show no inter-examiner reliability and even poor reliability with repeated tests on the same patient[18].

Hair analysis is perhaps one of the most noninvasive and least expensive assessments for evaluating protein intake and trace mineral levels. The analysis shows a reliable picture of this nutrient status within the past three months of the patient's life[11]. Hair is clipped from the nape of the neck and is then sent to a lab. The Journal of the American Medial Association recently published a study that questioned the reliability of hair analysis when they found excessive variability between laboratory results[19]. However, Mercola asserts that the study was flawed in its use of labs that were unregulated and practiced illegally. He also states that the authors were biased and didn't even adhere to proper testing protocol. Little is known about hair analysis. Many more studies need to be done[20].

Chiropractic Plus Kinesiology (CPK) is a combination technique of several established chiropractic techniques including AK. There has been no formal research published to date on CPK, however, many clinicians using this technique are finding promising results. The goal of the developer of CPK, Dr. Dowty, was to develop a "no more excuses practice". CPK allowed

him to do this by integrating principles of AK, CK (Clinical Kinesiology), SOT (Sacro-Occipital Technique), Toftness Chiropractic System, and Electronic Meridian Therapy or Acupuncture.

The first "oddity" from traditional chiropractic that some might recognize in CPK is the use of a Toftness type resonating instrument. The Resonator used in CPK is a biofeedback device that is made of a brass ring with a mylar or lexan type membrane known to concentrate microwave frequencies as used by NASA. Dr. Dowty has correlated its function with the change in response during manual muscle testing of applied kinesiology. Alternative practitioners model the Resonator after rubbing plates that have been in use for centuries. Practitioners rub their fingers on the smooth surface looking for a change to stickiness indicating a resonate match[5]. This is related to a method of diagnosis known as Psauoscopy, defined in Dorlands Dictionary as, "a method of physical examination done by passing the ball of the index finger back and forth lightly over the margin of an abnormal area. Over the pathological area the finger seems to encounter greater resistance and the skin seems more tense and less supple[22]."

The next part of CPK that seems to diverge from the norm is the use of hand modes. Alan Beardall first observed hand modes in 1978 while he was utilizing AK muscle testing. His hand position "codes" made it possible to quickly and easily differentiate between bone or muscle, chemical deficiency or toxicity, emotional stress and acupuncture influences. Placing the thumb pad to the pad or nail of an adjacent finger made each mode. This was especially effective at showing causal relationships. Hand modes need not seem strange or magical. Dr. Dowty explains that with the bioelectric nature of the human body, each appendage can function as antennae to both transmit and receive subtle energy signals. It is very easy to understand if one remembers the days of "tuning in the rabbit ears antennae" for improving older TV reception. The remaining three techniques utilized, AK, SOT, and acupuncture are either relatively widely used in the chiropractic profession and/or well researched.

Perhaps the real genius in CPK is the merging of these techniques and the simple filing system used in diagnosis and treatment. The acronym SCOPE is used to identify the files that organize the multitude of tissue modes determining the causes of the many body dysfunctions. The groupings of Structural, Chemical, Organ/viscero-somatic, Psyche/stress, and Electrical

dysfunctions make for easy usage and assessment by means of hand modes. The brain and rest of the nervous system understand this simple, computer-like filing system and release information in abundance. The questions we ask as clinicians are already being answered, we just need to learn to speak the right language[9].

Some authors make a charge for requirements that are very difficult for most nutritional assessment methods to fill. Harrison states, "the focus needs to be on early indicators of deficiency and risk[10]". Underwood, when talking specifically about vitamin A, suggests the extreme difficulty of finding deficiency or toxicity when clinical signs and symptoms are not present. It is easy to assume that other nutrients would have similar problems associated with them. Underwood further asserts that "...a systemic approach to the assessment and maintenance of optimal nutritional health... will have a profound effect on health care delivery systems[21]". The question remains – How will we be able to accomplish this? We hope to show that through function-based methods like CPK we can find these deficiencies and toxicities that Underwood expressed[8]. This research is necessary as Jacob and Milne write, "few suitable function-based methods [of nutritional assessment] are now available, and more research in this area is needed[2]."

Method

We used nutrition solely from Thorne Research. This was a conscious choice to simplify the testing. We also limited the nutrients tested to those relevant to the symptom survey rather than testing specialized formulas and products.

Twenty subjects were worked up by means of a simple symptom survey as utilized by Dr. Schoeb and taught at Logan College and then scanned with CPK methods of analysis to compare results.

Information was gathered from the patient prior to the clinical workup using CPK. The study was blinded so the practitioner did not have any access to the above analysis or communicate with the patient verbally during the examination.

Instrumentation and Procedure

Using the resonator as a bio-feedback device and testing the various nutrients on each patient's midline over the abdomen or chest, the practitioner determined each patient's needs as dictated by the CPK methods of screen testing.

Assumptions and Limitations

Certainly the obvious fact that the practitioner was able to see the patient and could use certain physical signs such as build, hair color, skin tone, and other factors such as these may have a small bias. We assume that these played no factor as these are not factors for the function of the resonator. We further assumed that the symptom survey is the best method to compare with, although as stated, there really is no gold standard for clinical nutrient analysis in general.

Results

Average of individuals need for Nutrients

Nutrient	Symptom Survey	CPK Analysis	Average Agreement
Vitamin A	0.6	0.9	0.5
B-1	0.6	0.55	0.55
B-2	0.45	0.2	0.55
B-6	0.55	0.65	0.5
B-12	0.25	0.4	0.5
Folic Acid	0.45	0.5	0.55
Niacin	0.55	0.7	0.55
Pantothenic	0.4	0.3	0.35
Vitamin C	0.2	0.95	0.2
Vitamin E	0.1	0.85	0.15
EFAs	0.7	0.95	0.65
Calcium	0.4	1	0.4
Iodine	0.5	0.35	0.45
Iron	0.3	0.75	0.15
Magnesium	0.2	0.85	0.25
Manganese	0.1	0.7	0.4
Digestive En	0.3	0.95	0.25

Chromium	0.7	1	0.7
Copper	0.25	0.6	0.55
MolyB	0	0.65	0.35
Selenium	0	0.65	0.35
Zinc	0.6	0.8	0.5

The data represent the summary of information gathered via the two forms of analysis. Recognizing that multiple forms of several nutrients were used for CPK analysis the probabilities of each showing up vary. With beta carotene and vitamin A being lumped together as vitamin A, thus a higher percentage of people would show a need for it. This is the same with B12 (Cobamide, Methylcobalamin) Vitamin C,(one with flavonoids, buffered, and non-buffered, powder and one with synergistic immune stimulating herbs) essential fatty acids,(DHA, Super EPA, Omega Plus, Tri-CLA, and Black Current) etc.(see appendix). With these and other compounding factors it is difficult to make meaningful correlations.

Discussion

The two forms of testing are most likely measuring different parameters, CPK analysis is testing a physiologic need based on bioenergetic response, whereas a symptom survey is assessing a patient's self-perception of symptoms and supposed correlation with nutritional needs. It is interesting to note how many people showed a need for things like EFA's, chromium and calcium. These seem to make sense with other doctors' research into these nutrients. CPK seemed to be more sensitive than the survey in detecting a deficiency. Although, as previously noted there are no real gold standards so agreement or disagreement of these two unknown methods of analysis lacks merit until the further validation is performed. Validation of the symptom survey and the CPK analysis independently in terms of agreement in and of themselves will be a worthwhile pursuit to backup this information.

Conclusion

Overall this study seems to show a high number of people who could use a great deal more nutrition to optimize their health through both methods of analysis. Since supplying a few of the basic priority supplements may change the picture altogether, a follow up study would be to make a supplement program for subjects and see what results they may get.

References

1. Goulet, O.: Assessment of nutritional status in clinical practice. Baillieres Clin Gastroenterol 12(4):647, 1998.

2. Jacob, R.A., Milne, D.B.: Biochemical assessment of vitamins and trace minerals. Clin Lab Med 13(2):371, 1993.

3. Hall, J.C.: Choosing nutrition support: how and when to initiate. Nurs Case Manag 4(5):212, 1999.

4. Lebowitz, M. Clinical indications for Thorne Research products. www.michaellebowitzdc.com

5. Gerber, R.: Vibrational Medicine For the 21st Century, the complete guide to energy healing and spiritual transformation. Pg.337-339 2nd ed. New York: Eagle Brook, 2000.

6. Shils, M.E., et al.: Modern Nutrition in Health and Disease. 9th ed. Baltimore: Williams and Wilkins, 1998.

7. Calfas, K.J., Zabinski, M.F., Rupp, J.: Practical nutrition assessment in primary care settings: a Review. Am J Prev Med 18(4):289, 2000.

8. Underwood, B.A.: Methods of assessment of vitamin A status. J Nutr 11:1459, 1990.

9. Dowty, Milton: Introduction Module. Chiro+Plus Kinesiology. 15, 2000

10. Harrison, G.G.: Monitoring micronutrient deficiency conditions. Public Health Rev 28(1-4):105, 2000.

11. Rabkin, R.: Analyze This. Vegetarian Times Mar, 2000.

12. Pressman, A.H., Adams, A.H.: Clinical Assessment of Nutritional Status: A Working Manual. 2nd ed. Baltimore: Williams and Wilkins, 1990.

13. Sauberlich, H.E.: Newer laboratory methods for assessing nutriture of selected B-complex vitamins. Annu Rev Nutr 4:377, 1984.

14. Joachim, G.: Sources of variability in the reproducibility of food frequency questionnaires. Nutr Health 12(3):181, 1998.

15. Ham, R.J.: Indicators of poor nutritional status in older Americans. Am Fam Physician 45(1):219, 1992.

16. Demling, R.H., DeBiasse, M.A.: Micronutrients in critical illness. Crit Care Clin 11(3):651, 1995.

17. Walther, D.S.: Applied Kinesiology: Synopsis. 2nd ed. Pueblo, CO: Systems DC, 1988.

18. Kenney, J.J., Clemens, R., Forsythe, K.D.: Applied kinesiology unreliable for assessing nutrient status. J Am Dietetic Assoc 6:698, 1988.

19. Seidel, S., Kreutzer, R., Smith, D., McNeel, S., Gilliss, D.: Assessment of commercial laboratories performing hair mineral analysis. JAMA 285:67, 2001.

20. Mercola, J.M.: Accuracy of hair mineral analysis. eHealthy News You Can Use Apr 18, 2001. http://www.mercola.com/2001/apr/18/hair_analysis.htm.

21. White, J.V.: The nutrition screening initiative: a 5-year perspective. Nutr Clin Pract 11(3):89, 1996.

22. Dorlands Illustrated Medical Dictionary. Philidelphia: WB Saunders Co. 2000.

Appendix A

Thorne Supplements to be Tested:

Vitamin A

Beta Carotene

Basic B-Complex #1

Riboflavin 5' Phosphate

Pyridoxal 5' Phosphate

Cobamamide

Methylcobalamin

Bio B12

Folacal

Niasafe-600

Niacinamide

Pantethine

Pure Ascorbic Acid Powder

Buffered C Powder

Synergisti-C

Vitamin C with Flavonoids

Oscap

Ultimate E

E-500

DHA

Super EPA

Omega Plus

Black Currant Oil

Tri-CLA

Calcium Citramate

Calcium Citrate

Calcium Magnesium Citrate

Calcium Magnesium Citramate

Iodine

Iron Picolinate

Iron Citrate

Magnesium Citrate

Magnesium Aspartate

Manganese Picolinate

Manganese Citrate

BPP

Dipan-9

Planti-Zyme

Bio-Gest

Betain HCl & Pepsin

Ultrachrome

Chromium Picolinate

Chromium Citrate

Copper Picolinate

Copper Citrate

Molybdenum Picolinate

Selenium Picolinate

Selenium Citrate

Zinc Picolinate

Zinc Citrate

Zinc Carbonate

Appendix B

CPK Explanations and Prodecures

Chiropractic Plus Kinesiology (CPK) is a combination technique of several established chiropractic techniques including AK. There has been no formal research published to date on CPK, however, many clinicians using this technique are finding promising results. The goal of the developer of CPK, Dr. Dowty, was to develop a "no more excuses practice". CPK allowed him to do this by integrating principles of AK, CK (Clinical Kinesiology), SOT (Socro-Occipital Technique), Toftness Chiropractic System, and Electronic Meridian Therapy or Acupuncture.

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as clinicians are already being answered, we just need to learn to speak the right language[9].

Procedures necessary to evaluate patients' nutritional needs are as follows:

1. The "Local" hand mode will be held in contact with each patient's "Masterpoint". Local is a hand mode that will reduce interference from any local problems existing over the masterpoint that may otherwise hinder biofeedback. Masterpoint is a point on the forehead at the area that the forehead indents slightly just above the eyes. This is at the point commonly referred to as the 3rd eye chakra in Chinese Medicine.
2. The "Adaptation" hand mode will next be held in contact with each patient's Masterpoint. Adaptation is a hand mode that will reduce any detrimental changes the body has made to any past stressors that have not been corrected.
3. The "High Gain" hand mode is the last hand mode to be held in contact with each patient's Masterpoint during the initial procedures. High Gain is a hand mode that allows the patient's body to clearly understand the hand modes that are to be used for full diagnosis and treatment. All of the aforementioned hand modes are used with the "POP" and "Time" hand modes. These allow the practitioner to find any problem occurring in a different posture or position or a different time.
4. Each patient may now be examined for nutritional supplement deficiencies by engaging the "Deficiency" hand mode and passing each supplement over the midline. Resonator becomes tacky and squeaks or clicks indicate positive responses.