Abstract

The SpectraCell Micronutrient Test in a Primary Care Population.

Dorothy Merritt, MD

Southwest Wellness Solutions, Inc., 1225 North Highway 3, Suite 100, Texas City, TX 77591-4004.
(409) 938-1770; www.wellnesssolutions.com

PURPOSE: The purpose of this study was to document intracellular deficiencies in an average outpatient population in a geographic area with 23% excessive deaths from cancer and cardiovascular disease, and 37% excessive deaths from diabetes, and to determine micronutrient correlations to excessive disease patterns. Eight categories of disease states were tabulated, including: cancer, cardiovascular, diabetes and/or glucose intolerance, gastrointestinal, hypertension, inflammatory, neurological, and psychiatric.

METHODS: The micronutrient lymphocyte analysis from SpectraCell Laboratories, Inc.of Houston was performed on 328 patients of all ages who had multiple disease states who presented to a private internal medicine clinic in 1997. Patients were offered the test if they were on any medication other than hormone replacement, had current chronic symptoms of disease not responsive to treatment, and/or had known progressive chronic disease.

RESULTS: Intracellular deficiencies identified in the 22 micronutrient assays are presented in table 1. The results are further tabulated by age and compared to over 20,000 specimens submitted to the lab on an international basis in 1997. The top 5 deficiencies noted in our local population were calcium (44%), glucose-insulin metabolism (receptor dysfunction; 33%), glutathione (33%), zinc (24%), and cysteine (23%). Seventy-five percent of the patients had total antioxidant function below normal. Vitamins B6 and folate, both implicated in cardiovascular disease, were deficient in both age groups (17% and 18%, respectively). The elderly patients were significantly more deficient than the younger patients in the local population in vitamin B1(thiamin), biotin, calcium, cysteine, glucose-insulin metabolism, glutathione, inositol, oleic acid and serine. Pearson's correlation of co-efficients and probability statistics were run and the statistically significant correlates (<.05) are as follows: Cancer history in these patients correlated statistically to age, vitamin B1 (thiamin) and cysteine deficiency. Atherosclerosis correlated to age, deficiencies in B1 (thiamin), B6 (pyridoxine), fructose intolerance and serine deficiency, and concurrent diabetes, hypertension, gastrointestinal and neurological disease. Diabetes correlated to age and all disease states except inflammation. Gastrointestinal disease correlated to age and concurrent atherosclerosis, diabetes, hypertension, inflammation, neurological and psychiatric disease. Hypertension correlated to older age, deficiencies of inositol and oleic acid, and concurrent atherosclerosis, diabetes, gastrointestinal, neurological and psychiatric disease. Inflammatory disease correlated to deficiencies in total antioxidant function, B6 (pyridoxine), glucose-insulin metabolism, magnesium and zinc, and concurrent gastrointestinal and neurological disease. Neurological disease correlated to aging and deficiencies in total antioxidant function, B2, B3, inositol and serine, with all of the disease state categories. Psychiatric manifestations correlated to B2, B3, biotin and glutathione deficiencies, and concurrent diabetes, gastrointestinal and neurological disease.

CONCLUSIONS:

1. This is a large general population of all ages tested with the SpectraCell micronutrient test.

2. Correlates between cancer and deficiencies of B1 and cysteine have implications for DNA repair and correlation to disease in the Houston/Galveston area may be associated to low levels of these micronutrients in the population. Likewise for all of the eight disease categories assessed.

3. Multiple studies showing individual conditions and their relation to these micronutrients exist. Would dietary changes and nutrient supplementation, specific to the biochemical requirements of each individual, along with increased dietary education, influence the disease medication in your employees? It has certainly modified the cost of care in this population by lowering bed days/1000, outpatient procedure costs, outpatient visits, referrals to specialists and total health cost reduction in our clinic models by 50% to 100% at one year. Patients are exhibiting increased quality of life and are generally pleased with the outcome. Combined with stress reduction techniques, the total cost of health care can be lowered substantially by implementing a Wellness Solutions Approach.