CorePsych

Walsh Biomedical Assessments

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Details From Dr. William Walsh *Nutrient Power*: [1]
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How To Identify

Clinical Clues to Recognize Chemical Imbalances

The primary nutrient imbalances that impact mental health often clinically present as accompanied by a distinctive set of symptoms and traits. This information can be valuable in forming a correct diagnosis, especially when chemistry findings are inconclusive. General syndromes associated with these imbalances are summarized below. The presence of more than 30% of these symptoms and traits is considered a positive indication of the imbalance:

Zinc deficiency

Poor growth through puberty with significant growth after age 16, white spots on fingernails, frequent infections, tendency for sunburn, preference for spicy foods, irritability, poor stress control, anger, poor wound healing, poor muscle development, premature graying of hair, abnormal or absent menstrual periods, stretch marks on the skin.

Copper overload

Hyperactivity, academic underachievement, skin sensitivity to metals and rough fabrics, estrogen intolerance, emotional meltdowns, ringing in ears, sensitivity to food dyes, high anxiety, sleep problems, adverse reaction to nutritional supplements containing copper, abnormal menstrual periods.

Undermethylation

Obsessive-compulsive tendencies, seasonal allergies, strong-willed, exceedingly competitive in games and sports, ritualistic behaviors, high libido, poor pain tolerance, addictive tendencies, sparse arm/ leg/ chest hair, history of perfectionism, chronic depression, high fluidity (tears, saliva), phobias.

Overmethylation

High anxiety; dry eyes and mouth; hirsutism [excess hair]; noncompetitive; low libido; talkative; low motivation in early school years; obsessions without compulsive actions; sleep disorder; food and chemical sensitivities; estrogen intolerance; absence of seasonal allergies; postpartum depression; antihistamine intolerance; repeated adverse reaction to SSRI antidepressants, methionine, and SAMe.

Pyrrole – Kryptopyrrole disorder

Poor stress control, poor short-term memory, reading disorder, sensitivity to noise and bright lights, little or no dream recall, spleen area pain, poor growth, many fears, dry skin, underachievement, tendency to skip breakfast, frequent infections, extreme mood swings, severe inner tension, abnormal fat distribution, affinity for spicy or salty foods, high anxiety, delayed puberty, abnormal EEG.

Toxic metal overload

Abdominal discomfort, poor appetite, increased irritability and temper, a decline in academics, metallic taste in mouth, bad breath, change in personality. Although the above information is helpful in forming a diagnosis, it should be considered inconclusive in the absence of blood and urine testing. The combination of a good medical history and reliable lab testing is essential to accurate diagnosis.

Evidence Through Specific Tests

There are several labs in the USA and elsewhere that capably perform these tests. If possible, samples should be submitted to labs with CLIA [FDA] certification to maximize the chances of high proficiency and accuracy. Find descriptions for useful laboratory tests below. At CorePsych we always prefer Direct Health Access Laboratory at http://dhalab.com/core [References there as well.]

Whole blood histamine - WBH

WBH provides a useful test for evaluating methylation status. Histamine and methyl groups are present in measurable levels throughout the body, and an inverse relationship exists between them. Histamine is metabolized (destroyed) by methylation, and this is a primary mechanism for regulating histamine concentrations. Elevated blood histamine indicates undermethylation, and low histamine is evidence of overmethylation. *Avoid medical/antihistamine treatments for two weeks before sampling as they can artificially lower blood histamine. Laboratory assays for SAMe/ SAH ratios are more decisive, but they are not widely available in commercial laboratories.*

Plasma zinc

There are about ten different approaches for measuring zinc status, and *zinc experts have consistently regarded PLASMA TESTING* as the best way to obtain reliable and meaningful results. The zinc concentration in *blood serum* is nearly identical, but this approach involves an increased likelihood of contamination during sampling. Some doctors prefer to *assay packed cells*, which gives an indication of the zinc level within blood cells rather than in blood fluids. Testing of both plasma and blood cells provides additional information – though is often not necessary.

Serum copper

Serum copper is a routine and highly reliable assay that is available in many parts of the world. Copper has particular significance in mental health due to its role in the metabolism of dopamine and synthesis of norepinephrine. Elevated serum copper can alter the synaptic activity of these important neurotransmitters.

Urine pyrroles

This chemical assay is available in laboratories in the USA, Europe, and Australia and is gaining in popularity. This test identifies pyrrole disorder - a medical condition associated with extreme deficiencies of B-6 and zinc – and is also an assessment of oxidative stress. Pyrrole disorder typically involves high anxiety, poor behavioral control, a reading disorder, impaired immune function and other troubling symptoms. Severe pyrrole levels are reported in persons diagnosed with violent behaviors, depression, schizophrenia, and other critical mental disorders. Elevated pyrroles can also result from excessive oxidative stress levels in persons who do not have the classic symptoms and traits of pyrrole disorder.

Serum ceruloplasmin

In healthy individuals, about 80 to 95% of serum copper is bound to ceruloplasmin, with the remaining 5-20% present as loosely bound atoms or unbound free radicals. Patients with more than 25% of their copper not bound to ceruloplasmin [% Free Copper] have a metal metabolism disorder involving elevated oxidative stress. This condition is common in autism, postpartum depression, ADHD, and certain forms of psychosis.

Thyroid panel

A surprisingly high number of patients with chemical imbalances also exhibit hypothyroidism. Normalizing thyroid levels is essential to treatment success for these persons. In rare cases, hypothyroidism alone can cause clinical depression or psychosis.

Liver enzymes

The presence of elevated liver enzymes suggests this organ is under significant stress, and nutrient therapy should be modified to avoid aggravating the condition. Liver enzyme elevations are a common side effect of psychiatric medications. In any case, high dosages of niacinamide and fat-soluble vitamins such as A, D, and E should be avoided for these patients.

Treatment Response

Malabsorption

About 10% of patients are malabsorbers who process foods and nutritional supplements with low efficiency. These patients *need higher nutrient doses* to normalize body chemistry.

My general rule is to carefully increase nutrient dosages by 10%, 20%, or 30% for persons with mild, moderate, or severe malabsorption, respectively.

Stress Dosing

Patients with a history of zinc deficiency tend to *emotionally relapse* during a prolonged, stressful period. Over the years we have learned that temporary increases of zinc can be very useful in maintaining treatment effectiveness.

Response Times - Overview

The response to nutrient therapy is *relatively slow* when compared with that of psychiatric medications. Also, response times vary significantly for different chemical imbalances. Typical Treatment Response Times (assuming good compliance) are shown below for some of the significant biochemical imbalances:

Treatment Response Times

Pyrrole disorder

Excellent improvement in behavior control and calming can be seen during week one, with full effectiveness after one month.

Zinc deficiency

Little improvement occurs during the first two weeks, with gradual improvement after that and full effectiveness after 60 days.

Copper overload

There are many reports of *mild worsening during the first ten days*, followed by definite improvement during weeks three and four and full effectiveness after three to four months. (Except in the case of Type A blood, which may require 6-12 months for full effectiveness).

Overmethylation

There is *increased anxiety during the first two to three weeks*, followed by sharp improvement during weeks four to eight and full effectiveness after three to four months.

Undermethylation

Little/no improvement is seen during the first three to four weeks, followed by steady improvement during months two to six.

Toxic metal overload

There is mild *worsening during the first ten days*, followed by steady improvement for four to six months. Removal of lead is exceptionally slow (half-life of long-term lead in the body is 22 years). Other metal toxins can be removed relatively quickly.

Problems

Factors that often *retard progress* are malabsorption, type A blood and hypoglycemia. Patients who have all three elements require great patience since initial progression can be delayed by several months. Also, treatment response usually is often *very protracted for treatment of undermethylated schizophrenia and bipolar patients*. For these persons, improvement usually begins after 3 to 6 weeks, with 12 months often needed for the full effect.

Malabsorption

Malabsorption, in my clinical experience, is most frequently associated with comorbid, associated food sensitivities often overlooked and surprisingly discredited by traditional allergists and gastroenterologists. At CorePsych *we find IgG[2] testing essential* as outlined in these video explanations: http://corepsych.com/gi - and located in the additional IgG video explanations on page two here: http://corepsych.com/tests

Food sensitivities are directly related to these several Walsh challenges and provide additional clinical insights for resolution of these various biomedical imbalances.

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[1]Walsh, Dr. William J. (2014-05-06), *Nutrient Power: Heal Your Biochemistry and Heal Your Brain,* (Kindle Locations 2962-2975) – Global Amazon Link: http://geni.us/walsh Skyhorse Publishing. **Ed Note:** I strongly recommended reading this book to learn more about assessment and treatment of resistant mind conditions. Details matter. Molecular neurophysiology matters.

[2] Fasano, Dr. Alessio, *Gluten Freedom* - Global Amazon Link: http://geni.us/fasano - As the Chair of the Department of Pediatric Gastroenterology at Mass. General Hosp., Visiting Professor of Pediatrics at Harvard, and Founder of the Center for Celiac Research, he brings considerable research authority to the clinical imperative for IgG testing.

For CoreBrain Journal interviews with Dr. Walsh on each of these topics see the many links on this first episode at http://corebrainjournal.com/115

Epigenetic Video Training & List of 5 CorePsych Posts on Measured Depression Biotypes: http://corepsych.com/walsh-resources

Walsh as a Critical Thinker: http://corebrainjournal.com/critical

CorePsych Assessments – Walsh Trained & Speaker at Walsh Institute Training: http://corepsych.com/services | http://corepsych.com/appointments