Editorial

The Legitimacy of Hair Analysis

The medical establishment has never endorsed Hair Tissue Mineral Analysis (HTMA). The American Medical Association listed six criticisms against its routine use. The Ontario College of Physicians and Surgeons in 1983 told its members that it was a wasteful procedure. The media too, reflects this negative attitude. A group of responsible practitioners and scientists involved in Hair Analysis formulated standard procedures. This included directions for sample collection, preparation, analysis and the clinical significance of concentrations of specific elements in human hair. The United States Environmental Agency studied 1400 peer-reviewed papers on HTMA. Their conclusion, "human hair is a reliable, easily accessible indicator of toxic elements in man". It is presently being employed all over the world as a screening tool to detect mineral deficiencies and toxic metals in horses, cattle, dogs, cats and other animals. The United Nations Environmental Program selected human hair as, "one of the important methods for worldwide biological monitoring".

The usual practice is to analyze 16 essential minerals and five toxic ones. The following ones are deemed to be of clinical significance: calcium, magnesium, zinc, copper and chromium. Toxic ones are: lead, mercury, cadmium, arsenic and aluminum. When calcium is above the normal range, it indicates that it is leaving the bones for soft tissue such as the hair. This precedes cardiovascular problems, arthritis and similar degenerative diseases. As current research proceeds, those not presently considered significant will most likely be upgraded. Copper might illustrate a similar pattern for other minerals. This is a very important mineral, yet when in excess it can be quite harmful. It acts as a potent free radical age-associated catalyst in inflammatory diseases.

Blood and urine reflect recent intake. Toxic metals tend to leave the blood fairly quickly to be deposited in the bones and other body tissues. Analyzing minerals in the blood is quite difficult and costly. Hair grows about one half inch per month. As it develops, it takes nutrients and toxic metals from the blood. In the process, it sequesters them into the hair protein, keratin. Consequently, the hair sample, is indicative of the cellular or body levels for a period of a few weeks prior to the analysis.

Dr. William Strain of the Cleveland Metropolitan Hospital was one of the first to analyze human hair for clinical purposes. He called lead pollution, "the greatest neurotoxin threat to all mankind". Leaded gasoline especially has been responsible for enormous damage to our eco-system. Fortunately, steps have been taken to bring this under control.

Toxic metals such as mercury have been and continue to be introduced into our environment through the air, water, seafood, dental amalgams and drugs. Mercury can cause kidney damage and suppress the immune system, leading to many degenerative diseases such as cancer. Excess aluminum has been implicated in Alzheimer's, Parkinson's and Lou Gehrig's diseases. It is found in cooking pots, antiperspirants, vaginal douches, antacids, toothpaste, table salt, baking powder, buffered aspirin, water and processed cheese.

It is obvious that medical practitioners should be making greater use of Dietary and Hair Mineral Analyses. Compared to other methods, HTMA is a useful, economical monitoring procedure. Costs for medical care continue to escalate at an alarming rate. Governments and the public are calling for more preventive measures. Essential minerals are absolutely necessary for the proper functioning of our body and mind; toxic ones can be devastating. The accurate monitoring of our mineral status should take its rightful place in future medicine.

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