VALIDITY AND ACCURACY OF HAIR ANALYSIS

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Hare Krishna! All Glories to Srila Prabhupada! Regarding the poisoning of Srila Prabhupada with a cocktail of heavy metals that primarily featured cadmium, a question has been posed about the accuracy of the method of hair analysis itself. The fear is that testing hair samples will not give meaningful evidence of what was in the body and that the findings by Dr. Morris at Missouri University Research Reactor that Srila Prabhupada had about 250 times normal levels of cadmium are not proof of poisoning. To address these concerns, please refer to Chapter 47 of the upcoming presentation on the facts, evidence, and analysis of Srila Prabhupada's poisoning called Kill Guru, Become Guru: Book One: The Poisoning of Srila Prabhupada's Body. It should be released as a free downloadable E-Book in June 2017. Meanwhile, here is an excerpt relevant to that point of confusion. Also, if you haven't yet, please watch the video on the scientific breakthrough in the private investigation of Srila Prabhupada's disappearance on YouTube: Kill Guru, Become Guru. This video has been watched almost 6000 times in 23 days, even though it has only been featured on a very few websites. Srila Prabhupada's poisoning is the crime of the millennium and yet ISKCON leaders are silent or apathetic. The first step towards justice is to distribute the truth- facts and evidence- to anyone who cares for Srila Prabhupada. Once it is widely understood what actually happened, the repercussions will be profound, although not precisely known in advance. Hare Krishna. Your servant, Nityananda das

EXCERPTS FROM Chapter 47: Hair Analysis: Validity and Accuracy:

One should not be misled that individual hair analysis is unreliable.

HAIR ANALYSIS IS A RELIABLE INDICATOR

(1). The EPA (Environmental Protection Agency) published an authoritative study in 1979 in which more than 400 reports on hair testing were reviewed. The authors concluded that hair is a ***"meaningful and representative tissue for biological monitoring of most of the toxic metals."***

(2). The Great Smokies Diagnostic Laboratories states: *"There are numerous papers on the accuracy and efficacy of hair testing, particularly for toxic metals such as mercury. For more than 30 years, the significance of measuring element concentrations in scalp hair, blood, and urine has been studied."*

(3). A 1986 study by V Bencko, T Geist, et al called *"Biological monitoring of environmental pollution and human exposure to some trace elements"* states:

*"In addition to analyses of plant and animal specimens, the element content of human hair as an indicator of exposures to arsenic, mercury, cadmium, lead, antimony, manganese, nickel and cobalt has been **repeatedly confirmed as reliable**, provided the analyses were carried out and evaluated on group diagnostic basis and were done in groups of individuals occupationally not exposed to these metals."*

(4). From Nutri-Test Analytical in Edmonton, we read: *"Blood, urine and hair are the most accessible tissues in which to measure elements in our body, and they are sometimes referred to as indicator tissues. Blood and urine concentrations usually reflect recent exposure and correlate best with acute effects. Hair is useful in assessing variations in exposure to metals over the long term. It is a useful tool for… diagnosis of heavy metal exposure…"*

(5). A 1980 study by JS Lee and KL White called "A review of the health effects of cadmium" found that *"hair values correlate well with exposure"* to cadmium, whereas blood values did not.

(6). A 1979 study published by the EPA by DW Jenkins called "Toxic metals in mammalian hair and nails" found that *"hair analysis, when properly performed, is a reliable measure of tissue levels of cadmium."*
(7). A 1973 study by RW Thatcher et al called "Effects of low levels of cadmium and lead, etc" found that *"hair analysis is superior to blood in reflecting long term cadmium exposure."*
(8). WIKIPEDIA: Arsenic poisoning: (2015) *"Tests on hair and fingernails can measure exposure to high levels of arsenic over the past 6–12 months. These tests can determine if one has been exposed to above-average levels of arsenic… Hair is a potential bio-indicator for arsenic exposure due to its ability to store trace elements from blood. Incorporated elements maintain their position during growth of hair."*

EXOGENOUS OR ENDOGENOUS ?

One of the first skeptical responses to a finding of high levels of heavy metals in a hair test is: *"Maybe it is due to external contamination."* In other words, speculation races to question whether the poison in the hair had derived from the internal blood deposition process, called endogenous, or whether it originated from external sources, called exogenous. This question revolves around the difference between hair adsorbing poison through its overall exposed surface area, or whether the poison was bound into the hair from the blood at the growing hair root.

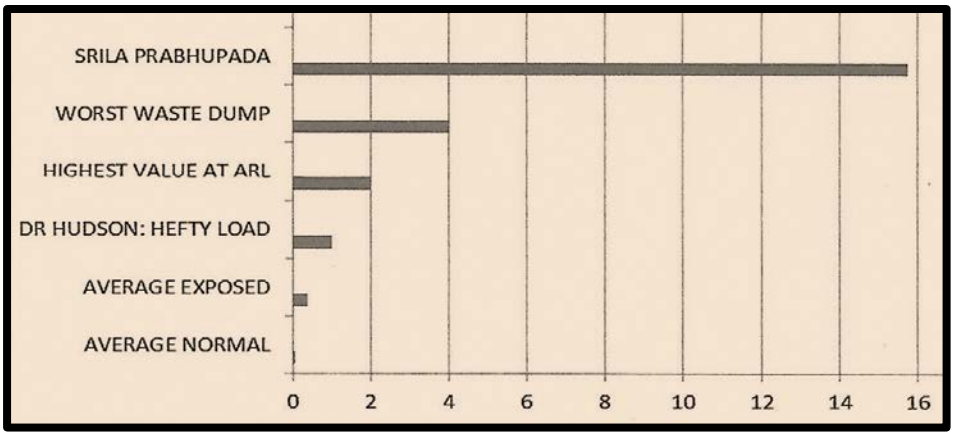
To establish a poisoning wherein poison was ingested internally, the poison in the hair being tested should reliably be found to have endogenous or internal sources. The standard approach to this problem is to reasonably exclude external contamination as a possibility. The factors by which such exogenous origins occur are summarized below.

Dr. Morris decided not to wash Samples A and D before testing. Sample washing can have very serious effects in the compromising of results and was of limited value anyway, he explained. By powerful microscopic examination he had not found any significant amount of external debris on the hair samples; they did not show evidence of external contamination, such as oils, chemicals, or whatever. Also, he referred to scientific literature on hair analysis that had found hair very close to the scalp, as these samples were (the first half inch), was least likely to have been ***externally contaminated***. Also another US study on the validity of hair mineral testing found that much of the variance in results was actually due to the washing steps used by some labs in their faulty attempts to address external contamination issues.

Sometimes a reference will be found that ***appears to say*** that hair analysis does not actually show if there is poisoning in the body, or that from body burden to hair values there is a poor correlation. As an example, the CDC (Center for Disease Control, USA) has this on their website about cadmium in hair:

"Studies of exposed workers have not found a quantitative relationship between hair cadmium levels and body burden. Because of the potential for sample contamination, hair levels are not reliable either as predictors of toxicity or as indicators of occupational exposure."

In reply to this, we borrow a chart from Ch. 33 to show the extent of Srila Prabhupada's cadmium levels in his hair, just to illustrate that we are NOT dealing with a typical exposed industrial worker who may have, as shown, an average of about 0.387 ppm cadmium. Srila Prabhupada had 40 times that amount !



CADMIUM LEVELS: Comparison chart showing amounts of Cadmium in ppm, from 0 to 16 ppm.

1. **SRILA PRABHUPADA: 15.75 ppm, 250 X normal**
2. **Worst waste dump: 4 ppm, 60 X normal**
3. **Highest Value at ARL: 2 ppm, 30 X normal**
4. **Dr. Hudson: "hefty load": 1 ppm, 15 X normal**
5. **Average Exposed Industrial Worker: 0.387 ppm, 6 X normal**
6. **Verage Normal Unexposed Person: 0.065 ppm.**

The concern by the CDC is, as they state, about external contamination to the hair that will be tested, thus giving a false positive. But Dr. Morris knows all about the pitfalls of doing hair tests in the wrong ways that would give misleading results. He microscopically examined the hair samples he tested for the Truth Committee and found no signs of external contamination. Dr. Morris and thousands of other scientists worldwide DO use hair analysis as a normal procedure which gives accurate and useful results, meaning that hair DOES indicate the body burden of various elements and compounds. That is, until the hair becomes externally contaminated and is not checked for such in advance of the test.

Dr. Morris did not run a commercial outfit that rams hundreds of tests daily through an automated process, as some online hair testing companies do. He took the time to properly prepare EACH test uniquely, with its own set of fine-tuned parameters and settings of his nuclear testing equipment. Although there is some concern about misleading results due to external contamination, as done by commercial, high-numbers outfits, this in no way invalidates the science of hair analysis as a whole. Otherwise, why are scientists and researchers the world-over doing testing hair? What would be the reason to continue funding Dr. Morris' MURR facility with tens of millions of dollars over four decades if he was doing meaningless hair tests? The fact is that hair analysis, especially by NAA, is a very valid and accurate scienctific method to determine the body burden of poisons. Whatever is in the blood will be deposited into the growing hair at the same concentration level. The fact is that "buyer beware" applies to one who wants to do a hair test- they must find a reputable concern who will know how to deal with the external contamination issue. Dr. Morris does.

Also, the CDC quote above refers to a comparison between unexposed persons (average 0.065 ppm cadmium) and exposed persons (average 0.387 ppm)- which is a multiple of only SIX times. However, Srila Prabhupada had a multiple of 250 times, and this result is so dramatic and skyhigh that it completely trumps any possible question of inaccuracy from exogenous contamination- the possibility of which Dr. Morris had already eliminated by microscopic examination. Samples A and D are definitely and accurately indicative of the massive cadmium poisoning which Srila Prabhupada endured.