

Aluminum Poisoning of Papua New Guinea Natives as Shown by Hair Testing

Elizabeth Lodge Rees, M.D., F.A.A.P.¹.

On a recent trip to the mid-portion of the Sepik River of Papua, New Guinea, a curious habit was observed. The native Melanesian people smoke home grown tobacco hand rolled in pieces of newspaper. Traders sell one double sheet of either Port Moresby, New Zealand or Australian newspaper, black and white print, for one tenth of a Kina which is equivalent to 15 cents USA. Truly a profitable undertaking unless transportation is considered. To reach the Sepik River either one must fly in small, single engined planes that seat 10 to 20 persons with their miscellaneous baggage or traverse by foot almost impassable jungles over high mountains. It is dangerous to go by small personal boat upriver from the Pacific Ocean, twisting and turning repeatedly while avoiding the many backwaters of this 20 mile river. Crocodiles abound and many of the native tribes are unfriendly.

There are 767 tribes in Papua, New Guinea, each with its own language. The common language is pidgin which, though purists object, is not only spoken but written and taught in schools. Until recently the tribes warred with each other, usually to the point of near extinction, in order to obtain more land or protect what they had. Diet of fish, crocodile,

roots and native plants also includes some domesticated chicken and pig. Cooking is done in clay pots made in the village, Ailan, which we visited. These un-glazed pots are traded up and down the river.

Thinking to find lead poisoning due to the smoking of homemade cigarettes with their newspaper covers I obtained at the village, Yentchan, a native cigarette and hair specimens from five men and two women, ages unknown as they rarely reckon time. Only one man, C.N., first mate on our Sepik Explorer house boat, smoked commercial cigarettes as well as native cigarettes, ate a commercial diet mixed with his native foods and visited the coastline cities (Table 1).

Much to my surprise there was no lead elevation in the hair tests but high elevations of aluminum and iron except in C.N. who had moderate elevations of lead, aluminum and iron consistent with his life style. Both the tobacco and the newspaper cover from the cigarette showed high aluminum and iron but no elevation of lead. This lack of lead in the newspaper may represent a

1. 6632 Landis Ave. Carmichael, California 95608

ALUMINUM POISONING OF PAPUA NEW GUINEA NATIVES

TABLE I

	LEAD	ALUMINUM	IRON
MALES			
C.N. (houseboat crew)	2.1mg%	4.4mg%	8.9mg%
Y.G.	0.85	15.0	19.0
G.G.	1.7	19.0	46.0
B.G.	0.89	9.5	23.0
A.N.	0.99	30.0	47.0
FEMALES			
J.G.	1.0	16.0	30.0
M.N.	0.70	7.5	11.0
USA NORMALS	0.1.0mg%	0-10mg%	2.0-5.0mg%
TOBACCO	0.65	34.0	65.0
NEWSPAPER	0.5	8.5	10.5

changeover from lead to aluminum in the printing process. The high aluminum in the hair of these natives can be assumed to come from their native foods cooked in unglazed clay pots and from their homemade cigarettes.

Rees (1979) reported 10 delinquent boys to have high hair aluminum and iron values. Since then she has seen two more cases. Is there a possibility that aluminum is a cause of violent behavior? Certainly the New Guinea natives are known to have been most warlike and violent among the tribes until controlled by New Zealand.

Further studies of prison populations and other native tribes who are violent and warlike would be most interesting.

Biochemical studies to determine why hair iron is usually elevated when aluminum is elevated are needed as this is a frequent finding in USA cases, as well as in these native cases.

References

REES, E.L.: Aluminum Toxicity as Indicated by Hair Analysis. *Journal of Orthomolecular Psychiatry* Vol. 8, No. 1, 37-43, 1979.

Book Reviews

Therapeutic Claims in M.S. International Federation of Multiple Sclerosis Societies, 1982.

Anyone who had a chance to treat or to follow progress of patients with multiple sclerosis (M.S.) must agree that it is a devastating and frustrating illness both to patients and physicians.

I came across a fascinating ring binder publication titled *Therapeutic Claims in Multiple Sclerosis*. The first part of the publication reviews with clarity the current orthodox medical observations about M.S. based on histopathology. This approach describes well the result of the disease. It further reiterates the current methods of diagnosis which still only rests on demonstration of neurological deficits in different locations and at different times. Next the publication suggests clinical trials of new and old therapies by the double blind method. The authors are unfortunately unable to honestly admit that in fact the main problem in evaluating any therapy in M.S. is the lack of precise and definitive diagnosis during the life of a patient.

In my orthomolecularly oriented practice I have seen a number of patients diagnosed by one or more neurology consultants from university teaching centers as M.S. Treated by orthomolecular therapy a few of these patients have definitely improved and some "recovered" or entered into remission. It is my personal impression that these patients did not have the true M.S. but they had neurological deficits related to an ecologic illness or to a specific deficiency of nutrients.

When I am critical of the orthodox neurological establishment it is not for their inability to find a reliable diagnostic method or the cure.

It is for their arrogant way of covering their ignorance.

The real reason for reviewing here the three ring binder publication is the wide spectrum of information it provides about the orthodox, alternative and theoretical therapies. Despite their attitude of contempt disguised here as an objective science the authors were very generous in opening their files on many unorthodox therapies, many of which I had not even heard of. Presented is a well organized brief outline of close to one hundred therapies. A plus here is a broad international coverage thus not limiting the content to a few better known North American therapies. Although the details of the therapies such as dosages and protocols are not given there is a wealth of information collected. Covered are diets, drugs, vaccines, nutrients, physical treatments, surgery, immunosuppression, immunostimulation and others. Sometimes the originators of the treatment are cited but more often not. Some comments show pure ignorance: gluten free diet is quoted as wheat and rye free thus omitting oats and barley. Most treatments are evaluated as being ineffective for M.S. Possible synergistic effects are ignored.

It is also humbling to see several old therapies come and go only to re-emerge again for treatment of another illness. For example the fever therapy was tried for M.S. unsuccessfully (heat tends to aggravate M.S.) and recently the same therapy has been tried with some success in cancer treatment.

In conclusion *Therapeutic Claims in M.S.* is a most informative and interesting reading.

S. Pilar, M.D.
2786 W. 16th Ave. Vancouver, B.C. V6K 3C4 Canada

Victory Over Diabetes
William H. Philpott, M.D.
Dwight K. Kalita, Ph.D.
Keats Publishing Inc., 175 pp. \$18.95

The authors point out the need for a more effective approach to control the disease which is a great killer andcrippler. Between 1965 and 1973 the prevalence of diabetes increased more than 50 percent in the U.S.A. In that country the economic toll, without even considering its complications is estimated to be \$5.4 billion every year.

The complications include problems in the cardiovascular system, kidney and eyes, peripheral nerves and tiny blood vessels, the brain and other organs. Because of the high incidence of these complications developed by diabetics treated with insulin, it became apparent that something is terribly wrong with the treatment and a different approach was urgently needed.

This book concerns itself not only with the control of diabetes, but also involves important issues relating to general health. The authors describe diabetes as a systemic disease rather than a disease with a specific etiology. The bio-ecologic approach used in treatment and prevention of diabetes involves proper nutrition, control of maladaptive metabolic processes and allergies, in accordance with individual needs and tolerances.

To introduce the nutritional approach which would be more effective and eliminate the complications, the authors feel that changes in attitudes including more scientific and objective approaches are required. "In the 1980's the time is ripe for physicians to become less concerned about the symptomatic drug treatment of disease and more interested in understanding the proper cellular-nutritional environment needed for optimum health" (p.200). Dr. Lesser, testifying at the hearing before the Select Committee on Nutrition and Human Needs, deplored the fact that "the physicians in medical school are taught to use drugs, not nutrients. Hours are spent teaching physicians how to prescribe drugs to treat disease". To overcome this problem Dr. Lesser recommended that "clinical nutrition should be a mandatory course in every medical school."

The book describes clearly and concisely the diabetic disease process, the diversified rotation diet, the use of vitamins, especially vitamin C, B6 and E and also explores the relationship between chromium and diabetes. In Appendix A there is a physician's guide to bio-ecologic examination and subsequent treatment. Appendix B is an article by Dr. Helen First entitled "Anatomy of Resistance to the Emergent Paradigm: Orthomolecular Medicine" from the Journal of Orthomolecular Psychiatry, Volume 9, Number 4.

The reader will find that this book not only gives a great deal of information about diabetes and its control, but also outlines basic principles which could be most helpful in the introduction of a more scientific and a more effective approach to health services.

I.J. Kahan

The Yeast Connection William G. Crook,
M.D. Professional Books, P.O. Box 3494
Jackson, Tennessee, 38301. Price \$13.95 U.S.

This journal has aimed at being innovative by providing a place where scientists can publish their reports and ideas which would not be acceptable in orthodox journals. It is very gratifying when some of these ideas are corroborated so quickly. This journal carried a series of three reports on Candida by Dr. C. Orian Truss who first drew our attention to the relationship between Candida and a large number of chronic diseases, psychiatric and physical.

In his book Dr. William G. Crook records his corroboration of Truss' findings, but even more, provides a complete textbook for physicians and others who want to know how to determine whether there is a yeast problem, and what to do about it. It is a worthy successor to Dr. Truss' book, **The Missing Diagnosis**, (available from P.O. Box 26508, Birmingham, Alabama 35226).

Dr. Crook describes who is most apt to be vulnerable, what are the susceptibility factors and how symptoms are diagnostic. He even has a symptom scale for assisting in

diagnosing. Treatment properly includes increasing immune defenses and destroying the yeast.

Immune defenses are enhanced by restoring nutrition to the good, healthy diet we had all adapted to (i.e. our ancestors), by taking into account allergic reactions and by using the correct nutrient supplements. Dr. Crook has described several diets with a few sample menus.

Diet is also important for Candida which is vulnerable because yeast must have free sugar. By avoiding the sugars and depending upon complex carbohydrates, sugar is released slowly and absorbed in the small intestine, leaving little for the yeast which has colonized the large intestine. By using enough fiber and ensuring normal peristalsis, the yeast is kept in the large intestine.

The yeast is also hit by using safe antifungal drugs such as Mycostatin. They are not absorbed readily into the blood, remaining in the intestinal tract. Sometimes yeast desensitizing injections are required.

Dr. Crook illustrates the kinds of patients he has treated and the results by describing a number of very interesting cases. He also uses a large number of illustrations to describe the yeast, immune defenses and treatment.

All in all, I think this book is one of the best I have seen and it will be valuable to physicians and lay people. Chronic candidiasis is being recognized as one of the modern western diseases or scourges. The information released by Dr. C. Orian Truss, and by Dr. William G. Crook in this book, will help us do something about it.

A. Hoffer, M.D., Ph.D.