

abscess formation. *Hepar 30c* and *Belladonna 30c* cured, as her sister reported when she consulted me four months later on account of furunculosis from which she had suffered for a long time, beginning on right leg. Every furuncle had been lanced by the attending physician. When the same condition appeared in the axilla, the same physician deemed necessary and performed total extirpation. Just before this, her menstruation did not come through, which suggested sufficiently that the furunculosis was of a constitutional character. The extirpation would had not healed during four weeks, and around it a new, very hard infiltration appeared. *Hepar 30c* and *Belladonna 30c* were given. After three weeks the general condition was very much improved, but from time to time small axillary abscesses formed, and an eczema was appearing at the neck, which were all cured by *Bryonia* and *Hepar*. Patient says she will never again have surgical treatment.

(To be continued)

—*Jourl. of the Am. Inst. of Homæopathy, Dec., '56*

## ALUMINUM POISONING—SOME CASUAL OBSERVATIONS

DR. WILBUR K. BOND, M.D.

Somewhere in the course of treatment of a chronic case, I believe a great many need time out to eliminate the evil effects of aluminum: such complaints as stubborn constipation, soft stool, irritable colon, constipation alternately with diarrhœa; stomach, colon and duodenum show symptoms of ulceration; loss of appetite, dry mouth, astringent metallic taste, slow response to the indicated remedies and history of cooking in aluminum utensils, stool adhesion.

Solis-Cohen Githers *Pharmacotherapeutics* has this to say under symptoms of poisoning: "When strong solutions of aluminum acetate or alum are taken into the stomach there is immediate severe pain in the epigastrium and burning in the throat and mouth. The mucous membranes of the mouth and pharynx are covered with an adherent layer of coagulated albumin and appear white or grayish. Soon uncontrollable vomiting begins, the stomach being so sensitive that even water is extremely irritating. The vomitus is often blood stained. If the amount taken were large there may be diarrhoea also. Albuminuria with casts or occasionally blood in the urine is less often seen. Recovery is commonly complete within a few days.

*"Systemic action*—The systemic action of aluminum is not seen when the drug is taken into the stomach. The effects of injected salts have, however, been studied in the dog. After a single injection of 250 to 300 mgm. per kilo the animal seems perfectly well for a week or two and then shows constipation, loss of weight, occasional vomiting, low blood pressure, anæmia, weakness of the legs, with loss of the tendon reflexes and a tendency to torpor. Later there are tremors, and jerking motions of the legs, going on to clonic convulsions. Later still paralysis of motion and widespread anæsthesia occur, and death in cachexia or coma follows. Albuminuria is constant. Post mortem study shows marked congestion of the stomach and bowel, fatty degeneration of the liver and kidney, and degeneration of the nerve fibres and cells in the cord and medulla, especially about the roots of the lower cranial nerves. Injected in frogs, alum causes spinal paralysis, affecting the forelegs first and traveling down.

"In spite of the fact that small amounts of aluminum are taken daily in many ways—as food preservatives, as solutions from aluminum cooking utensils, etc.—no case of chronic poisoning has ever been reported. The small amounts which are absorbed are excreted as quickly, and there is no tendency for it to collect in the body. This, however, does not exclude the possibility that disturbances, especially of the digestive organs and kidney may be set up, the cause being unknown and even

unsuspected ; nor is the adulteration of banking powders with alum or other methods of introducing it with foods to be excused."

It is interesting to note that in soil conditions it is possible for plants to become poisoned with a touch of aluminum oxide in the soil. As you know, the earth's crust consists of about 30 per cent of aluminum oxide, or aluminum silicate. One of the axioms that a great many scientists and laymen have used is that we are probably living in the presence of huge amounts of aluminum, but yet it is not hurting us. Of course we are ; but just because we are constantly living in the presence of huge amounts of water, neither do we get drowned, so that argument doesn't hold true. The huge amounts of aluminum present in the earth's crust are not always available for absorption.

In order for aluminum silicate to become available and toxic to plant life, it has to be turned into aluminum oxide. The only way in which it can be turned into aluminum oxide is by the aciditive action of the soil. If the soil is too acid, it will freeze available aluminum oxide and poison plant life.

We all know that aluminum is a phosphate robber. Too much soluble aluminum in the system will prevent one from utilizing the phosphorus. That is a prime reason for enriching the soil with organic fertilizer and with humus, because when the phosphate is supplied from outside sources, that binds the aluminum so that it will not poison the plant life.

Rodale states : "Chemical fertilizer increases acidity and accumulation of exchangeable aluminum oxide. . . . If the concentration of aluminum in the soil solution rises above 0.31 of 1 per cent, all plants, even those which prefer an acid soil, are killed."

Rodale goes on further to say : ". . . after knowing for years that small quantities of aluminum getting into food that is cooked in aluminum utensils, are a hazard to health, I was astounded to learn that plants could be similarly affected by absorbing aluminum from the soil."

DISCUSSION

DR. H. W. EIKENBERRY (Indianapolis, Ind.): Thank you, Dr. Bond, for your paper. That happens to be a subject that is an old friend of mine, aluminum.

In our discussions of the various forms of aluminum—alum being sodium aluminum sulphate, other forms being available through your diet—we must not overlook the fact that the process in cooking is one of formation of aluminum hydroxide, I believe, and the one that is so frequently used in the populace of our country, aluminum chloride, which is one of the chief ingredients in practically all of the underarm deodorants.

—*The Homœopathic Recorder, Dec., '55*

**OBITUARY**

DR. G. N. SINHA, M.D.

The Homœopathic profession will be grieved to learn of the sad demise of Dr. G. N. Sinha, M.D. This melancholy event took place in his Calcutta residence on 17th January, 1959 at the age of 72. He was the youngest son of late Dr. Sashibhusan Sinha. In 1914 he graduated from the Kansas City University (America) with the degree of Doctor of Medicine. Then he returned to India and joined the Calcutta Homœopathic Hospital Society. He was associated with the Society for over 30 years and was the Superintendent and Principal of the Calcutta Homœopathic Medical College and Hospital for about 20 years. He was the first elected president of the General Council and State Faculty of Homœopathic Medicine, West Bengal. We deeply mourn his loss.