## **Editorial**

## **Mercury-Silver Amalgams**

There are many reasons for psychiatric symptoms. They have been reported in this Journal since we first began to publish. Nutrition, allergies, special needs for larger doses of supplements, yeast infection, all play a role. But very few would consider that the problem arises in their teeth, or more accurately, in their mercury-silver amalgam fillings placed there by dentists. I call these mercury-silver fillings, rather than the common term silver amalgams, for mercury makes up 50 percent of the contents of these fillings and only 35 percent is silver.

Dr. H. Huggins is one of the few North American pioneers in the study of the impact of mercury from fillings on physical and psychiatric health. His report to this journal is very important. It will alert our readers to examine their own loading of mercury in their mouths.

Mercury amalgams are widely used because they are easy to use and cheaper than gold. They tend to be reactive in the mouth, releasing inorganic mercury which is rapidly absorbed. There is a steady release into the body which can be measured in hair, other tissues and urine if accurate methods are used. By 1938 the first clinical cases were reported that symptoms vanished after the amalgams were removed. Since then much more clinical material has accumulated including the psychiatric patients reported here by Dr. Huggins.

Inorganic mercury is considered less toxic than organic mercury compounds. The latter compounds were present in fish condemned several years ago as dangerous to eat. The body converts the free or inorganic mercury to the organic form. Mercury vapor rapidly crosses lung membranes into blood where it enters the red cells where it is oxidized. Some diffuses across the blood/ brain barrier into the brain. The organic mercury combines with sulfhydril groups (-SH) of important enzymes. Alcohol causes dramatic changes in mercury levels which decrease from 17 percent to 1.5 percent in lung, from 1.1 percent to 0.6 percent in brain, but increases concentration from 2.7 percent to 19.0 percent in liver, all in rats. It increases the ratio in brain to blood. Psychiatric symptoms are more sensitive in suggesting mercury poisoning than are physical symptoms. Thus in one study a control group (free of mercury) had no complaints. They were exposed to under 10 ug /M3. At 10 to 50 ug there was loss of appetite, at 50 to 100 ug weight loss and tremor. At 100 to 150 ug diarrhea. In this group 20 percent showed excessive shyness. With levels over 250 ug subjects were nervous with excessive shyness. Generally the symptoms and signs are vague and not related to any particular organ symptom.

Dr. Huggins refers to a few tests. A white blood count of 11,000 or over for three months suggests mercury poisoning.

Treatment is palliative, i.e. use of ascorbic acid at three grams per day and curative, i.e. removal of all mercury amalgams. When this is done there may be an exacerbation of symptoms for the next few days.

Anyone who must have teeth filled should make every effort not to have such a toxic deposit of mercury placed in the mouth.

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