

DOCTORS HARPER, STRIZICH AND McMAHON
SUITE 101, PROFESSIONAL BUILDING
324 FULLER AVENUE
HELENA, MONTANA
TELEPHONE 442-2322

INTERNAL MEDICINE
WILLIAM HARPER, M. D.
JOHN W. STRIZICH, M. D.

November 12, 1966

RECEIVED
NOV 16 1966
GENERAL SURGERY
JOHN W. McMAHON, M. D.
Industrial Accident Board

Robert E. Swanberg, Chairman
State of Montana
Industrial Accident Board
Sam Mitchell Building
Helena, Montana

re: [REDACTED]

Claim # 2198-A-51 O.D.
American Bridge, Division of
United States Steel Corporation

Dear Mr. Swanberg:

At the request of the Industrial Accident Board, I have examined Mr. [REDACTED] on October 6, 1966. Mr. [REDACTED] gives me a history of having done some burning, during a considerable period of time, around red lead paint in his occupation as a welder. He states that he was burning around this paint part time from December 1965 to March 1966 and that the situation was quite bad during a six week period of time in March and April 1966. He states that he developed stomach cramps sometime in April. He apparently developed severe stomach cramps sometime in April. At that time on examinations done by several doctors, revealed the presence of an anemia, some stippling of his red blood cells as well as a lead line noticed on his gums. He states that a picture was taken of this lead line by one of the doctors in Great Falls. Examinations of his urine for the presence of lead by admission of the hospital was markedly elevated. He tells me that he feels that it was somewhere in the neighborhood of 14.6. He was treated with the chelating agent called "Endrate" and states at the time of discharge his lead level was down to 7.6. He states that it was last run in August of this year and at that time it was down to 4.6.

At the present time his chief symptoms are related to pain in his thighs and forearms when he is forced to use them to any extent and that he tires out quite easily after about six hours of work.

Physical Examination: His mouth did not reveal the presence of any lead line at this time. He does not show the presence of any severe peripheral neuropathy such as wrist drop or ankle drop. The rest of his physical examination was not remarkable.

Laboratory studies were done on this patient in an effort to delineate his difficulty. An electrocardiogram was completely within normal limits. Urinalysis showed a specific gravity of 1.026 and there was no evidence of albumin, sugar,

Ltr fr John W. Strizich, M.D., Prof Bldg., 324 Fuller Ave., Helena, Montana, dtd Nov 12, 1966, re: CROSS-WHITE, Terry, CI # 2198-A-51 O.D., PAGE 2

white cells or red cells detected on microscopic examination of his urine. His white blood cell count was 8,850 with a normal differential count. His hematocrit was 38 volume percent and the sedimentation rate of his blood was 4 millimeters per hour. A 24 hour specimen of his urine was sent to the state laboratory for analysis for lead. This revealed the presence of .22 milligrams per liter of lead at a corrected specific gravity to 1.024. Chest x-ray was within normal limits and there is no radiographic evidence of excessive deposition of lead in his bones.

There are several things about Mr. [REDACTED] that suggest the presence of lead intoxication. The first thing is a mild anemia with a hematocrit of 38 volume percent. Normal levels for a man of his age should be 42 to 45 volume percent. We did not notice any stippling of his red blood cells in his peripheral smear, but this is not uncommon after these people have been treated. He still has a very slightly elevated urinary excretion of lead which does not surprise me.

Although one can frequently detect the presence of excess lead in the bones in children where it is deposited in the area of bone growth, this is extremely unusual in adults, and I am not surprised that we do not see any radiographic evidence of excess lead deposited in the bones.

Lead poisoning in the human being may come about in a variety of ways. Probably the most common cause is to be found among children in poorer families, living in older homes where the paint and plaster of the walls is loaded with lead compounds. Some of these children develop the habit of eating the paint and plaster and can develop extremely severe cases of lead intoxication. Another quite common method of acquiring this disease is to be found on the burning of lead compounds. Probably the most notorious product to be incriminated in this situation is the burning of storage batteries. It is also obvious that welders who are around burning lead can accumulate a sufficient amount through their respiratory tract to produce symptoms of severe lead intoxication. However, the lead is absorbed into the human body, it is eventually deposited in the bones from which it is excreted from the body very slowly. It is generally a cumulative disease in that the exposure is generally repeated and over a fairly large period of time before the patients become symptomatic.

The symptoms of lead poisoning will generally manifest themselves in three systems of the body. First in the blood that these patients almost invariably become anemic. They have a great deal of changes in the red blood cells with a peculiar looking stippling which can be detected under the microscope. These abnormal red cells seem to be more fragile than normal and as a consequence the patient develops a mild to moderate degree of anemia. The second system involved is the gastrointestinal tract in that these patients not uncommonly will develop severe abdominal cramps which can be a difficult problem in controlling. The third system involved is the central nervous system. The intoxication may manifest itself in the central nervous system by the production of convulsions and the like. These people who convulse from lead intoxication quite generally have a poor prognosis. The disease also produces a peripheral neurotoxicity and this generally involves the muscles which do the most work. The classic manifestation of this is the severe wrist drops which are occasionally seen in painters who obviously use their wrists a great deal in their work. Those people practicing poor oral hygiene will occasionally develop a lead line which is a bluish discoloration at the margin of the teeth and the gums.

all without performance of this case

Ltr fr John W. Strizich, M.D., Prof Bldg., 324 Fuller
Ave., Helena, Mont., Nov 7 1966, re: [REDACTED]
Terry, Claim # 2198-A-51 C.J. PAGE 3

During the past ten to twelve years we have been using drugs which are known as chelating agents which form a close bond with things such as lead, arsenic and the like. These compounds are injected in the body and they combine the lead and are then excreted in the urine. At the present time Mr. [REDACTED] does have a mild degree of anemia which very likely could be related to lead intoxication. He also shows evidence of peripheral neuropathy involving both his forearms as well as his thighs which would be in the muscle groups most commonly used by a man who has done his type of work in the past.

I suspect that Mr. [REDACTED] has been adequately treated to the present time and the object of treatment, of course, is to mobilize and excrete as much lead as possible until the patient becomes completely asymptomatic. It is always possible that after treatment has been discontinued that the patient may gradually reaccumulate an increased amount of lead in his tissues which has been mobilized from his bones and that his symptoms may recur. *only?*
without exposure?

It is my opinion that Mr. [REDACTED] has very definitely suffered from lead intoxication probably related to his job of burning red lead. I feel that he has probably been adequately treated to the present time, but the possibility does exist that he may have to be retreated in the future. I feel that he is still suffering from some residual lead neuropathy involving the thighs and forearms and that it may be a considerable period of time before this completely clears up.

If there is any further information you would like, please do not hesitate to contact me.

Sincerely,

Strizich
JOHN W. STRIZICH, M.D.