IMPERIAL OIL LIMITED

MEDICAL DEPARTMENT

56 CHURCH STREET

AUSTIN EVANS, M.D. TORONTO 2, CAN.

June 18, 1947.

Dr. Robert A. Kehoe,
Ketterling Laboratory of
Applied Physiology,
College of Medicine,
Eden Avenue,
Cincinnati, Ohio.

Re: [redacted]

Dear Doctor Kehoe:

Your letter of May 14th has been referred to me.

In this connection, I have written to Dr. Robert McKenzie of New Castle, N.B., who in reply wrote me as of June 2nd, at the same time enclosing a letter from Dr. R. D. Roach, copies of which are hereto attached.

In spite of the statement of there being stippled cells and the presence of a blue line, I am not satisfied that this is actually a case of lead intoxication. The most important investigation, the urinalysis, was not made. I doubt very much if any further data of any importance can be obtained at this late date.

Mr. [redacted] work is that of an ordinary truck driver, in which there is a slight contamination with treated gasoline, and I am not at all impressed with the claim of illness being due to the inhalation of the fumes.

With greatest personal regards. It seems a long time since we last met at Sarnia.

Very truly yours,

Austin Evans

AE:bw

June 2, 1947.

Dr. Austin Evans,
Medical Dept.,
Imperial Oil Limited,
Toronto, Ontario.

Re: [redacted]

Dear Sir:

In reply to your letter referring to the above named, I first saw him on March 25th of this year, when he complained of marked lassitude, general malaise, headache, anorrhexia, and irritability. He stated he had been feeling increasingly unwell for about six months, but worse during the preceding week, and on the day previously had been forced to discontinue his work. He also said that he had intermittent gripping or burning pains over lower anterior chest several times daily for 2 - 3 weeks. On one occasion, about a month previous to this he had suddenly become weak when on top of a tank car and had fallen to the ground several feet below. I found nothing remarkable on physical examination at this time, and thought he probably was suffering from an onset of mild 'flu, which was prevalent at the time. I left on my holidays, and next time I saw him was on April 6th, when he came to my office. On reviewing the case I thought there was more to it than I previously had imagined, and referred him to the Outpatient Dept. of our hospital for a chest X-ray, which was negative, and blood examination, the report of which is as follows:

R.B.C.'s: 5,110,000; W.B.C.'s: 8,250; Hb: 90% Leitz.

Blood Smear: R.B.C.'s: Slightly microcytic
Stippled cells - 3%
WBC's: Polymorphs: 51%
Lymphs: 45%
Eosinophiles: 4%

In view of this I assumed his complaint to be due to chronic lead poisoning and began treatment $\overline{c}$ multi-vitamin products, dicalcium phosphate caps, and ammonium chloride tabs. I carried on this therapy for about five weeks, but patient did not show much progress. I, therefore, referred him to Dr. R. D. Roach of Moncton, copy of whose report is enclosed.

I believe this is a case of chronic poisoning due to lead, as a result of his occupation, and he may be quite some time showing improvement. I have followed Dr. Roach's suggestion with regard to present therapy.

I hope this may be of value to you. Any further information I may be able to give you will be forwarded gladly.

Yours very truly,

R. B. McKenzie

RBM: j
Encl.

R. D. ROACH, M. D., M. R. C. P.
Moncton, N. B.

Dr. Robert McKenzie,
Newcastle, N. B.

Dear Dr. McKenzie,

Your patient, Mr. [redacted] aged 39, of Douglastown, was here for examination on May 23rd.

He stated that he had not felt very well for six or seven months. The first thing he notices was a constant sensation of nausea but he did not actually vomit. This was present nearly every day. For about a year, he would have a pain in the left side of the chest and along the left costal margin which would be followed by quite a serere headache. He often noticed that these symptoms came on after he had been working with gasoline, that is, filling a tank and getting the fumes. He would them frequently get a dizzy sensation, and later on, these other symptoms would develop. The sensation which he gets over the left side of the chest, he describes as a "hauling or pulling sansation" and this would often last for two or three hours, These attacks of pain followed by headache would come every few days and sometimes he might have two attacks a day. The headaches would often last from three to five hours. He has been off work for about nine weeks but still has the same type of attacks.

He states that, as a rule, he sleeps well but wakens up frequently through the night. He frequently notices that he has attacks of dizziness on change of position and especially when holding the head down. He has also notices occasional numbness of the hands and arms. He has no cough but is short of breath when he takes the attacks of pain in the chest. He has noticed quite a bit of palpitation of the heart. He has never had any peripheral oedems. His appetite is fairly good and he has had no crampy pain in the abdomen but he still continues to get nauseated although not so much as he did fornerly. He does not appear to have any gaseous indigestion. He was quite constipated for a while but has been better in this way recently. He has no frequency of urination. There have been no symptoms referable to the joints. His present weight is about 157 pounds which is somewhat of a gain as he was down to 142 pounds, but his usual weight is about 168 pounds. He is quite sensitive to the cold and perspires rather easily.

On physical examination, the patient appeared to have a somewhat pale skin although the color of the mucous membranes is relatively good. The pulse was at a rate of about 78 per minute with occasional premature beats. There did not appear to be any sclerosis of the peripheral vessels. The blood pressure was 110/78. There was considerable tremor of the outstretched hands and some trembling of the eyelids.

On examination of the mouth, there did appear to be a slight bluish line in the gums around the teeth which were not in very good condition.

On examination of the heart by clinical methods, there did not appear to be any enlargement. No abnormal pulsations were noted over the praecordium. The heart sounds were of good quality and there was no particular accentuation of any of the sounds at any of the cardiac orifices. No significant murmurs

ared to be present.

On examination of the lung fields, they did not appear to reveal ny abnormality clinically, and the patient tells me that a chest X-ray was negative.

Examination of the abdomen did not appear to show any enlargement of the liver nor spleen nor any other abnormal abdominal masses. The neurological system appeared to be intact.

A blood count was done and showed the following results: Haemoblovin 97% (15.5 grams); Red Blood Cells 6,110,000; White Blood Cells 9,100; Color Index .8. The differential white count showed: Polymorphonuclears 64%; Small Lymphocytes 15%; Large Lymphocytes 18%; Monocytes 1%; Basophiles 1%; Eosinophiles 1%. The examination of the blood smear did not appear to show any definite abnormality as far as the red cells were concerned.

In view of the de-leading process which had been carried out, we took some X-rays of the ankles and the wrists, as we thought that possibly, in this process, there might be some signs showing by X-rays, even in a man of this age, although of course it is usually only in children that you get definite abnormalities without any treatment or without any de-leading. I would not think from the X-ray appearance that there were any diagnostic changes although t the epiphyseal line in the ankles looks perhaps a little dense.

The blood count shows a rather high red blood count and possibly a slightly high white count. It is questionalbe whether these are necessarily abnormal but they are certainly somewhat higher than found in the average person.

In regard to the possiblility of lead poisoning, I think that the most definite sign is the presence of what appears to be a definite lead line. Otherwise, the signs on physical examination are not conclusive. The patient of course, has not had many of the classical symptoms of lead poisoning such as abdominal cramps but the symptoms from which he has suffered could certainly be due to some form of intoxication and he presumably has been exposed, to a certain degree, to lead in handling the processed gasoline.

As he has now been on the de-leading process for some time, I would think that it would probably be advisable to gradually try to immobilize the lead if present again by gradually decreasing the amount of the de-leading substances.

As the patient appears to be in a somewhat nervous and irritable condition, possibly as the de-leading agents are discontinued, one could substitute tonic and slightly sedative agents to replace the de-leading substances. I would suggest that he be given a high calorie diet and multiple vitamin preparation such as Vitules, one capsule three times a day; and along with this, possibly a capsule of Phenobarbital and Atropine which would tend to relieve any spasm which might develop in the process. I would suggest Phenobarbital Gr $\frac{1}{2}$, Atropine Sulphate Gr 1/200; one capsule to be given three times a day.

I think that it would only be by observation of the effects of this procedure one could determine when he was in a condition to return to work again.

Thank you very much for referring the patient for examination.

Yours sincerely,

R. D. ROACH

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