

August 4, 1936

Dr. F. W. Porro
St. Lawrence County Laboratory
A. Barton Hepburn Hospital
Ogdensburg, New York

Dear Dr. Porro:

I am sending you herewith the original copy of our report on the analyses of the tissues of [REDACTED], which you were good enough to send me some days ago. I am retaining the other copies of this report, pending any comments which you may wish to make. If you are agreeable, I should like at a later date to send a copy of this report to Mr. Maxwell whom you will remember as one of the attorneys who talked with you in Ogdensburg.

You will note that the formalin was apparently not sufficiently contaminated with lead to make any significant difference in the analytical results. It is also quite apparent from these results that the embalming fluid could not have contaminated the tissues significantly. I think it may be accepted that there were no abnormal quantities of lead in the tissues of this man, and I do not believe one would be justified in exhuming the body for the sake of obtaining samples of bone or other tissues for further analyses. However, if it should be concluded that this is desirable, I should be very happy to make such other analyses as will be required.

You will be interested in knowing that these tissues did not contain abnormal quantities of bismuth. On the other hand, the lung, because of its very deep congestion, contained unusual quantities of iron, while the liver, particularly, showed rather more copper than is common in our experience.

Allow me to thank you for your courtesy and cooperation in letting me have these tissues. I am not looking forward especially to a second appearance in this case, and I have no wish to return to Ogdensburg for that purpose. However, I enjoyed very much the privilege of meeting you, and I hope we shall have an opportunity to meet again under different circumstances.

Cordially yours,

RAK:is

Robert A. Kehoe, M.D.

Certain tissues, identified by label as those of [REDACTED] were received from Doctor Porro from the St. Lawrence County Laboratory of the A. Barton Hepburn Hospital of Ogdensburg, New York, on July 18, 1936.

The package was opened by Dr. Kehoe and portions of the tissues were prepared for analysis by removing them from the containers in which they had been shipped, and introducing them into chemically clean jars, after shaving off the outside surface of each portion employed as a sample in order to remove any contamination which might have resulted from contact with a lead bearing surface. A sample of the formalin in which the tissues had been preserved was filtered free of suspended material and introduced into a small chemically clean container.

The unused portions of the organs were preserved in their original containers.

Two sets of the tissues were prepared as indicated above. One set was delivered to the spectrographic laboratory, and the other to the chemical analytical laboratory. The weights of the tissues, the quantities of lead found by the application of the two methods, and the calculated quantities per 100 grams of tissue are shown in the following table.

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Tissue	Weight in Grams	Analysis No.	Lead as Shown by Spectrographic Method	
			Mgs in sample	Mgs per 100 Grams
Liver	35.6	36A-2322	0.03	0.09-
Lung	71.8	36A-2320	0.04	0.06+
Heart	24.8	36A-2321	0.007	0.03
Spleen	10.5	36A-2319	0.007	0.07-

Tissue	Weight in Grams	Analysis No.	Lead as Shown by Dithizone Method	
			Mgs in sample	Mgs per 100 Grams
Liver	41.4	36A-2322	0.019	0.05
Lung	70.0	36A-2320	0.025	0.04
Heart	60.7	36A-2321	0.004	0.01
Spleen	14.6	36A-2319	0.001	0.01-

The sample of formalin (57.0 cc) yielded 0.007 mg. equivalent to 0.13 mg. per liter, when analysed spectrographically.

The results obtained by the two methods are all within the limits of the lead content of the tissues of normal individuals without occupational lead exposure. The two methods do not check each other as accurately as they do when dealing with identical samples, and they may not be expected to do so here because of the possibility of slight variations in the distribution of lead in different parts of the same organ. However, the dithizone method generally gives slightly lower results than the spectrographic. None of these tissues contained

hygienically significant quantities of lead. One may reasonably conclude that none of the tissues of the body contained significant quantities of lead at death, since the lead in the liver, especially, may be expected to indicate the general level of lead content of the body as a whole.

Signed:

Robert A. Kehoe, M.D.
Director - Kettering Laboratory of
Applied Physiology
College of Medicine
University of Cincinnati

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