

April 6, 1943

Dr. D. R. Johns,
204 First National Bank Building,
East Chicago, Indiana.

Dear Dr. Johns:

I find it rather difficult to answer your question of April 3, concerning the meaning of the reported analytical result on the spinal fluid. I can scarcely believe that the figure of 0.014 on the spinal fluid represents a percentage. It might conceivably be 0.014 mgs. per 100 ml. of spinal fluid, and thus be referred to as milligrams percent. Actually some such concentrations as that are found in the spinal fluid.

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I think it is fair to say that the range of lead concentrations in the spinal fluid of normal persons has not been determined with such accuracy and in a sufficient number of cases as to establish the normal range of values. Moreover, it cannot be said at present that analytical results on the spinal fluid have any diagnostic significance whatever. We have usually found the lead concentration in normal individuals to be less than 0.01 mgs. per 100 ml. In exposed persons we have sometimes found higher figures. We do not have a large enough series of results to justify sound conclusions.

Insofar as the literature is concerned, a great difficulty arises from the fact that a number of published results are impossibly high. The opportunities for contamination of the samples in the process of collection is very great. The needles must be of special make and must be carefully cleaned. Every step of the process must be carefully safeguarded against the possibility of contaminating the sample, and most samples have to be concentrated down in order to give measurable quantities of lead. No method of analysis can be used except the very sensitive variations of the Dithizone method, or the Spectrographic method. Samples have not been obtained very frequently in bonafide cases, and therefore our information on the subject is grossly inadequate. On the whole, therefore, I must say that this is an experimental problem and not one that has any present clinical significance.

Cordially yours,

Robert A. Kehoe, M. D.

D. R. JOHNS, M. D.
S. J. PETRONELLA, M. D.
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April 3, 1943.

Dr. Robert Kehoe,
Director Ketterling Laboratory,
University of Cincinnati,
Cincinnati, Ohio.

Dear Dr. Kehoe:

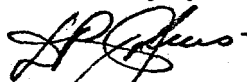
In going over the hospital records I noticed that the spinal fluid of a patient had been tested for the presence of lead and that a percentage of .0140 had been placed on the chart. How this percentage had been arrived at was not stated.

I wonder if you would give me some information in regard to the presence of lead in the spinal fluid.

I realize that you must be extremely busy these days and hope you will pardon me for troubling you with the above.

With best wishes, I remain

Very truly yours,



Dr D. R. 18.

DRJ:MB

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