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March 17th 1947.

Robert.A.Kehoe.M.D.
Kettering Laboratory of Applied Physiology.
University of Cincinnati,
CINCINNATI.
U.S.A.

Dear Dr Kehoe,

Re Plumism and Chronic Nephritis.

I was pleased to receive your air letter of March 1st and note your scepticism concerning the relationship between these two conditions. This is not surprising to me for my observations in adults are similar to yours but, in my mind, after studying the problem for nearly twenty years I am quite convinced of the relationship between the two, if the absorption is in young children.

It is possible too that climate plays a part in changing body metabolism and making the subject more susceptible to lead effects.

When I first began my investigation of the cause of juvenile Nephritis here I was seeking for a bacterio toxic origin but I was constantly turned back to lead.

Here in brief is the position -

Turner & Gibson

In the early nineties two skilled physicians, one a London M.D. and the other from Edinburgh observed from time to time cases with paralysis and or Encephalopathies. They at first thought they were due to Encephalitis but eventually came to the con-

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-clusion that they were due to lead intoxication. Dozens of expert physicians since their time have proved the correctness of their diagnosis - the association of Burton's blue line in the gums, punctate basophilia, selected areas of paralysis, optic neuritis and abnormal secretion of lead in the urine left no doubt whatsoever as to the correctness of the diagnosis. These cases occurred throughout Queensland . The problem was to find the source of lead and it was eventually tracked down to lead paint. In this country, owing to the heat, the lead powders after two or three years and this is brushed off readily or adheres to the fingers. Also, in the past, there was a characteristic type of dwelling built on high blocks with a verandah on which children were penned for many hours during the day. A further indicting observation was that almost invariably the affected children were nail biters or finger suckers. So far we had this indisputable fact that in this State of Queensland a certain number of children suffered from chronic lead intoxication from sucking powdered lead carbonate from verandah railings.

All this work was done by physicians before I came into the field. When I arrived here about twenty years ago I was amazed at the number of cases of juvenile Chronic Nephritis seen at the public hospitals either in their late teens or early twenties. I had rarely seen a case in the Southern States or in England or U.S.A. so I began a search for the cause looking for, as I have said, a bacterio toxic factor but, while I could find no such cause I was struck at the frequent association of lead poisoning in the childhood of these victims.

I then began to follow through the life history of every child having lead poisoning and I can now state even more dogmatically than I have before that, if a child is affected with lead posioning sufficiently severely to cause paralysis that child will almost invariably die of arterio-sclerotic nephritis in early adult life.

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These observations incriminating lead are not due to mere coincidence. I am convinced that lead plays a primary role. The important question to my mind is whether lead has a selective action on young vascular tissues. I think it does for one does not find the same effects in adults. The other question is whether our climate (tropical and sub-tropical) alters our metabolism and makes us more susceptible to its effects. I believe this must be so.

It is of interest that lead poisoning amongst children is now rarely if ever seen. This I attribute to many factors which I mention in my book such as prohibition of the use of lead paint in places accessible to children, smaller families, better care and hygiene of children, Creche and Kindergarten care of children and a change in the type of house.

It is a most fascinating problem. Unfortunately I am too busy in our large Clinic practice to pursue it any further.

A research group with time and facilities would find in it a most intriguing quest and it is my belief that such a body would be able to tell the world as a result of their work that minimal amounts of lead absorbed over long periods in susceptible infants and children is the cause of much of the arteriosclerosis seen in adult life.

If you could come out to do this work the Queensland Research Institute I feel sure would welcome you and would give you every facility in this very important work.

Can we hope to see you soon?

With greetings.

Yours sincerely

L J Jarvis Nye

Owing to the falling off in cases of juvenile plumbism the juvenile Chronic Nephritis cases are becoming rarer so this work should be undertaken without delay.

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