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STUDY, TREATMENT AND PREVENTION OF TUBERCULOSIS
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PHILADELPHIA

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Dr. Florence R. Sabin,
The Rockefeller Institute,
66th Street and York Avenue,
New York City.

Dear Dr. Sabin:

The dose of protein which I have been using in the guinea pigs for sensitizing them is 10 mgms. in 0.1 to 0.4 cc. per injection and each animal received 10 injections. The phosphatide control pigs received 20 mgms. at each injection, and the phosphatide plus protein pigs received 10 mgms. protein + 20 mgms. phosphatide. This amount of protein seems large but corresponds to the amount Opie and others usually used for sensitizing animals to other proteins.

At first I gave these injections intraperitoneally because I did not think the phosphatide was irritating, but the pigs began dying. Grossly there were adhesions, congestion, fluid, fibrin, abscesses and caseous and necrotic areas in the abdomen. Therefore, I changed to subcutaneous injections and since then they have not died. Locally, there is marked inflammation and persistent nodules in the skin of those pigs receiving the phosphatide alone as well as in those receiving the phosphatide plus protein.

So far the skin reactions obtained in these (protein + phosphatide) pigs are not conspicuously greater than ^{with 1mgm. protein} in those receiving the protein alone, and therefore, increased hypersensitivity has not occurred. The highest degree of hypersensitivity ever obtained by sensitizing even with the protein is much less than that which occurs in the tuberculous guinea pig. The strange thing is that the control pigs receiving phosphatide injections alone, give as great or greater skin reactions to 1 mgm. of the protein than do those receiving protein alone or those receiving protein plus phosphatide. This is hard to understand. Can you explain it? Is the phosphatide itself antigenic? It seems to be very irritating to the tissues in comparison with the protein.

Now that the point which I was after seems to be proved in the negative, and it would be wasteful to kill the pigs so prepared, I believe I will inoculate them with tubercle bacilli and watch them for longevity. It will serve as a check on my previous experiment with the protein sensitized pigs (Proc. Soc. Exper. Biol. & Med. 1933, 30, 1274) and give a comparison with the effect of phosphatide on the sensitization. Or have you already done this experiment? I know very little about the phosphatide reactions and would appreciate your opinion.

Cordially yours,

Florence R. Seibert.