

(see: White, William Ches. 12/16/27)

December 16, 1927.

My dear Doctor Anderson:

We have some very interesting things to report to you.

The carbohydrate was entirely negative in every way. The report on the fatty acid is, however, entirely different. As you remember, we dissolved the fatty acid in olive oil and gave it intraperitoneally. Both the controls with olive oil alone and the animals that had olive oil and fatty acid together were pretty nearly negative clinically. There was a little loss of weight, but that was all that we could make out. There were no very striking changes in the blood, no anemia of any moment, and no temperature. When we examined the peritoneal cavity, on the other hand, there was an overwhelming reaction. The olive oil itself stimulates practically all of the cells of the connective tissues to take up fat, so that there is a very marked reaction. The omentum is thickened and all the fibroblasts and all the clasmatocytes are loaded with refractile bodies. The only cell that does not seem to take up the fat is an occasional primitive cell along the vessels. In this material we found occasional small clumps of typical epithelioid cells.

The reaction with the olive oil plus fatty acid was much more extensive. The organs were simply matted together with extensive adhesions; the omentum was massively involved. It showed the same phagocytosis of fat on the part of the cells of the connective tissues, both fibroblasts and clasmatocytes, but beside this there was the same extensive reaction of epithelioid cells which we got with the original lipid material.

It is obvious that this material is more potent than the original lipid material and our reactions with the doses which we originally agreed upon are too extensive to make the complete analysis. So we are very anxious to have more of the fatty acid and have this plan: To give only 1 or 2 doses. As a matter of fact, we gave one animal one dose by mistake and then killed the animal, and could not believe that the extensive reaction could have followed the single dose. So, although this is only the first preliminary survey, it looks very hopeful that in the fatty acid we have a substance which will pay for a very extensive study.

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The fact that we got a few entirely typical epithelioid cells with olive oil alone seems to us to be an implication that fats in general are involved in this reaction.

We have heard of a new kind of syringe by which we can give a part of a drop for a dose. We must give up the use of olive oil, it is clear, because that gives so marked a reaction itself, and we mean to try the fatty acid entirely alone or with other mild substances. We thought, for example, that we might mix it with egg white.

You can imagine that we are very much interested and feel that our most important study now is to give a complete analysis of the effect of this fatty acid. It may contain the whole of the active principle involved in the lipid material.

Very cordially yours,

P.S. Will you kindly let us know how soon you could send us more of the fatty acid? We will be all ready to go ahead with it right after Christmas.

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