This excludes the possibility of dealing with post mortem or degenerative changes.

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A Specific Carbohydrate from Bacterium Enteritidis.

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During recent experiments with the soluble antigens of *Bacterium enteritidis,* large quantities of toxic Berkefeld filtrates of cultures grown in a simple salt medium were evaporated to dryness *in vacuo,* and this dry residue subsequently dialyzed. During the dialysis a grayish white precipitate settled out of the material in the dialyzing sac. This precipitate gave none of the usual protein tests; *i. e.,* biuret, Millon, vanillin, diazo, or ninhydrin; but it gave a brilliant Molisch test, indicating that it contained carbohydrate. Saline extracts of this material gave precipitin reactions with *B. enteritidis* antiserum, and not with any other serum tested.

Sixty per cent, by weight, of the material in this precipitate proved to be inorganic, and was chiefly diatomaceous earth from the Berkfeld filters used; 40 per cent was organic matter.

The carbohydrate was separated from the diatomaceous earth with difficulty. Either it is very slightly soluble in ordinary solvents, or it is adsorbed by the diatomaceous earth. The most satisfactory method tried so far has been the following: The dry carbohydrate-containing material was heated for 1 1/2 hours at 150° C. A weighed amount was placed in a small flask, distilled water added, and the suspension autoclaved at 5 pounds pressure for 3 hours. The diatomaceous earth was then removed by centrifugalization, and the supernatant fluid evaporated to dryness on a water bath. The small white residue adheres to the dish and does not redissolve readily, but it is sufficiently soluble to give a vivid Molisch test and a specific precipitin reaction with *Bacterium enteritidis* antiserum. In this way 77 per cent, by weight, of the organic matter was extracted from the diatomaceous earth mixture.

The usual method of hydrolyzing starch with N/2 HCl failed to yield any trace of sugars that reduce Fehling's solution. The carbohydrate was apparently unchanged by this acid treatment, for when the solution was evaporated to dryness on a water bath the residue still gave a specific precipitin test with *Bacterium enteritidis* antiserum.

The carbohydrate seems to be slightly dialyzable. An alkaline extract giving good Molisch and precipitin reactions was placed in a small collodion sac and dialyzed with a constant volume of distilled water. At the end of 48 hours the water outside the sac gave a faint Molisch test; the material inside the sac gave a much stronger test.

The evidence so far obtained seems to indicate that this carbohydrate obtained from *Bacterium enteritidis* is a stable, difficultly soluble polysaccharide. Its claim for specificity rests upon the fact that solutions containing it have been found consistently to give specific precipitin reactions with *Bacterium enteritidis* antisera, and that the intensity of this precipitin reaction seems to be correlated with the concentration of the carbohydrate in the solution. There was no protein demonstrable in this material, but the possibility that an undetectable amount might serve as an antigen for precipitation tests must not be ignored. There was not enough material left for a quantitative micro-nitrogen determination. Since the culture medium used contained an ammonium salt, such a procedure would have been of doubtful value.

So far, too little of this substance has been available to investigate its ability to stimulate specific antibody formation in animals. Preparation of material for further study is now in progress.

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Parathyroid Hypercalcemia and Anaphylactic Shock.

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It has been suggested that an increase in blood calcium might diminish anaphylactic shock, and that the hypercalcemia following the injection of parathyroid hormone might be useful in this connection.

To study this point a series of experiments have been carried out in dogs which had been sensitized to egg albumin.

Of 8 sensitized animals, 4 received 5 cc. of the Collip Para-thormone on the day preceding the injection of the shocking dose. Calcium determinations made on these animals before the reinjection of the egg albumin showed calcium levels from 12.6 to 15 mg. per