

The doctor adverted to some of the more interesting points in connection with the case. He thought the serum did some good in prolonging life. In looking into the sparse literature of the subject he had found one case of an acute septic peritonitis and metritis successfully treated with the serum.

Mr. J. J. Mackenzie was invited to discuss the question. He said :

The case was one of great interest to me, as it was the first opportunity I had had of administering the antistreptococcic serum. The first work in connection with this kind of serum was done in the Pasteur Institute by Marmorek. The results were published, and a short account of some cases of erysipelas in which it was used. There was little in the clinical notes that would allow one to judge of the value of the serum. The serum was got by inoculating horses with a virulent culture. The horses would take larger and larger doses until 200 c.c. were reached. It looked as if a condition of immunity had been established in the horse. Marmorek's work was not confirmed by Petrowsky, of Berlin. The work in connection with the antistreptococci serum presents this difficulty. Bacteriologists have confused the various forms of poisons secreted by micro-organisms, and have spoken of the toxins as substances very similar to one another. They have extended the results obtained in diphtheria and tetanus to other diseases. As a matter of fact, there are two sorts of poisons produced by these organisms. First, a soluble poison, similar to the toxin of diphtheria, excreted by the germs. But, in addition to these, there is a poison associated with the bodies of the germs which is eliminated at their deaths.

This latter toxin has an intense nephritic action upon the cells. In diphtheria this is of little importance, because the germs are thrown off very rapidly, and the poison will not pass into the system. In streptococcic and staphylococcic cases the germs are practically in closed cavities, and instead of being thrown off are continually absorbed. We might get an antistreptococcic serum which would counteract the soluble toxins, and be of service in the case if administered early, but it would not have any effect on the latter named poisons.

In the successful case referred to by the reader of the paper he was doubtful if the serum had any effect.

There would be a greater difference in the character of the antistreptococcic serum than there would be in the diphtheritic serum, as the streptococcus varies so tremendously in its virulence. So to get an active serum it would be necessary to get an exceedingly active culture. Marmorek's serum was so virulent that he claimed a single organism introduced into a rabbit would kill it in seventeen hours.

*(To be continued.)*