

antibodies. Some workers have been puzzled to know why we should add more infection when the animal already has the infection. If we add antitoxins we will rob the infection of the poisonous effects, but if we do this, we also destroy the powers of producing the antibodies. Thus in a boil,, the tissue round the boil does not respond to the demand for antitoxin. The blood, of course, is bactericidal, having opsonic properties, and the toxins pass into the blood and are neutralized. But if we put staphylococci into the tissues, say on the chest, they pass into the cells of the body, and react on them. But these cells respond and give a new accumulation of antibodies to the blood. Similarly, if the toxin is injected into a vein, there is no response, but when injected into tissues, there is at once a marked response. Unfortunately the practical results are not always as good as we might think they would be from our theoretical knowledge. However, they have been used successfully in staphylococci infections.

Just a word in the line of vaccine therapy. There are reasons why immunity does not give as good results as expected. In the first place, many bacterial poisons make no antibodies, so that for many diseases we can only attack the bacteria. Then a single injection only gives a feeble response and different people or animals respond very differently to the same amounts of antitoxic serum. Thus in an experiment, a horse that made the smallest amount of diphtheria antitoxin, made the largest amount of tetanus antitoxin. The fact that the antibodies accumulate so much in the blood and so little in the tissues, allows the blood to be strongly protected while the other tissues are not, and we might get infections in the tissues, even when the blood is immune. Thus the injection of antimeningococcic serum into the spinal canal has been much more successful than injection into the tissues or blood. Even the injection of a person's own serum from the blood into the spinal canal has been suggested by some authors as a means of rendering the treatment more successful. One of the greatest difficulties in getting immunity is that different varieties of bacteria vary so. Thus there are three or four different kinds of pneumococci, etc., each of which may make different antibodies, to some extent. Thus it is necessary in some cases to have a poly-serum which will neutralize many different kinds of toxins.

(To be Continued.)

Convocation.

The annual fall convocation was held on Wednesday night, Oct. 19th. Sir Sandford Fleming, Chancellor of the University, presided. The installation of the new professors made up the evening's proceedings. Dean Cappon presented Professor Grant, and Professor Scott presented Professor Dall. Dean Ellis and Professor Laird, of the Faculty of Education, were presented by Principal Gordon. The speeches were excellent and appropriately brief. It is to be deplored that more students do not attend Convocation. Those who failed to do so, on Wednesday night, are the poorer.