

smaller phagocytic action characteristic of the blood of the normal individual who served as a control; while the leucocytes of the normal individual exhibited the increased phagocytic action characteristic of the blood of the successfully immunized patient. This is also confirmed by similar results in connection with the tubercle bacillus. By thus bringing about phagocytosis of different organisms and studying the action of the blood fluids under different conditions, he was able to reach the following conclusions:—

1. That the opsonic power of the blood fluids disappears gradually on standing, even when the serum is kept in a sealed capsule sheltered from the light, and in five or six days stands a little more than half of what it was originally.

2. That the opsonic power of the blood fluid is but little impaired by the action of heat until these have been exposed to a temperature of above 50°C .

3. That the opsonic power of the blood serum is diminished when this last has been digested with typhoid bacteria.

4. The opsonic power of the blood fluids is diminished while the phagocytic capacity of the white blood corpuscles is preserved when the blood fluids and corpuscles are separately digested with Dahoia venom. In the anti-opsonic effect exerted by the venom on the blood fluids, we have probably the explanation of the reduced resistance to the septic invasion which supervenes upon viper bites.

5. That it seems probable that the bacteriolytic, bacteriacidal, and bacterio-opsonic effects exerted by the blood fluids, are each in their degree manifestations of a digestive power exerted by the blood fluids on bacteria brought into contact with them, and that we must also always take into consideration the opsonic effect.

By numerous experiments with the blood from different parts of the body, testing its phagocytic power, he has shown that with the ordinary infections and the tubercle bacilli it may be enunciated as a proposition of general application that the invading micro-organisms cultivate themselves in the organism in the regions of lowered bacteriotropic pressure, that is, the mass effect exerted upon the invading bacteria by the protective substances contained in the blood fluids is lowered in these places.

Every patient, at any rate in the early stage—in the uncomplicated stage—who is infected by bacteria under ordinary circumstances has got diminished resistance, and that deficiency of resistance does not reside in his white blood corpuscles, but in the fluids of the blood. Whether he is infected or not depends on his power of resistance.