

The Canadian Journal of Medicine and Surgery

A JOURNAL PUBLISHED MONTHLY IN THE INTERESTS OF
MEDICINE AND SURGERY

VOL XXIII.

TORONTO, APRIL, 1908.

NO. 4.

Original Contributions.

OPSONINS AND THE PRACTICAL RESULTS OF THERAPEUTIC INOCULATION WITH BACTERIAL VACCINES.*

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No subject of recent years has been before the medical world more prominently than the opsonic theory and inoculation with bacterial vaccines, and we must earnestly consider whether or not such an interest is justified. To reach a right conclusion we must view the whole subject from at least two standpoints: the one is that of the opsonic theory and the other that of the therapeutic inoculation with bacterial vaccines. Let us first review very briefly the theory and then devote most of our attention to the results achieved by inoculation with vaccines.

Opsonins are substances not yet isolated, but known to exist in the blood, whose function it is to unite with bacteria and prepare them for the leucocytes to attack and destroy. Without such preparation the fastidious leucocytes refuse to ingest bacteria, and so this defensive power of the organism is in abeyance. One of Wright's discoveries was this fact, and a second was a technic by which we are enabled to measure the quantity of opsonins in a given blood. The result of such measurement is expressed as the opsonic index. If, therefore, we say that a patient, the subject of tuberculous glands, has an opsonic index of 0.5 to the tubercle bacillus, we simply mean that his blood contains but one-half the normal quantity of those opsonins which are essential to combating the infection of the tubercle bacillus.

Such an observation is of great scientific interest, but as practical physicians we want to know its application to the treatment

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