

I will quote a case reported by Wright and Douglas of furunculosis. The patient had suffered from boils for four years; his opsonic index was 0.6 to *staphylococcus pyogenes* on the first examination, and 1.1 on the second. Dr. Wright inoculated him with 2,000,000,000 dead *staphylococci*. The next day there was a diminution of the quantity of opsonins from 1.1 to 0.78; a few days later the index was 1.4, and while the opsonic power was high another inoculation was given which resulted in first a negative phase, then a rapid reslow, and in a day or two a high tide of opsonic power, equal to twice the normal, was reached. The clinical result was eminently satisfactory. After several weeks of treatment the boils quite disappeared.

The general principles of treating any bacterial invasion after the manner of Sir Almroth Wright and Captain Douglas, are briefly:—

1. Isolate in pure culture the causative micro-organism.
2. Estimate the opsonic power of the patient's blood to this micro-organism.
3. If the opsonic index be at or below normal, prepare and standardize a vaccine from this micro-organism.
4. Inoculate the patient with this vaccine with appropriate doses and at proper intervals, as shown by a systematic estimation of the opsonic content of the patient's blood.

THE OPSONIC INDEX IN DIAGNOSIS:

Of what importance, if any, are opsonic methods of investigation in enabling us to arrive at an accurate diagnosis of a given case? Certain general principles have emerged from the study of many cases:—

1. Normal individuals, not subjects of any bacterial infection, present a constant opsonic power to the various pathogenic bacteria.
2. Individuals the subjects of a strictly localised infection, due to any micro-organism, show a lowered opsonic index to that particular micro-organism as compared with a normal person.
3. Individuals, subjects of systemic infection, for example acute pulmonary tuberculosis, show a high opsonic power, or an opsonic power fluctuating from high to low, and Dr. Wright believes that this fluctuating power is due to repeated inoculations by the patient of bacterial products from his own focus of disease, and that it is comparable to what occurs after artificial inoculation, namely, negative phase and positive phase, and so forth.

By far the most important practical application of these principles so far has been in the diagnosis of a systemic pulmonary tuberculosis from other conditions, or in eliminating tuberculosis from our consideration. The following is the opsonic method of the diagnosis of an obscure case:—