

was much irritation at the trigone of the bladder, causing intense pain on micturition.

The vesiculae seminales, vas and epididymis were not involved now or at any time; but to prevent the so-called "reverse currents of the vas" carrying the infection to the epididymis, suppositories of atropine were prescribed, as advised by Schindler and Low.

The patient was ordered to hospital, accordingly, on Oct. 20, 1912, and remained there until Nov. 8, 1912. On entrance, the temperature had reached 104° F.; pulse, 100; respiration, 24.

The condition of the patient not improving, a consultation was held, and it was suggested that the condition might be one of gonococcal pyelitis, complicated by streptococcal infection. Certain symptoms of meningeal irritation also suggested the possibility of a gonococcal meningitis. But the examination of the urine and of the cerebro-spinal fluid revealed nothing to verify it, though certain clinical symptoms, e.g., intense headache, photophobia, and stiffness of the cervical muscles rather suggested some meningeal irritation.

There was also a severe herpes of the face.

The patient was evidently suffering from some generalized infection; in other words, an acute septicaemia, in spite of repeated negative blood-cultures and negative Widal's.

Knowing how difficult it is to obtain cultures from the blood, it was considered wise to give the patient sera. Accordingly, 20 c.c. of anti-streptococcal serum were given. There was no very marked reaction, except a slight fall in temperature, and this did not last very long, the effects wearing off in 36 hours.

The patient now complained of a pain in the side, which seemed to be an involvement of the pleura, a serous membrane surface, such as the meninges. Here anti-pneumococcal serum was advised and given, 20 c.c. in 150 c.c. of normal saline, intravenously.

There was a sudden drop of the temperature and pulse for 12 hours, and then a return of hyperpyrexia as bad as ever.

We were now convinced that neither the streptococcus, nor typhoid, or influenza or pneumococcus were the causative agents, but that this was a case of gonococcal septicaemia. The germ certainly had not been isolated from the blood, but there were many clinical manifestations of its toxins in the circulation. Besides, one must remember that it is very probable that certain symptoms are due to the toxins—"gonotoxins" and others to the presence of the germ in the blood-stream, though they must always be present in small numbers, as Cheyne<sup>1</sup> states is the case in any acute septi-