

RELAPSE IN TYPHOID FEVER.

Dr. J. C. WILSON (Philadelphia), read a very interesting and able paper on this subject. He exhibited a number of temperature charts and said that special attention should be paid to the condition of the gall bladder as a causative factor in producing these relapses. He took this as his "working hypothesis," and proceeded to demonstrate the concomitant occurrence of a relapse with the renewed physical movements of the patient, the beginning of the administration of the more solid forms of food, the consequent peristalsis thus produced in the gall bladder, and the subsequent discharge of the accumulated contents of this cyst, containing large quantities of the bacillus typhosis into the intestine, thus producing the reinfection and the relapse. This, he thought, must be due to intrinsic and not to extrinsic infection. Dr. Wilson then spoke for some time on immunity, and concluded in this way: "Thus we have a 'working hypothesis' to explain relapse, which may be set forth in these terms: intrinsic re-infection from the gall bladder at a time when the intestines are stimulated by larger meals of a different character, an immunity not yet complete, and re-infection at once without a period of incubation." He perfectly understands that the change in blood serum which underlies the Widal test is not a process of immunity, but a process due to the infection. He closed his admirable paper as follows: "That the histological changes taking place in the solids and fluids of the body bringing about immunity are also gradual, and if the 'working hypothesis' stands at all, it demands that complete immunity shall be established in the primary attack, otherwise intrinsic reinfection, which gives rise to the relapse, could not possibly occur."

Dr. MCPHEDRAN thought Dr. Wilson's definition of relapse a good one, and that he drew a very clear picture of it. We know that some of the cases of typhoid may be an abortive attack, and he saw no reason why relapses also should not be abortive. The question of the gall bladder as being the source of the infection of these relapses, is a very important one, because of the suddenness of the outbreaks of symptoms. He thought it might be due more directly to the toxins in the bile.

Dr. J. L. DAVISON quoted Fagge, who refers to cases in Guy's Hospital that had died from the sequelæ of typhoid weeks and weeks after convalescence had been established, and on *post-mortem* examination Peyer's patches were found still infected, or still in a condition which showed evidences of the bacillus. In many cases the disease smoulders along for weeks, and while Dr. Wilson's hypothesis of the gall bladder is a reasonable one, it hardly explains why we should have cases of relapse after thirty days and later, and, therefore, Dr. Davison thinks there must be other storehouses for the retention of the specific germs than that.