

a convulsion may take the place of a rigor; thrombosis of branches of the mesenteric veins; pylephlebitis; malaria; mental shock; use of antipyretics, etc. All the writers insist that rigors do not affect materially the prognosis.

Along with the consideration of typhoid fever in a series of articles, such as these, must be included that now well recognized condition described under the term para-typhoid fever. The two articles devoted to the subject are comprehensive, and summarize practically all that is known of it. In a retrospect of medicine, written some eighteen months since, this subject was taken up, but, considering the comparative newness of the work and its importance, a resumé is justifiable.

"With refinements in the technique of the clinical application of the agglutination reactions, together with the more frequent application of cultural investigation of the blood in typhoid and other febrile diseases, has come the observation of a distinct set of cases of typhoid-like character, that are caused by organisms intermediate between the typhoid and the colon bacillus." The process of differentiation which began with Sir William Jenner, who separated typhoid from typhus, has continued until we now consider typhus, and typhoid and Malta fever and para-typhoid as distinct diseases with different causes. The name para-typhoid appears to have been first used by Achard and Benswade in 1896. The clinical features of cases of para-typhoid resemble those of typhoid so closely as to be indistinguishable without the Widal test. Doubtless the negative finding in cases clinically typhoid, together with the knowledge that an organism intermediate between the typhoid bacillus and the colon bacillus often infested the intestinal tract, led to the recognition of this new disease. The blood serum from such patients agglutinates both the A and B strains of paratyphoid. The disease in its occurrence is widespread, cases having been reported from England, France, Germany, Holland, United States, Canada, Philippine Islands and Cuba. It may be fatal and five cases such with anatomical findings have been reported. The summary of fatal cases as afforded by Wells and Scott, goes to show that paratyphoid infections are accompanied by changes quite different from those of typhoid, and there is but little to differentiate it anatomically from other septicaemias. The most constant change in the splenic enlargement similar to that in typhoid fever. Ulcers of the intestine have been found in only two cases, differing entirely from those of typhoid, and resembling those of dysentery. There was a practical absence of any alteration of Peyer's patches or of the solitary follicles. The mesenteric glands were almost unaltered. The liver in two cases showed typical focal necroses, differing from those of typhoid in not containing