

be ascribed to the toxine produced by this organism. I have often, therefore, relied upon this symptom as diagnostic of a calculus as the cause of a pain in the region of the liver, as well as for distinguishing jaundice due to impaction of a calculus from jaundice due to other causes.

Another bacterium has also been proved to initiate cholelithiasis by its entrance into the gall-bladder, and that is the typhoid bacillus. As far back as 1829 Louis drew attention to the frequency with which the gall-bladder was affected in typhoid fever, and now it has been shown that this bacillus involves this viscus in the great majority of at least the fatal cases. Thus Pratt, in thirty autopsies, found the typhoid bacillus in the gall-bladder in twenty-one, and Chiari in nineteen out of twenty-one. It is also extraordinary how long the typhoid bacillus may remain in the gall-bladder after the fever has ceased, and then set a cholecystitis or an attack of gall-stones. Thus Pratt, in the article referred to, quotes a case reported by Miller, in which the typhoid bacillus was isolated from the bile in the gall-bladder seven years after the fever. Van Dungern reports a case fourteen years after, and Droba one seventeen years, while Dufort reports nineteen cases of gall-stones in which the first attack followed typhoid, in twelve of them within six months. Cushing, in a review of cases of cholecystitis associated with gall-stones which were operated upon at the Johns Hopkins Hospital, found ten out of thirty-one gave a previous history of typhoid fever. Biliary calculi have also been produced experimentally in the gall-bladder in animals by the injection of typhoid bacilli by Gilbert, Fournier, and Richardson. I have no doubt that the number of gall-stones following typhoid fever will be oftener reported now that the attention of the profession is drawn to the subject, as they can be easier noted in private practice than in hospitals, owing to the hospital cases being soon lost sight of. I have myself lately had a case of a first attack of gall-stones in a lady about three months after the fever.

*Diagnosis.*—The diagnosis in a case of cholelithiasis may be easy enough, or it may be one of the most difficult to make out of any of the disorders in the abdomen, which is saying a good deal. Moreover, different from a stone in the urinary bladder, it is not enough to make the diagnosis of a calculus, but we must be further able to form an opinion of what else is going on as a result of the local trouble, because ordinarily we can wait as we see fit with a urinary calculus without immediate danger to life, while with a biliary calculus we may soon find ourselves under as much responsibility of decision as in any case of appendicitis. Thus, a man was admitted to the hospital a month ago from whom it