

closure of typhoid perforations, with six recoveries; but if only those cases are included in which there was no doubt as to the diagnosis, and counting only early laparotomies we have 23 operations with three recoveries. A debatable question is: Is typhoid perforation always fatal if left alone or treated medically? And this gives rise to another question, May we sometimes have a localized peritonitis due to infection of the peritoneum at the base of a typhoid ulcer without the occurrence of actual perforation?

Certain it is that recovery sometimes does follow the occurrence of symptoms which are thought by different observers to indicate perforation. In some of these cases, the symptoms of perforation are followed by abscess and five cases are reported of recovery following the incision and evacuation of localized collections of pus, weeks after symptoms of perforation had been noted. What about recovery following after signs of typhoid perforation and without the formation of abscess? Judging from what we have learned concerning a somewhat similar condition, appendicitis, it seems reasonable to conclude that typhoid ulcers may cause inflammation of the peritoneum covering their base, without perforation, or when adhesions to adjacent tissues occur early, an abscess may result from a small perforation, without the setting up of a general septic peritonitis. This would be more likely to occur in typhoid ulceration of the appendix vermiformis, than of the ileum, on account of its constant changing of position during peristalsis.

Again geographical position may determine the subsequent course of events, as for instance, in the case of a typhoid perforation of the colon, the infection might be extra peritoneal, and abscess would then be the natural sequel.

What then is the duty of the physician and surgeon when called to deal with symptoms of typhoid perforation. I think unquestionably more lives will be saved by operation than by any other method of treatment. If it is found that the condition is localized, so much the better for the patient. If intestinal contents are escaping into the general peritoneal cavity, then certainly, closure of the opening and cleansing of the peritoneal cavity give the patient the only possible chance of recovery. Only when the symptoms point to a perforation of the colon would one be justified in advising delay.

The operation should not be performed while the patient is in a condition of shock, but the sooner after the reaction is established the better.

I believe that once the diagnosis is made, a hypodermic injection of morphia is good treatment. It lessens the pain, quiets the nervous