only in interest that of recent work on gastric and duodenal ulcers, with their manifold complications. The operative demand may be for any condition ranging from an ordinary catarrh of the bile passages to acute phlegmonous cholecystitis and gangrene of the gall-bladder.

In the large majority of cases, gall-stones cause but few symptoms, and throughout life they may be carried around with but very little inconvenience, mainly occasioned by irregular attacks of supposed indigetison. When, however, a stone leaves the bladder on its migration to the intestine, severe symptoms are produced, such as intense colic caused by its passage through the ducts, dilatation of the gall-bladder or acute cholecystitis, as a result of its impaction in the cystic duct; infective cholangitis and jaundice, should there be obstruction or semi-obstruction of the ductus choledochus. Furthermore, the continued presence of a stone impacted in one of the ducts is liable to lead to ulceration, terminating in perforation and a general peritonitis, should the perforation lead into the general abdominal cavity; or a permanent fistula, should it find its way into any part of the intestinal tract. Superficial fistulae are known, where a gall-stone has suppurated its way through the anterior abdominal wall.

Perhaps the most intense pain the human being may be called upon to suffer is occasionally produced by the passage of a stone through one of the biliary ducts. The passage of such a stone does not always cause much suffering, but in many cases the pain is truly great. It appears, as a rule, suddenly, without any warning, though occasionally prodromal symptoms may have been present. In many instances it disappears as suddenly as it commenced. Commencing in the right hypochondrium, it radiates to the right shoulder blade. In contradistinction to the pain produced by gastric or duodenal ulcer, this biliary colic has no relation whatever to the ingestion of food. This pain is often associated with chills and a rise in temperature of from three to four degrees.

As in an acute attack of appendicitis, tenderness may be elicited over McBurney's point, so in biliary colic tenderness may be and usually is present in the region of the gall-bladder.

Vomiting, as a rule paroxysmal, is present at some time during the attack. It usually occurs toward the end of the seizure. In fact, it may be a determining feature in its cessation. In many instances the first sign of relief is experienced immediately after a severe vomiting spell. At first the ejected matter is ordinary stomach contents, to be followed by intensely bitter bile, if the common duct is free.

When a stone becomes so lodged in the cystic duct as to cause obstruction, there will be almost immediate dilatation of the gall-bladder.