

was difficult to obtain any satisfactory account of the beginning of his illness, or any statement that he had suffered from symptoms of gall-stones. He was often delirious and had a dry tongue, and a low fever simulating typhoid. He was very little jaundiced, and his most marked symptom was a tenderness on palpation at the epigastrium. An indistinct swelling could be made out in the region of the gall-bladder, but owing to muscular rigidity it was difficult to map out its extent. The blood-count showed a decided hyperleucocytosis, whereupon I had him transferred to my colleague, Dr. Brewer, for immediate operation. While he was struggling as he was going under ether, his gall-bladder burst through a gangrenous patch in its wall, but with all that he was speedily relieved from danger and made an uninterrupted recovery.

Hence, as in his case, we may have as a result of cholelithiasis general septicemia set in with ulceration of the gall-bladder and ducts, permitting, if not interfering with, the escape of the calculi into the adjoining parts, or leading to a rapidly fatal general peritonitis, or to abscess of the liver, or to slower processes causing extensive adhesions of the gall-bladder to the liver and intestines, until the symptoms due to these complications may wholly obscure the original ones first caused by the gall-stones. With the great majority, however, there will be a history of preceding attacks of biliary colic, as well as other prodromic symptoms which it is important to note as elements in the early diagnosis, so that we can the better appreciate the significance of those progressive developments which indicate that the time has come for medicine to give place to surgery.

*Pain.*—As regards the attacks, pain is the earliest symptom, and, as is always the case, pain is a symptom which repay study more than any other. In all typical cases it is very sudden, and this of itself disproves the view of Kehr and other recent writers that biliary colic is not due to the passage of a calculus from the gall-bladder through the narrow ducts to the intestine, but that it is always due to an inflammation of the gall-bladder. No other inflammatory pain that can be cited is so sudden in its onset or so quickly severe. In fact, it may kill outright, as occurred in a case of an acquaintance of mine. While it is true that inflammation may quickly follow in the parts behind the impaction, as inflammation always follows the sudden closure of any tube, *e.g.*, a bronchus, yet a biliary colic in its pain is exactly of the same nature as the colic caused by a calculus impacted in a ureter, and certainly that is not due to inflammation of either ureter or kidney. Moreover, it has all the characteristics of stretching pains, which are different from those of either inflammatory pains, pressure pains, or neuralgic pains.