REPORT ON A CASE OF CHRONIC OBLITERATIVE CHOLANGITIS

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Chronic obliterative cholangitis is a condition arising from a slowly progressive inflammatory change in the common bile duct, resulting in obliteration of the duct and the development of jaundice. The condition usually, but not necessarily, occurs after cholecystectomy. The symptoms do not arise immediately after the operation but take a variable time to develop, in some cases a few months and in others several years. After the diseased gall bladder has been removed the inflammatory condition in the common bile duct remains and after a lapse of time the condition ends in fibrosis and scarring, causing an obstructive jaundice. Jaundice arising after a gall bladder operation suggests that the bile ducts have been injured at the time of operation, and certainly in about 80 per cent. of cases of benign strictures of the common bile duct surgical trauma is the main cause. A residual stone in the common bile duct accounts for a large proportion of the remaining cases, but undoubtedly obliterative cholangitis is the real cause in many cases attributed to trauma or to a remaining stone in the common bile duct.

There are several clinical signs helpful in the diagnosis of these cases. In some cases, prior to the cholecystectomy, the patient may have complained of shivering attacks associated with fever, and in addition attacks of a mild degree of jaundice, indicative of Charcot's intermittent fever. At the time of the cholecystectomy, when the common bile duct is drained, the nature of the biliary drainage is indicative of a cholangitis, the biliary fluid being sandy, muddy or gritty. Furthermore, there may be some degree of slowness in the closure of the biliary fistula when the T tube has been removed; instead of the fistula drying up in 48 to 72 hours, there may be drainage of bile for two to three weeks after the tube has been taken out. Such signs as these should give rise to suspicion of the existence of an active condition in the bile duct and the possibility of the development, in the course of time, of an obliterative cholangitis.

The obliterative changes which are the final results of the inflammatory process vary in their length in the common bile duct. They have been described as involving the whole length of the duct and even extending into the intra-hepatic ducts. In the case described below, the retro-duodenal portion of the common bile duct only was involved.

Chronic obliterative cholangitis usually occurs in cases of neglected gall bladder disease where the inflammation has spread from the gall bladder into the ductal system. Judd states that when a stricture arises from this condition the obstruction is usually not complete, and this was confirmed in the case to be described, in which the stools were never absolutely clay-coloured. He also states that when the common duct is opened at the second operation, there is not the rush of bile that is seen in cases of traumatic stricture. This again was observed in the case described below.

Case History

Mrs. L. B., aged 66 years, was first seen in October 1952. She gave the usual history of 'gall bladder trouble,' such as pain in the right subcostal region for years, the pain going through to the back. In addition, she said she suffered from shivering attacks with fever now and again. Four years previously she had an attack of yellow jaundice.

A cholecystogram (double dose dye) showed poor concentration of the dye in the gall bladder and a number of partly calcified gall stones. In November 1952, a diseased gall bladder containing numerous stones was removed. The common bile duct was explored at the time of operation and because of the presence of numerous stones in the gall bladder, it was decided to do a cholangiogram on the table to make sure of the patency of the common bile duct into the duodenum (Fig. 1). This showed the dye running into the duodenum with the minimum of hold-up in the common bile duct. This was very satisfactory.

FIG. 1.—Cholangiogram done at the first operation when the gall bladder was removed. This shows the dye running into the duodenum and running back into the pyloric end of the stomach. There is no hold up whatsoever in the common bile duct.

FIG. 2.—Diagram showing the implantation of the common bile duct into the first part of the duodenum (diagrammatic, after Maingot).

factory, as it gave additional evidence (besides the exploration of the common bile duct by means of probes and washing it out) that there was no obstruction from possible residual stones in the terminal part of the duct.

After operation, the patient continued to pass muddy, dirty bile through her drainage tube in the common bile duct, and because of this the tube was kept in longer than usual. Eventually the tube was taken out, but she still discharged bile through the fistula left from the drainage tube for a further 10 days.

Approximately six months after her operation she presented herself in the Outpatients' Department with jaundice. This was mild in nature and was associated with generalized pruritus. The stools were slightly coloured. She was put on testosterone 5 mg. t.d.s. to relieve her pruritus, with great benefit. Further investigations were carried out, the results of which are given below and compared with the post-operative investigations.

On September 9, 1953, the second operation was carried out. After the common bile duct was exposed and opened, a fibrous stricture was found to be present in the duct, commencing just above the duodenum and extending behind the duodenum. Although it was possible to pass a probe or a bougie upwards into the liver, the duct down-

wards was impassable. The common bile duct itself at the time of operation was not unduly distended and when opened the bile did not gush out, thus suggesting the presence of an incomplete blockage. The common bile duct was transected just above the duodenum and the upper end was re-implanted into the duodenum (Fig. 2). Following this the patient made an uneventful recovery. Three days after the re-implantation the jaundice began to subside and the first stool passed after operation was normal in colour. She was discharged from hospital on September 29, 1953.

The following are the investigations which were carried out:

	Sept. 4, 1953 (just before operation)	Sept. 29, 1953 (during post-operative period)
Alkaline phosphatase	18.7 units	4.0 units
Thymol turbidity	1.5 units	1.5 units
Colloidal gold	negative	00000
Serum bilirubin	8.0 mg. %	bilirubin 1.8 mg. % direct reaction delayed
Blood urea	30 mg. %	25 mg. %

Summary and Conclusions

Although the vast majority of cases of jaundice coming on after a gall bladder operation can be attributed to injury to the common bile duct, obliterative cholangitis resulting in stenosis must be borne in mind.

A muddy and gritty biliary drainage should

suggest that the common bile duct has to accommodate an infective bile which can set up inflammatory changes in its walls. In addition, a history prior to cholecystectomy of attacks of intermittent fever (Charcot type) is suggestive of duct changes which may end in obliterative cholangitis. In cases where numerous stones are found at cholecystectomy, or where the bile when examined is gritty, muddy or dirty-looking, a cholangiogram is worth carrying out on the table. It makes doubly sure (in addition to exploring the common bile duct) that there is no obstruction of the duct at its entrance to the duodenum. In addition it gives the surgeon the satisfaction of

knowing that there is no question of injury to the duct should jaundice develop subsequent to the cholecystectomy.

Chronic obliterative cholangitis may develop in neglected gall bladder cases, and cholecystectomy should be advised in the early stages of cholecystitis in order to prevent this pathological condition developing.

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