CHOLEDOCHUS CYST

REPORT OF A CASE WITH REFERENCES TO THE LITERATURE

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Idiopathic choledochus cyst is an extremely rare anomaly of the common bile-duct. Langenbuch, up to 1897, was able to find but a single case, that of Konitzky. Lavenson, in 1909, collected 28 cases of cysts of the common bile-duct. These included cases other than those of the idiopathic variety. Schloessman, in 1911, collected 16 cases which he considered represented all the cases of idiopathic choledochus cyst in the literature up to that time. Kehr, in 1915, after a careful study of the literature, places the number of idiopathic choledochus cysts at 19, including Konitzky's case. Kehr, himself, in his extensive experience had not observed a single case.

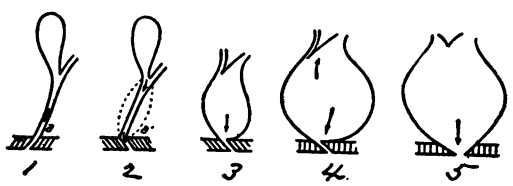

Fig. 1.—Rostowzew's explanation of the formation of choledochus cyst.

Idiopathic choledochus cyst is not to be confused with enlargement of the choledochus due to stone or tumor. Langenbuch, who was the first to direct attention to this condition of idiopathic choledochus cyst, was familiar with cases in which the common duct was enormously enlarged from obstruction, and differentiated Konitzky's case therefrom.

The cases of so-called idiopathic choledochus cyst are congenital anomalies. The enlargement is most marked in the middle and upper portion of the common duct. Rostowzew gives a plausible explanation of their occurrence. This is shown in the accompanying line drawings. In Fig. 1 is shown the normal course of the common bile-duct following a practically straight course through the duodenal wall; in Fig. 1, 2, the course of the duct in its passage through the wall of the duodenum is changed so that the duodenal portion is at an angle with the portion of the duct extraduodenal. The interference with the *direct* flow of bile

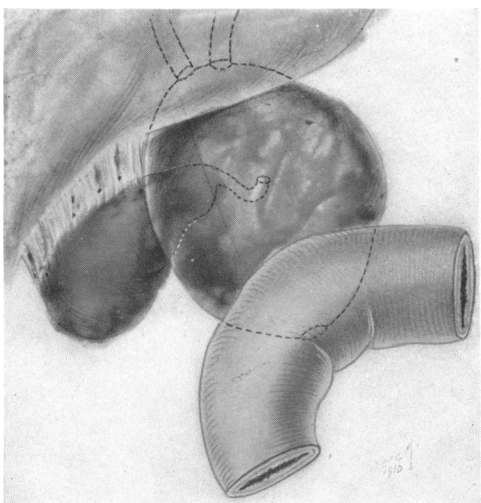

FIG. 2.—Choledochus cyst.

into the duodenum results, according to Rostowzew, in an enlargement of the common duct, as shown in Fig. 1, 3, 4 and 5. This explanation, while plausible, does not meet all the requirements of the anomalous condition. To the writer's mind the condition is one of congenital malformation. This view coincides with all the anatomical data at hand.

G. H., No. 33,366. A. C., male, aged twenty-two. Admitted December 2, 1915.

Operation, December 7, 1915, cholecystectomy, choledochotomy.

Chief Complaint.—Pain in epigastrium extending along the lower border of the ribs on the right side to the back; nausea but no vomiting.

Present Illness.—Began November 25, after breakfast, when patient complained of severe cramps in the epigastrium; cold sweat, nausea. A physician was called and gave a hypodermic injection which relieved the pain. The following day there was a similar attack, but more severe; the area of pain at this attack was at the tip of the tenth rib and radiated to the back just to the right of the vertebral column. It felt as if a knife was sticking in his back. When he took medicine (sedative?) the pain subsided. The next day he had a similar attack but less severe and accompanied by soreness in the back. From this time to the time of operation there were many slight attacks of pain in the epigastrium, stabbing in character and radiating to the back. There was loss of appetite and constipation. People told him he looked yellow during these attacks, and the stools were clay colored.

Examination.—The abdomen was somewhat rigid and distended; there was tenderness over the gall-bladder region and slight tenderness to the right of the vertebral column, just below the rib border; slight fever.

Diagnosis.—Cholecystitis acute. Cholangeitis.

Operation (December 7, 1915).—High right rectus incision; there was no large intestine on the right side of the abdomen. The large intestine was down in the pelvis. The mesentery of the large intestine seemed to originate below the mesentery of the small intestine. The gall-bladder was enlarged and slightly thickened; no external evidence of acute inflammation. No gall-stones found; the cystic duct was enlarged and tortuous. The common duct was dilated to the size of a large orange and had the appearance of a cyst (Fig. 2). Evidence of chronic pancreatitis was present (areas of old fat necrosis). The appendix was removed in the usual manner. The gall-bladder was removed. So enormous was

the dilatation of the common duct that the possibility of an echinococcus cyst was thought of. A hypodermic needle was introduced into the duct and clear bile withdrawn. The duct was then opened. Its walls were very thin. There was an immediate escape of clear bile. The opening in the duct was enlarged sufficiently to admit the finger. Digital examination disclosed a smooth-walled cavity with four openings; two above, which were undoubtedly the hepatic duct openings; one laterally, the cystic duct opening; one below, the opening of the common duct into the duodenum. This latter was large enough to admit the tip of the examining finger into the duodenum; the other openings were somewhat smaller. All the openings were firmly resistant to further dilatation. The common duct was drained by a small rubber tube fastened with a purse-string of plain catgut. A split tube drain was placed in the foramen of Winslow.

Pathological Examination.—Macroscopic: the gall-bladder was somewhat enlarged, the walls thickened, the cystic duct enlarged, thickened and tortuous and entered the gall-bladder at a more acute angle than usual. The mucous membrane was thickened, the epithelium lacking in places. Microscopic diagnosis, *cholecystitis chronica.* Culture from the common duct negative.

After Course.—There was very little fever; three days after operation the temperature was normal. Pulse went up to 130 after operation and gradually came down to normal on the fourth day; after that it varied between normal and 100. Respiration remained normal throughout. Patient had slight pain, vomited once or twice during the first few days after operation. There was quite a little bloody discharge for two or three days from the split tube drain and wound. A week after operation pulse, temperature and respiration were practically normal; pulse of fair quality. There was bile drainage through the tube; no complaint of pain. A blood clot formed in the wound and became infected. After cleansing the wound was united by secondary suture. The second week patient began to complain of slight pain in the wound region and there was increased drainage of bile through the tube. Practically all the bile escaped externally. This was strained and injected by rectal tube in the colon, where it was moderately well tolerated. The stools were clay colored throughout. From this time on the patient began to lose strength slowly. On the twelfth day a perirectal abscess was incised. There was occasional vomiting. Cardiac stimulation became necessary. In spite of all efforts the patient gradually lost weight and strength; his pulse became very weak and gradually imperceptible until De-

cember 29, 1915, when he died of asthenia. For twelve hours before death there was no escape of bile from the wound.

Autopsy was refused.

Remarks.—This condition is so rare that it perhaps is idle to discuss the possibility of cure. Most of these cases die in childhood from cholangeitis; the dilated duodenal opening predisposing to early infection. Should another case present, however, I would resect as much of the common duct as possible in an attempt to reduce the duct to approximately normal size; although owing to the anatomical anomaly present at the opening of the duct into the duodenal, it is quite improbable that such an attempt would be successful.

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