



The Birmingham
Children's Hospital
NHS Trust

CHOLEDOCHOL CYST

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WHAT IS A CHOLEDOCHOL CYST ?

Breakdown of terms-:

Chole = relating to bile
Dochol = Duct or tube
Cyst = Fluid collection

Choledochol cyst is a dilatation (swelling) of part of the bile duct system outside of the liver. Fluid collects within the swelling causing pressure on the ducts which leads to intermittent or permanent obstruction to the flow of bile.

See Diagram 1 for anatomy of Biliary System

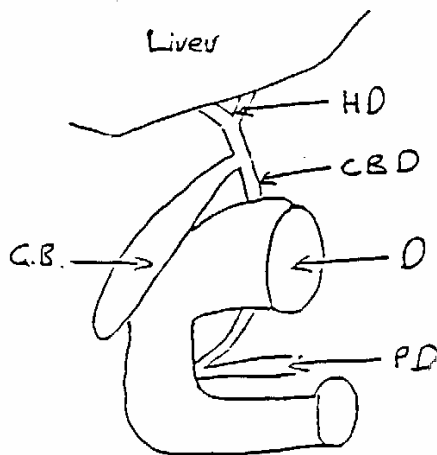


Diagram 1

The condition is rare; with the incidence in females

outnumbering males three to one. Three-quarters of cases present before 20 years of age. It often lies dormant and may in some cases be found accidentally while an individual is undergoing medical examination for other conditions or as a routine medical examination. There are a number of types.

Type 1 This is the commonest type in which the cyst affects the common bile duct causing narrowing- obstruction. The hepatic ducts may not be affected. See Diagram 2.

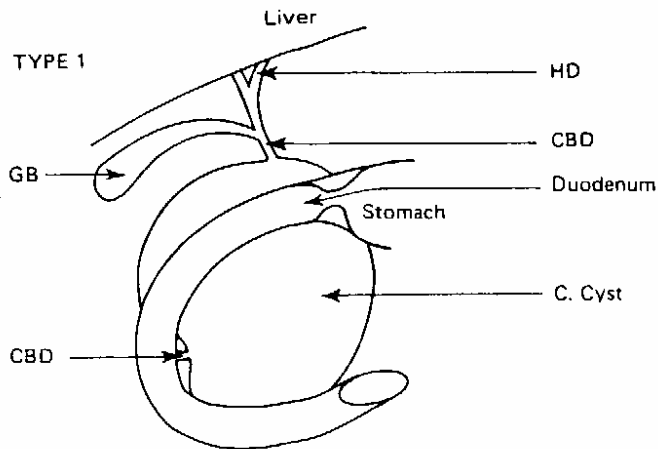


Diagram 2

Type 2 This is the rarest type in which fluid collects in a diverticulum (pouch in the wall) of the common bile duct. See Diagram 3

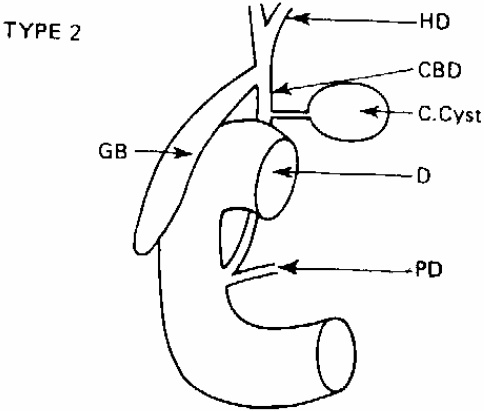


Diagram 3

Type 3 In this type, the common bile duct protrudes into the duodenum (choledochoceles). See Diagram 4.

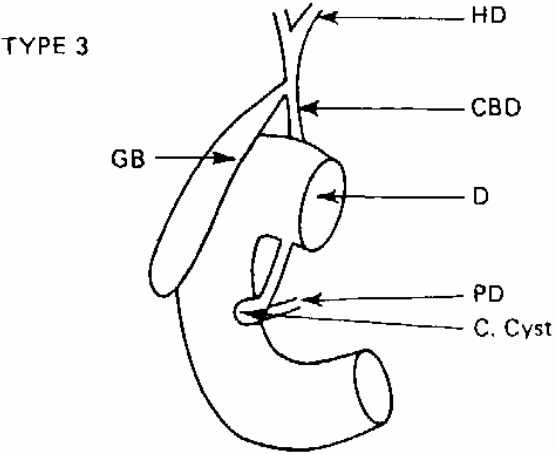


Diagram 4

Type 4 Other experts add a type 4 in which the intra-hepatic bile ducts are dilated with or without dilation of the extra-hepatic ducts. See diagram 5.

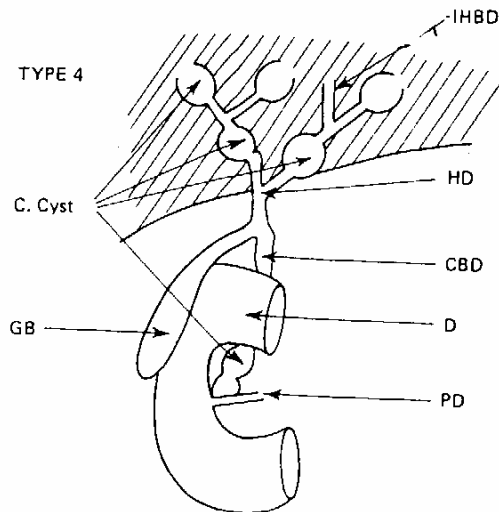


Diagram 5

Abbreviations for the diagrams:

HD - Hepatic duct

CBD - Common bile duct

GB - Gallbladder

D - Duodenum

PD - Pancreatic duct

IHBD- Intrahepatic bile duct

WHAT ARE THE SIGNS AND SYMPTOMS OF A CHOLEDOCHOL CYST ?

The presentation is very variable and can include any of the following:

- Pale stool (may be fluctuating)
- Dark urine (may be fluctuating)
- Jaundice (may be fluctuating)
- Intermittent abdominal pain
- Cholangitis (infection of the liver)
- Acute pancreatitis

HOW IS A CHOLEDOCHOL CYST DIAGNOSED ?

The infant that presents with a cyst may be clinically indistinguishable from a child with Biliary atresia. An older child may be diagnosed by investigations for abdominal pain or may present as a medical emergency with cholangitis (infection of the liver) or perforation of the cyst.

Ultrasound of the liver and the Biliary tree will show an echo free area (the cystic mass) below the porta hepatic (the area where the bile ducts exit from the liver).

Barium studies may be performed and show any duodenal abnormalities.

ERCP (Endoscopic Retrograde Cholangio-Pancreatography) may be performed in order to visualise the ducts and the cyst. They are shown up on special X rays

WHAT IS THE TREATMENT FOR A CHOLEDOCHOL CYST ?

In the past, cysts were surgically drained with many resulting complication. Now the usual procedure is to completely excise the cyst in order to cut down- the risks of post-operative complications. The procedure

performed will preserve the hepatic ducts if possible but may mean complete excision of the extra hepatic Biliary tree in which case a loop of bowel is stitched into the liver (see diagram 6). In the majority of cases the gall bladder is removed which does not effect long term recovery. Viable hepatic ducts are stitched into a loop of jejunum up to 30cms long. See diagram 6

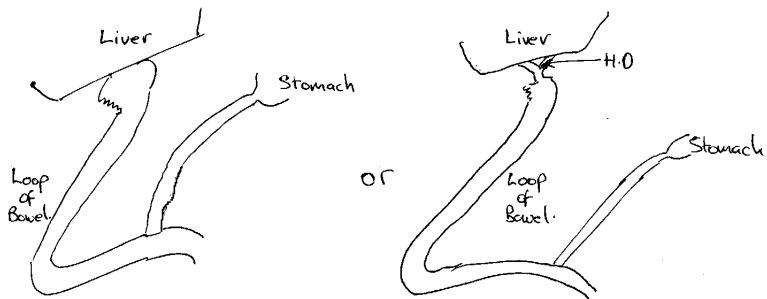


Diagram 6

WHAT IS THE PROGNOSIS FOR A CHILD WITH A CHOLEDOCHOL CYST ?

If surgery is performed early, the liver recovers quickly and prognosis is good.

There is a long term risk of infection spreading from the bowel to the liver now that the bowel, which is full of bacteria, is nearer to the liver. Antibiotics may be given to minimise the risk of this happening.

If surgery is late or preceded by infection of the abdomen (peritonitis), then some liver damage may occur.

GG/06 October 1998