

How you deal with common bile duct stone?

CBD stones are found in 6-12% of patients with gallstone & the incidence increase with age. The vast majority of CBD stones are originated in the gall bladder so they are secondary stones.

Primary ductal stones are mainly brown pigment stones. Stone low down in the CBD can be covered by bowel gas, so not seen by ultrasound.

Dilated CBD (>8mm in diameter) on ultrasound in patient with gallstone, jaundice & biliary pain is highly suggestive of CBD stone.

- ❖ If there is suggestion of CBD stones, but not seen by ultrasound, magnetic resonance cholangiography will provide excellent anatomic details & can show the stone in the lower CBD.
- ❖ Endoscopic cholangiography is the gold standard for diagnosing CBD stones.
- ❖ Stones in the CBD can be detected either by preoperative cholangiography or during an intraoperative cholangiography.
- ❖ If it is revealed on ERCP, do sphincterotomy & clear the duct of stones followed by laparoscopic cholecystectomy.
- ❖ If CBD stones revealed during intra operative cholangiography, do laparoscopic exploration of the CBD through the cystic duct, or explore via choledochotomy & retrieve the stone laparoscopically.
- ❖ If the expertise & or instruments for laparoscopic CBD exploration are not available, a drain should be left adjacent to the cystic duct & the patient scheduled for endoscopic sphincterotomy the following day.
- ❖ An open CBD exploration is an option if endoscopic method has already been tried or is for some reason not feasible.
- ❖ If choledochotomy is performed, T tube is left in place.
- ❖ Stones impacted in the ampulla may be difficult for both endoscopic ductal clearance as well as CBD exploration (laparoscopically or open). In these circumstances, the CBD is usually quite dilated (2cm diameter).

Here a choledochoduodenostomy or Roux en y choledochojejunostomy may be the best option for these circumstances or transduodenal sphincteroplasty.

- ❖ Retained or recurrent stones following cholecystectomy are best treated endoscopically.
- ❖ If the stones were deliberately left in place at the time of surgery or diagnosed shortly after cholecystectomy, they are called retained stones.

Retained stones can be removed either endoscopically or via the T-tube tract once it has become mature (2-4 weeks).

The tube is then removed & a catheter is passed through the tract in the CBD under fluoroscopic guidance, the stone are retrieved with baskets or balloon.

- ❖ If CBD stone are diagnosed months or years following cholecystectomy, they are called recurrent. It is removed endoscopically.

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