

### **How you manage a patient with cholangitis**

**Cholangitis** is – serious condition – need urgent diagnosis with ultrasound – need urgent resuscitation – need urgent antibiotics – need immediate relief of obstruction by drainage (endoscopic or transhepatic).

Any obstruction in the extra hepatic biliary tree (mainly the obstruction affect the common bile duct and mainly it is caused by stone), any obstruction will cause stasis of bile, then stone formation.

Stone in the bile duct may lead to obstruction or infection.

Stones in the bile duct are more often associated with infected bile (80%) than are stones in the gallbladder.

Biliary contamination alone does not lead to clinical cholangitis.

The combination of both significant bacterial contamination & biliary obstruction is required for its development.

#### **Symptoms & signs**

Patient with cholangitis usually have bouts of pain, jaundice & fever (Charcot triad), the patient is ill & feel unwell. Examination reveal tenderness at the epigastric and right hypochondrial area.

According to the Courvoisier law, if the obstruction of the CBD is caused by stone, distension of the gall bladder seldom occur because the organ is already shriveled.

If the obstruction is caused by causes other than the stone as pancreatic or periampullary tumour, the gallbladder may be well distended and can be palpated.

#### **Management**

It is essential to determine whether the jaundice is due to liver disease, disease with in the duct such as sclerosing cholangitis, or obstruction. The differentiation of the above can be achieved by ultrasound, liver function test and may be liver biopsy if the duct is not dilated as in sclerosing cholangitis.

MRI or ERCP will demarcate the nature of the obstruction. Ultrasound can shows gall stones, dilated ducts & the site of obstruction.

The definitive diagnostic test is ER cholangiography.

If endoscopic retrograde cholangiography is not available, percutaneous transhepatic cholangiography is indicated.

Both ERC & PTC will;

- 1) Show the level & the cause of obstruction.
- 2) Allow culture of bile.
- 3) Possibly allow removal of stones if present.
- 4) Drainage of the bile ducts with drainage catheter or stent.

CT scan & MRI will show pancreatic & periampullary mass.

Full supportive measures with rehydration, attention to clotting, exclusion of diabetes & starting appropriate broad spectrum antibiotics, then relief of obstruction is essential.

≈ 15% of patients not respond to intravenous antibiotics & fluid & required biliary decompression. Biliary decompression may be accomplished 1) Endoscopically, 2) percutaneously or 3) surgically.

The selection of the procedure based on the level and the nature of the biliary obstruction.

Patient with cholidocholithiasis or periampullary malignancy are best approached endoscopically with sphincterotomy, stone removal or by placing biliary stent.

If the obstruction is more proximal or perihilar or when a stricture in biliary-enteric anastomosis is the cause or endoscopic route has failed, then do percutaneous drainage

If neither endoscopic nor percutaneous drainage is possible then emergency operation & decompression of the CBD with T tube.

Definitive operative therapy should be deferred until the cholangitis has been treated & the proper diagnosis for the obstruction is established.

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