BSGAR 2026 – Interesting Case

Progressive abdominal pain, deranged liver function, and rare biliary pathology

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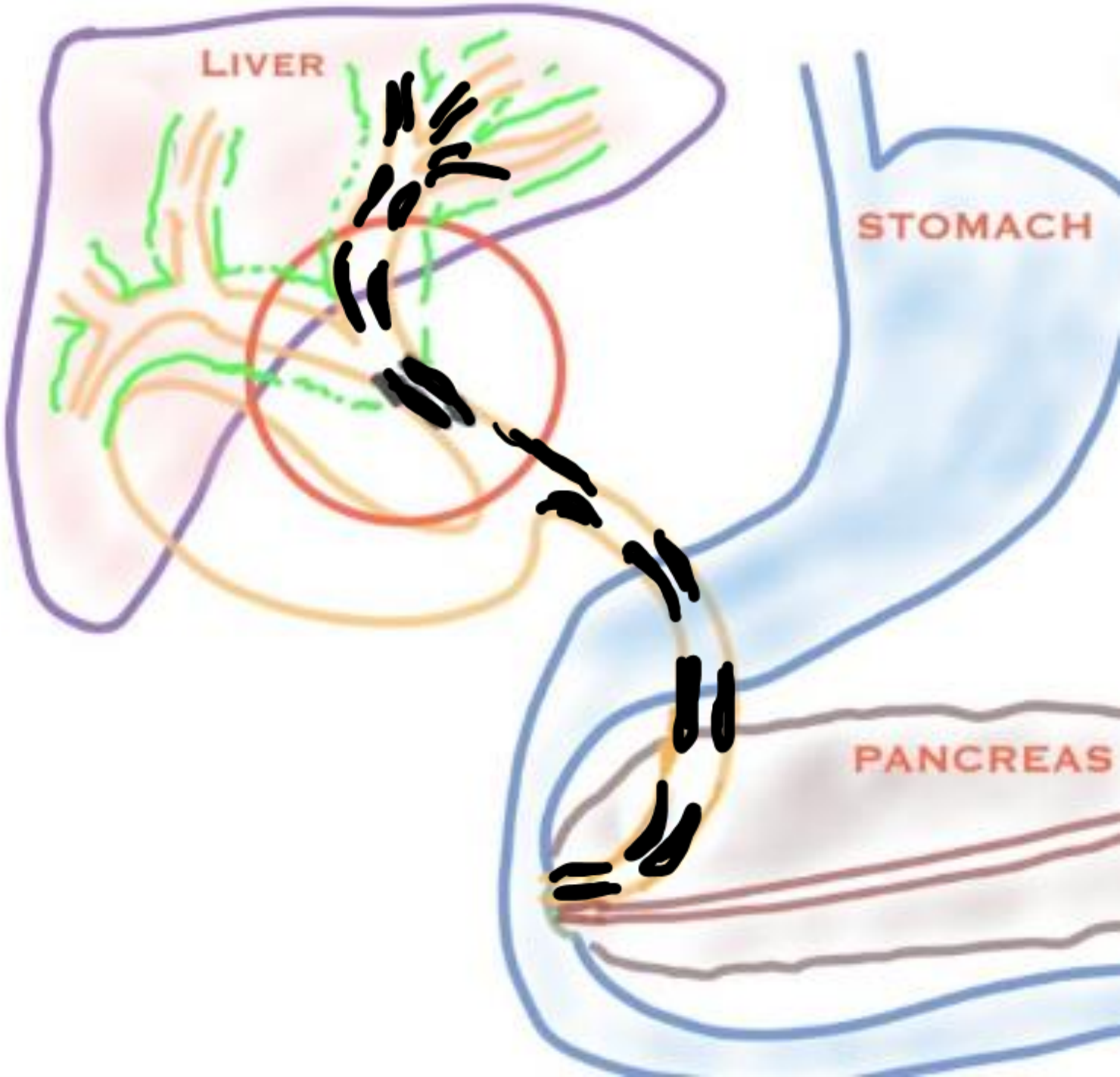


Case Synopsis and final diagnosis

Presentation: 67 M. First presentation with progressive abdominal pain and deranged liver function tests with bilirubin of 400.

USS and CT abdomen: ?benign-appearing hepatic cyst.

Post-drainage: Rapid recurrence Bilious aspirate → confirmed biloma communicating with segment III duct.

MRCP: Beaded intra and extra hepatic ducts suggestive of PSC. No h/o IBD although sometimes the PSC precedes IBD.

Ultrasound guided liver biopsy performed – suggested PSC type of inflammation only. Trial of steroid treatment and consideration for liver transplant.

Response to steroids was minimal (bilirubin improved to 300 and did not drop further) and therefore EUS was performed. Showed diffuse uniform wall thickening of left intrahepatic duct and CHD/CBD. Biopsies taken from the CHD/CBD and left intra hepatic ducts with separate needles.

Definitive diagnosis: Disseminated cholangiocarcinoma involving intra and extra-hepatic ducts causing segmental obstruction. Liver transplantation no longer a viable option.

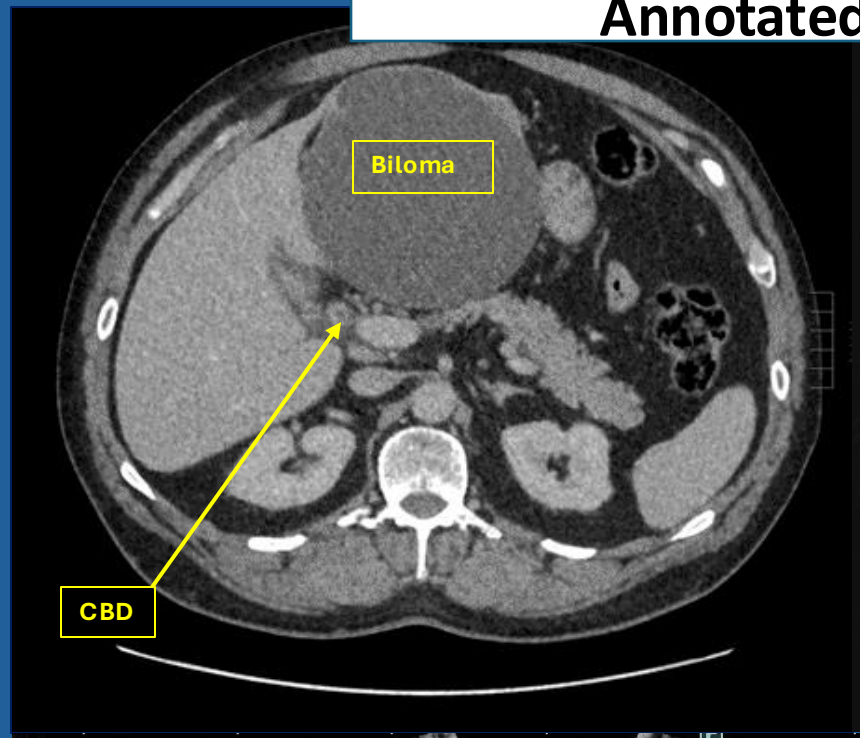
Final diagnosis: Disseminated intra and extra-hepatic cholangiocarcinoma. Unusual case of diffuse cholangiocarcinoma (mimicking PSC)

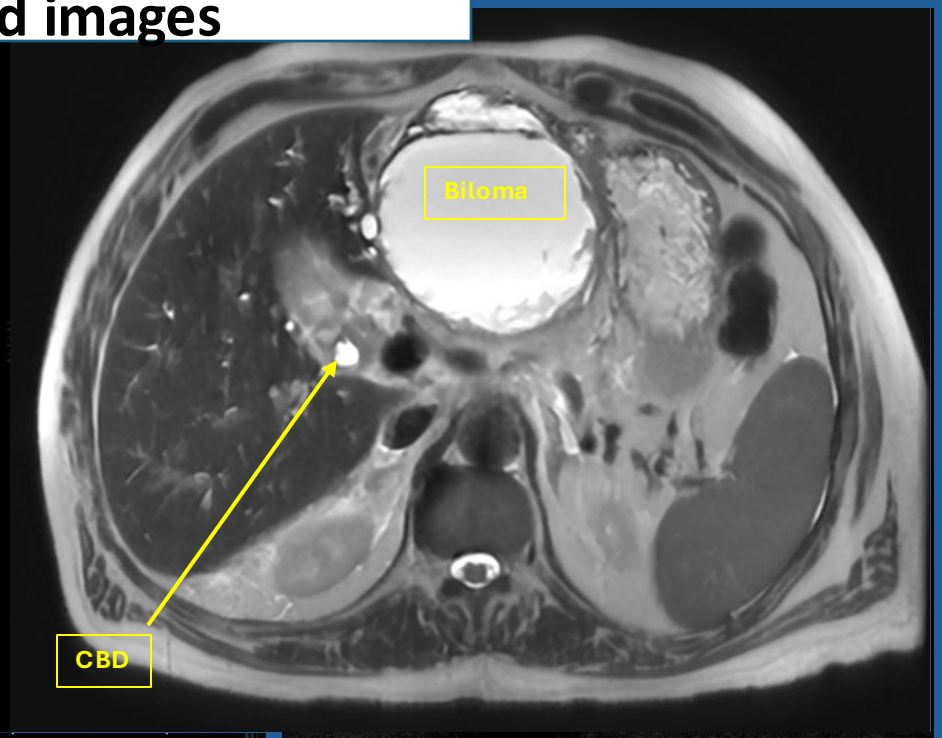
No biliary drainage option viable due to segmental nature, palliative discharge. Patient passed away at home a few weeks after discharge.

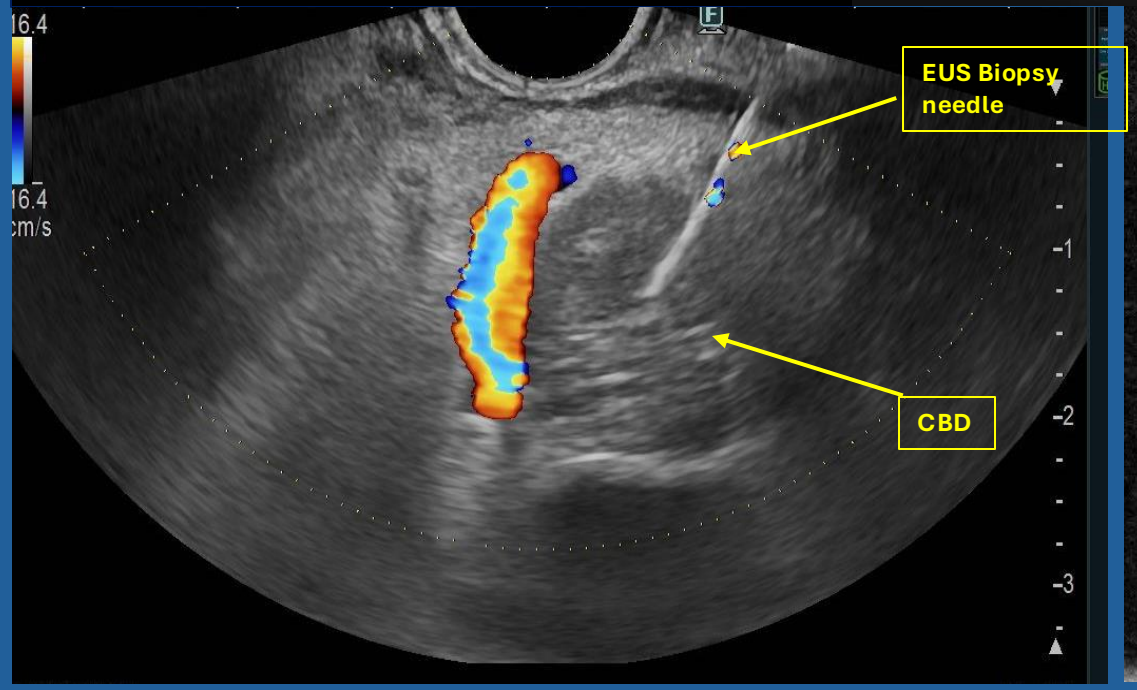
Learning Points:

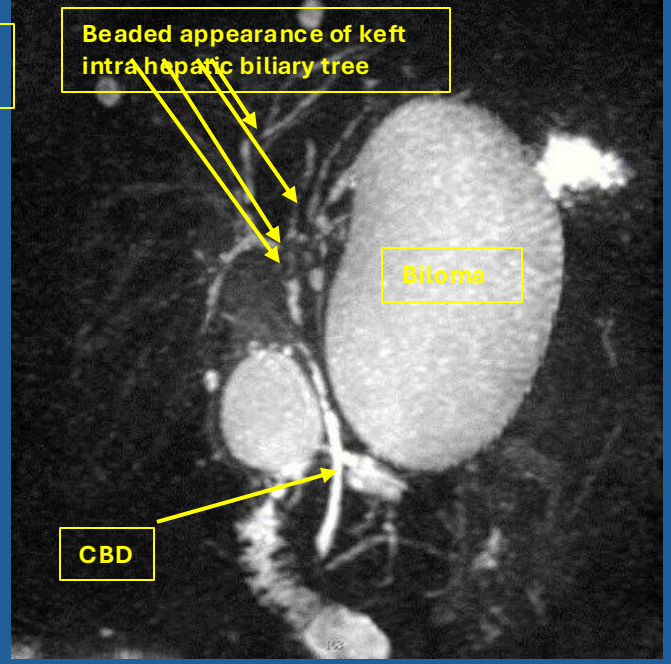
- Recurrent 'hepatic cyst' with bilious fluid → suspect biloma.
- PSC predisposes to cholangiocarcinoma although this patient did not have PSC and presented with diffuse cholangiocarcinoma.
- Multimodality imaging essential: USS + MRCP correlation.
- Early multidisciplinary involvement critical.

Annotated images









References:

•**British Society of Gastroenterology (BSG)** (2024/2023)
Provides contemporary, evidence-graded guidance on diagnostic pathways, imaging standards, and multidisciplinary management of cholangiocarcinoma.

•**Chamberlain, R.S. and Blumgart, L.H. (2000)**
Summarizes epidemiology, diagnosis, and surgical management, reflecting early modern perspectives from a high-volume hepatobiliary center.

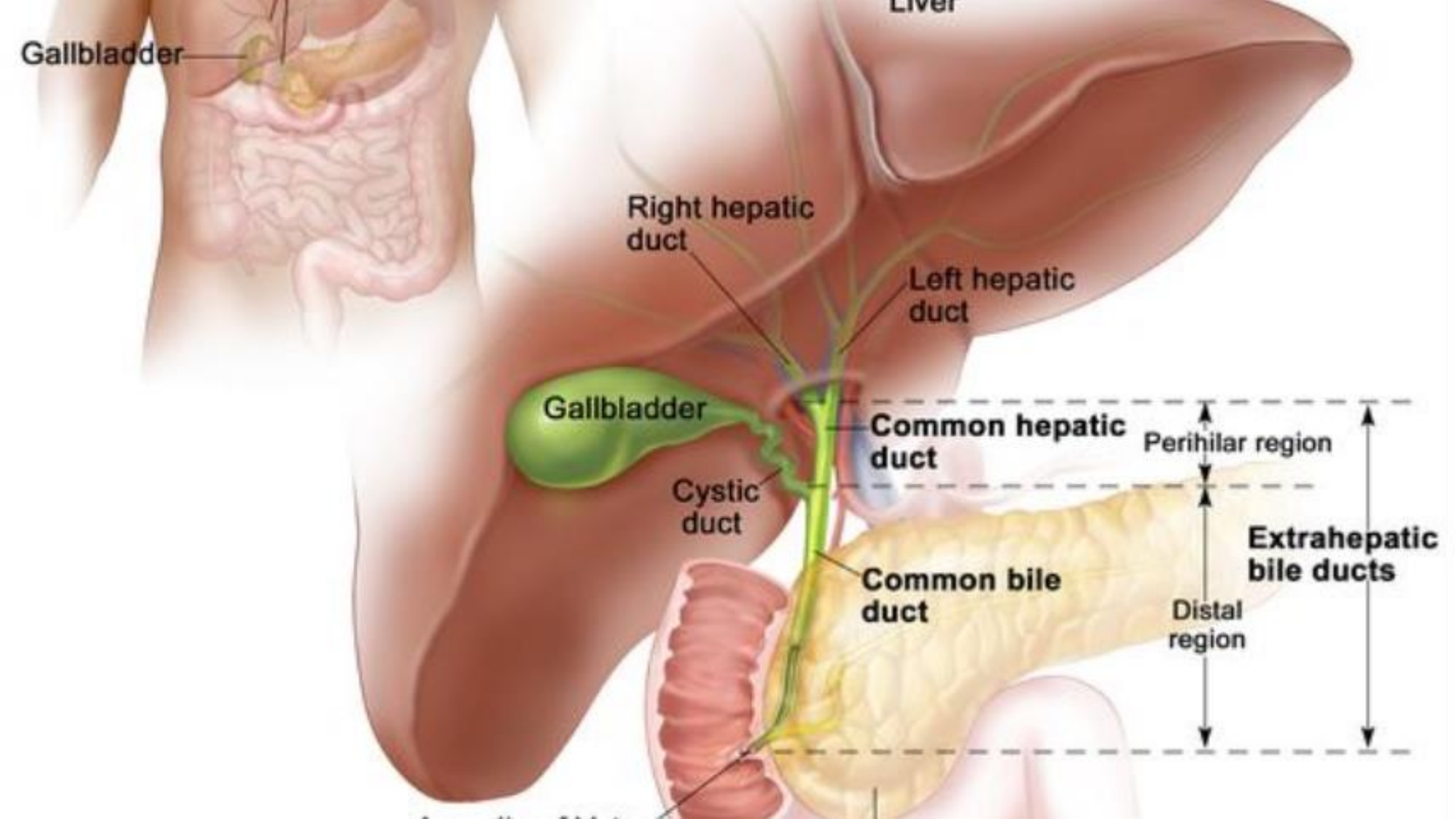
•**Klatskin, G. (1965)**
Original description of perihilar cholangiocarcinoma as a distinct clinicopathologic entity, defining its characteristic presentation and behavior.

•**Oldhafer, K.J., Rösch, C. et al. (2021)**
Reviews current diagnostic strategies and management challenges, highlighting advances and ongoing limitations in treating Klatskin tumors.

•**Soares, K.C., Kamel, I., Cosgrove, D. et al. (2014)**
Provides an integrated clinical overview of diagnosis, imaging, staging, and treatment options for hilar cholangiocarcinoma.

Klatskin tumor

- Cancer that forms in the area where the left and right hepatic ducts join just outside the liver and form the common hepatic duct.
- Klatskin tumor is a type of extrahepatic bile duct cancer. Also called perihilar bile duct cancer and perihilar cholangiocarcinoma.
- Typically, these tumors are small, poorly differentiated, exhibit aggressive biologic behavior, and tend to obstruct the intrahepatic bile ducts.


Liver
Gallbladder
Right hepatic duct
Left hepatic duct
Gallbladder
Common hepatic duct
Perihilar region
Cystic duct
Extrahepatic bile ducts
Common bile duct
Distal region

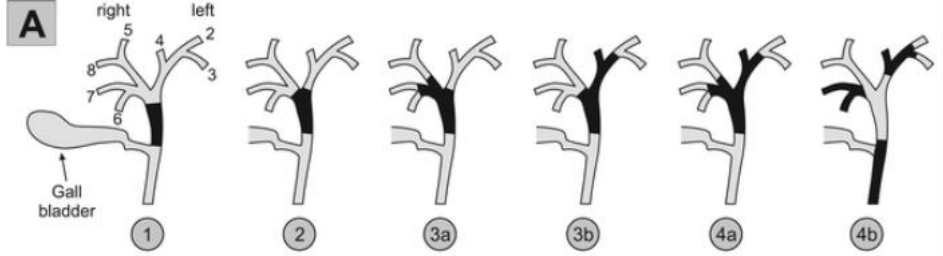
Epidemiology and Classification

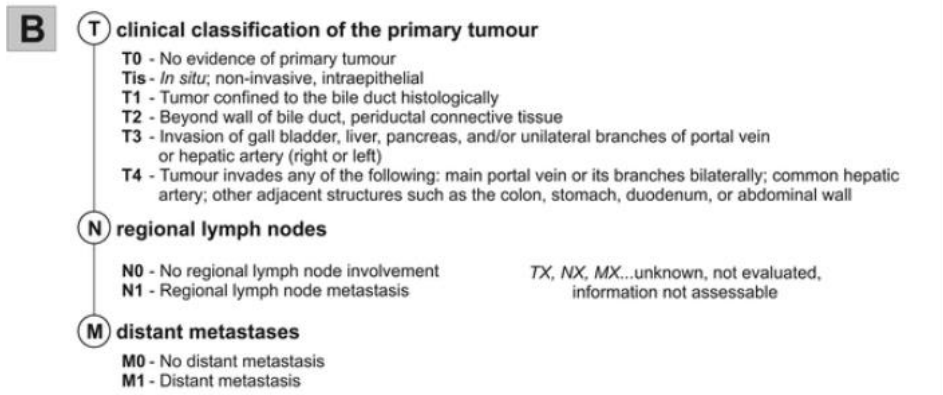
Epidemiology:

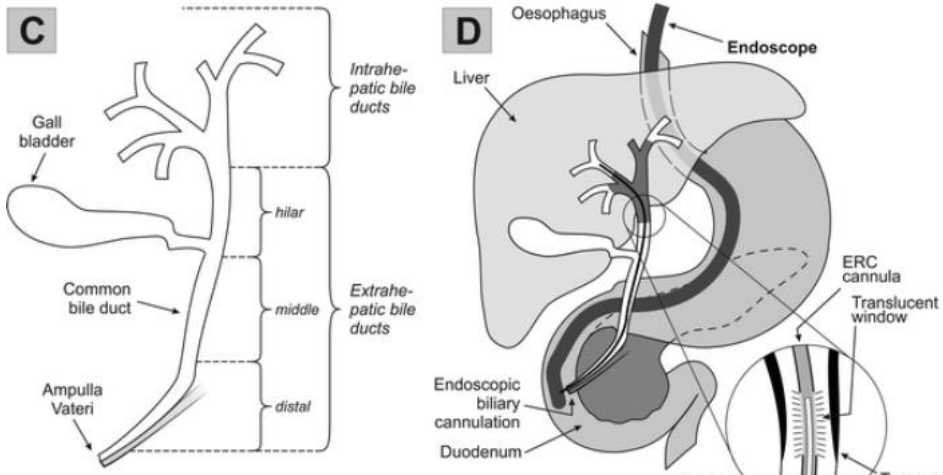
They are thought to account for up to 25% of all cholangiocarcinomas

Classification:

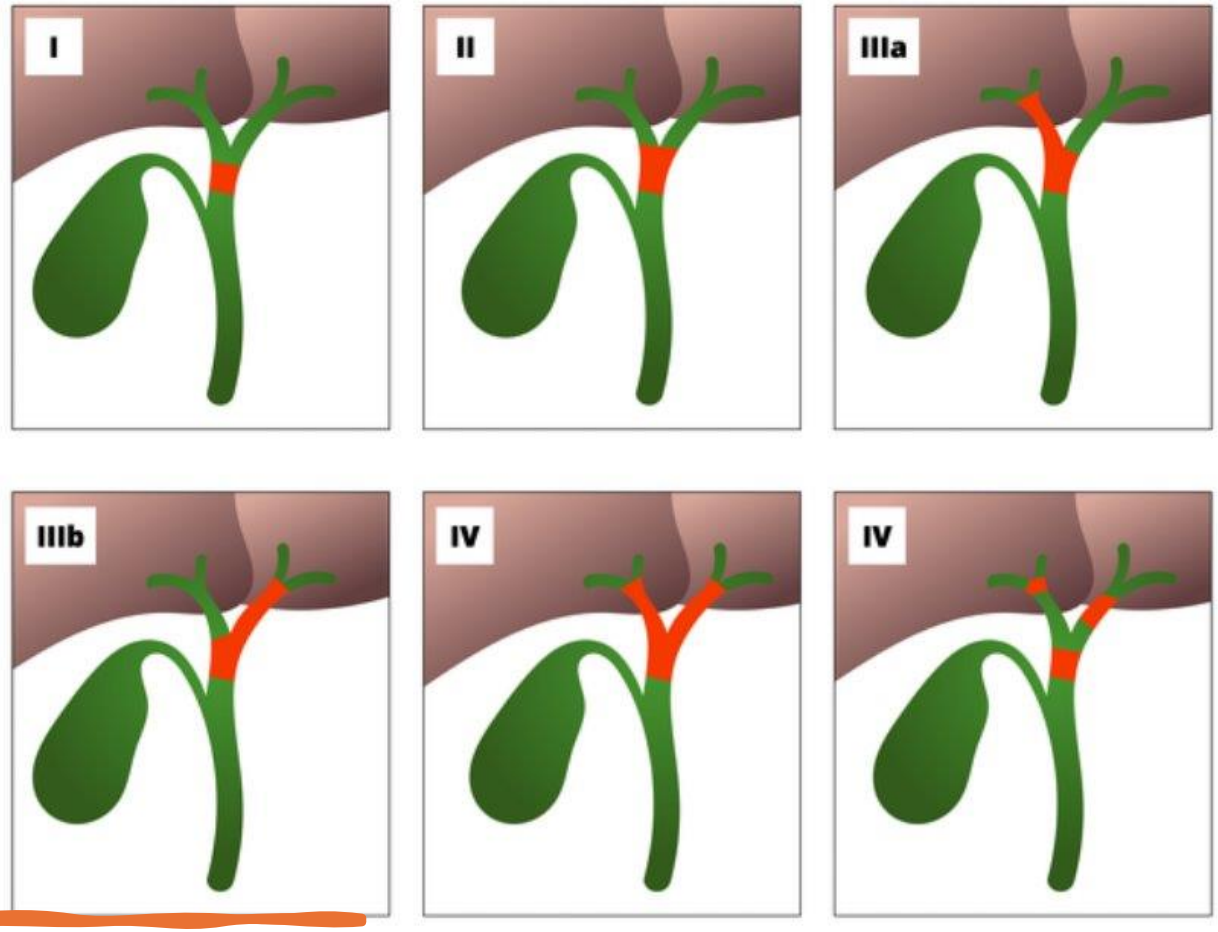
- Prognostic staging is defined by the TNM system: perihilar cholangiocarcinoma (staging).
- The Bismuth-Corlette system is an anatomic classification well known by surgeons used for preoperative assessment.







Bismuth-Corlette classification



Classification and TNM Staging

Imaging Ultrasound

The presence of a hilar mass with obstruction would raise concern on ultrasound. The reported echotexture according to one study

- increased echogenicity relative to surrounding liver ~80%
- reduced echogenicity ~20%
- mixed echogenicity ~2%
- Ultrasound may also show an intraluminal mass extending into the bile duct and in a small proportion of cases (4%), there may also be evidence of bile duct wall thickening.

Cross sectional imaging

- CT demonstrates the intrahepatic biliary radical dilatation. The tumor mass itself is ill-defined and usually invisible, but hilar necrotic lymph nodes or hepatic metastatic deposits can be identified.

- MRCP with its 3D capability is superior to CT to delineate the degree and location of the biliary tree stricture. It is the gold standard method for diagnosis of hilar cholangiocarcinoma. Shouldering and abrupt tapering at the stricture site suggests the diagnosis. Identifying the exact location and involvement can help in preoperative classification.

Differential diagnosis

Imaging differential considerations include:

1. autoimmune cholangitis
2. benign fibrosing disease at the hepatic confluence
3. biliary inflammatory pseudotumor: can be indistinguishable on imaging
4. hepatocellular carcinoma
5. gallbladder carcinoma (invading the bile duct)
6. hepatic tuberculosis

References

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