

Managing Malignant Biliary Obstruction

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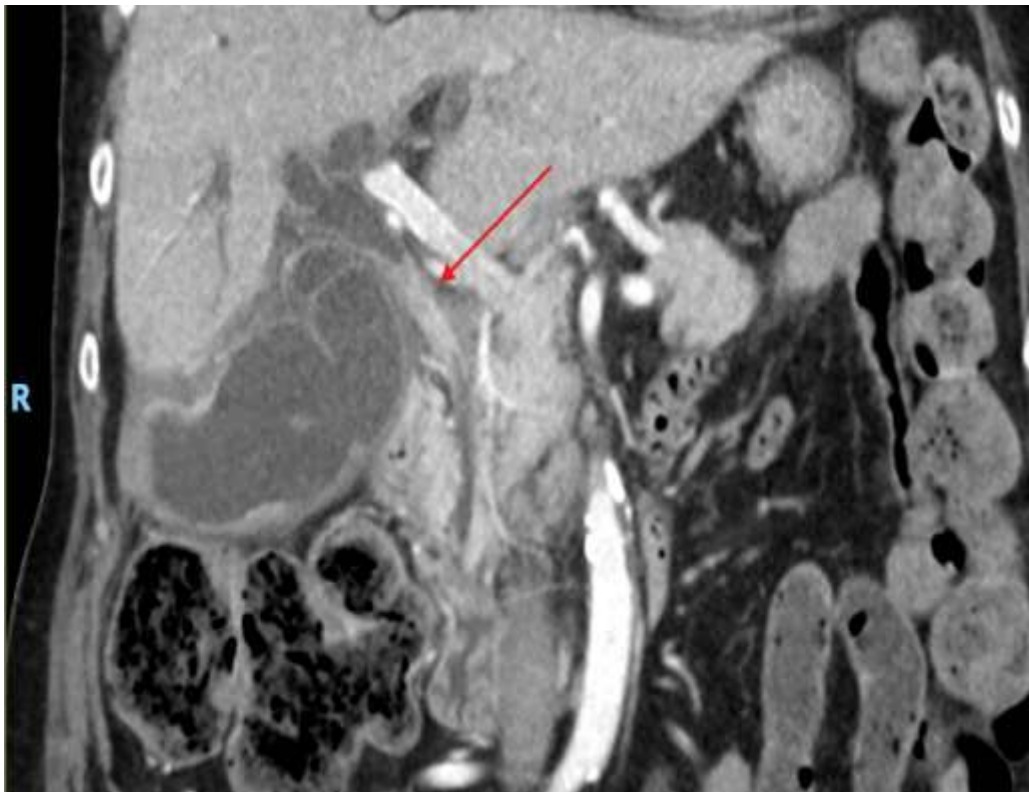
JOHNS HOPKINS
MEDICINE

Malignant Biliary Obstruction

- 82 y.o female with PMH of A fib who presented to the ER with jaundice, weight loss and dull epigastric discomfort
 - T Billi 9.3, Alk phos 822, AST 233, ALT 222

PMH, past medical history; Afib, atrial fibrillation; ER, emergency room; T Billi, total bilirubin; Alk Phos, Alkaline phosphatase, AST, aspartate aminotransferase; ALT, alanine aminotransferase .

Malignant Biliary Obstruction

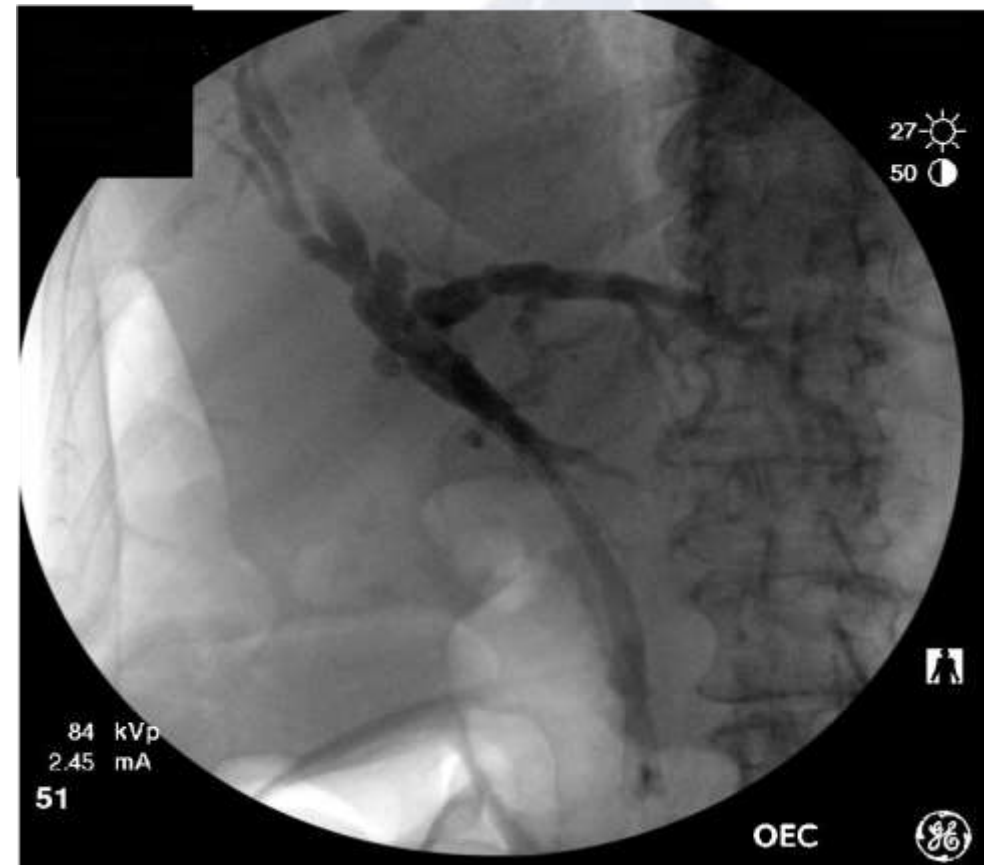
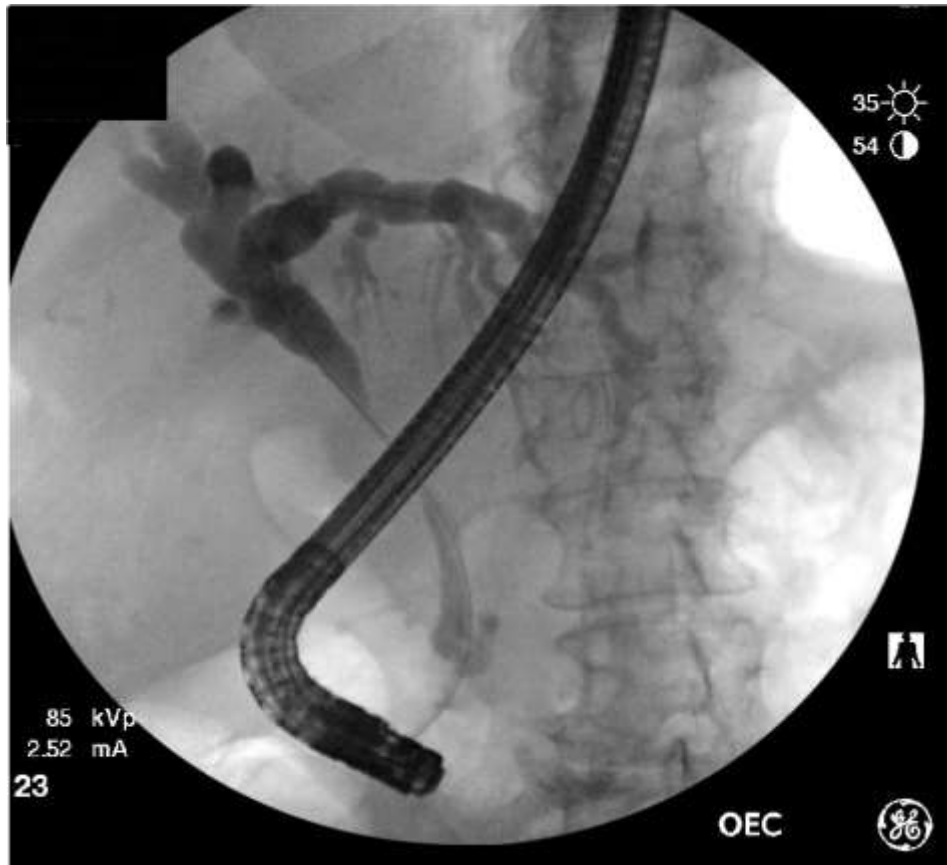


CT SCAN Abdomen/Pelvis W/IV contrast



MRI/MRCP

Malignant Biliary Obstruction

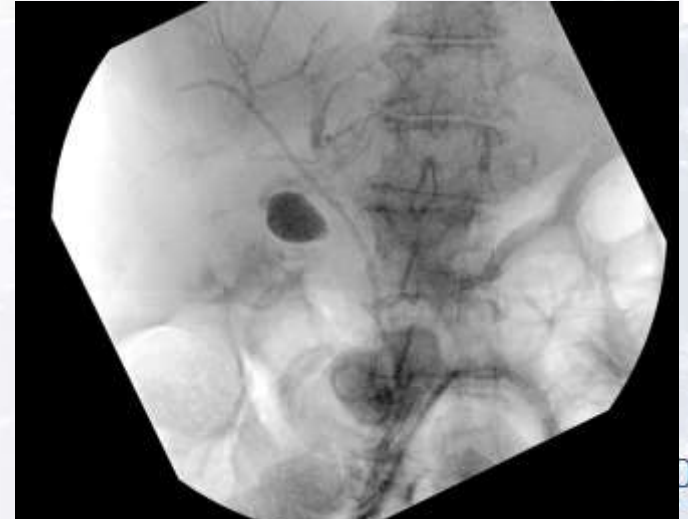


ERCP
(Endoscopic Retrograde Cholangiopancreatography)

Malignant Biliary Obstruction

- Brush Cytology
 - Common bile duct brushing: Rare cluster of atypical cells, negative for definitive malignant cells
- CA 19-9: 1133.5 U/mL
- CEA: 32.4 ng/mL

Malignant Biliary Obstruction



Malignant Biliary Obstruction

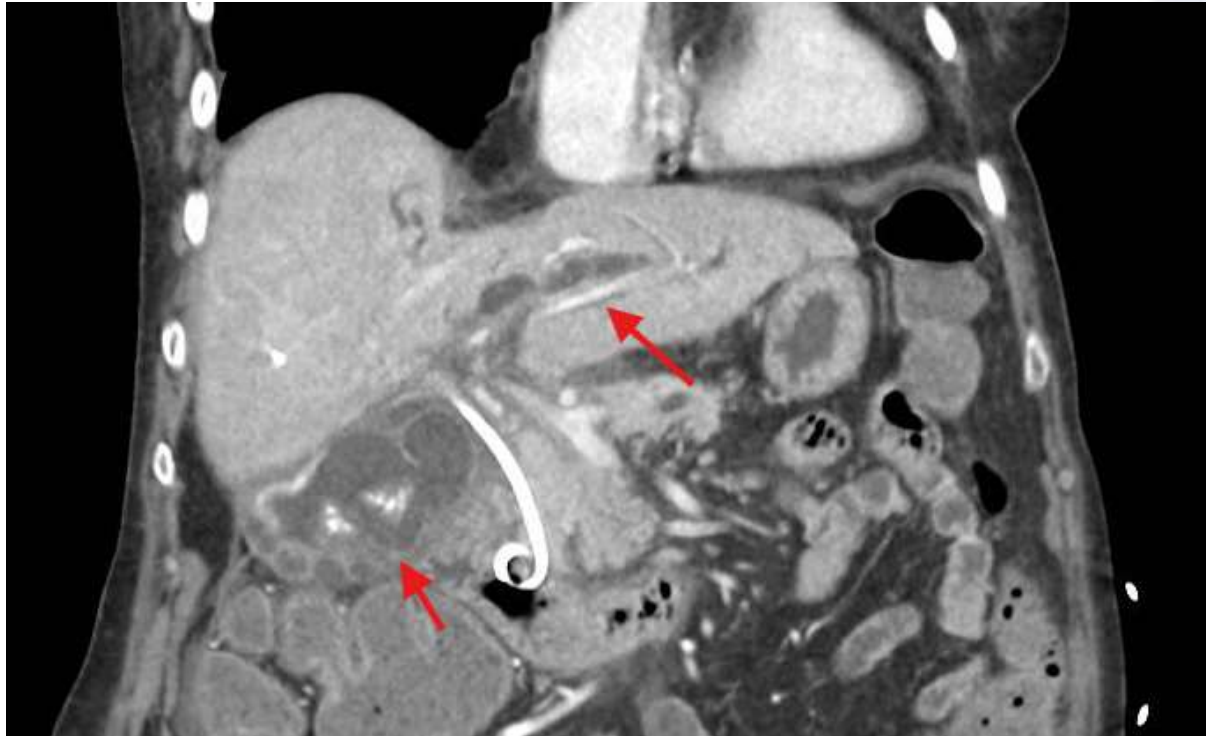
- Brush Cytology
 - Common bile duct brushing: Positive for malignant cells.
Adenocarcinoma
- Common Bile Duct, Stricture (Biopsy):
 - Adenocarcinoma

Malignant Biliary Obstruction

- One month later she presented to the ER with worsening fatigue, nausea and jaundice
 - T Billi 19.2, Alk phos 2239, AST 330, ALT 156

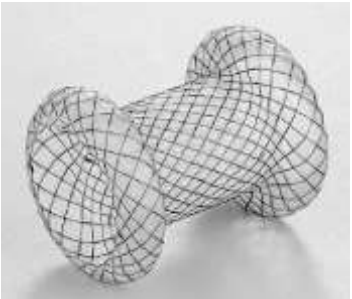
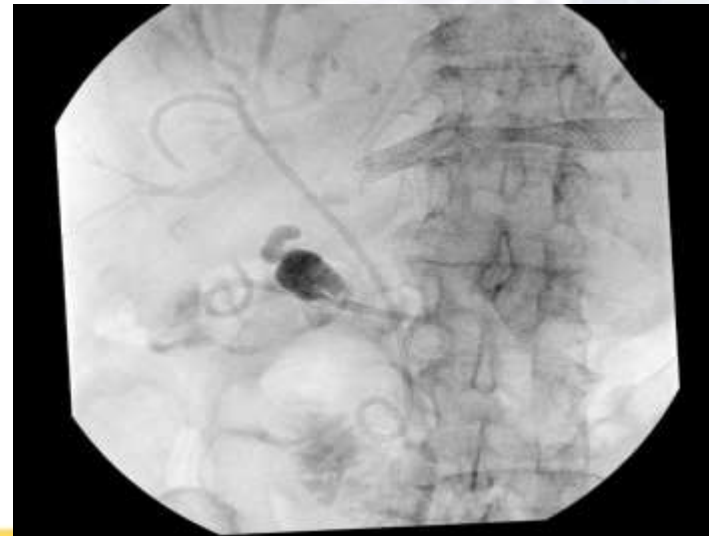
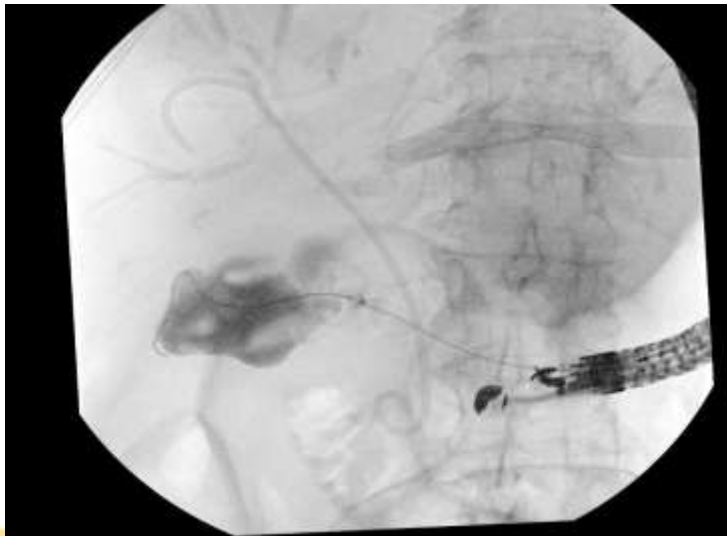
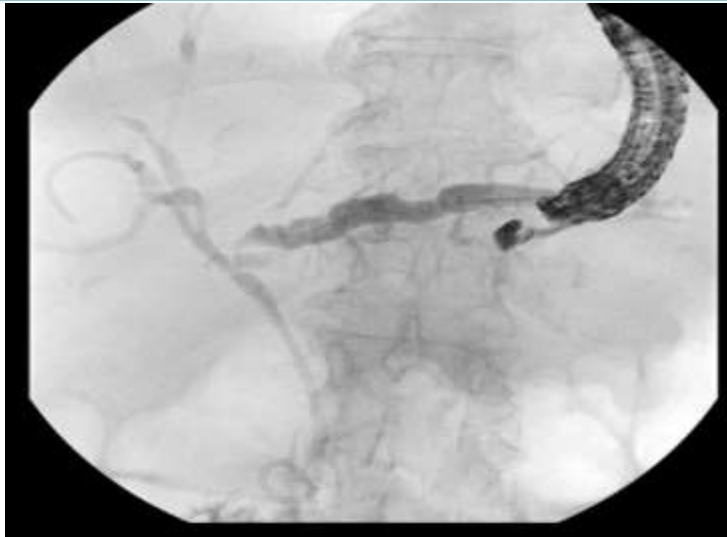
ER, emergency room; T Billi, total bilirubin; Alk Phos, Alkaline phosphatase, AST, aspartate aminotransferase; ALT, alanine aminotransferase

Malignant Biliary Obstruction



CT SCAN Abdomen/Pelvis W/IV contrast

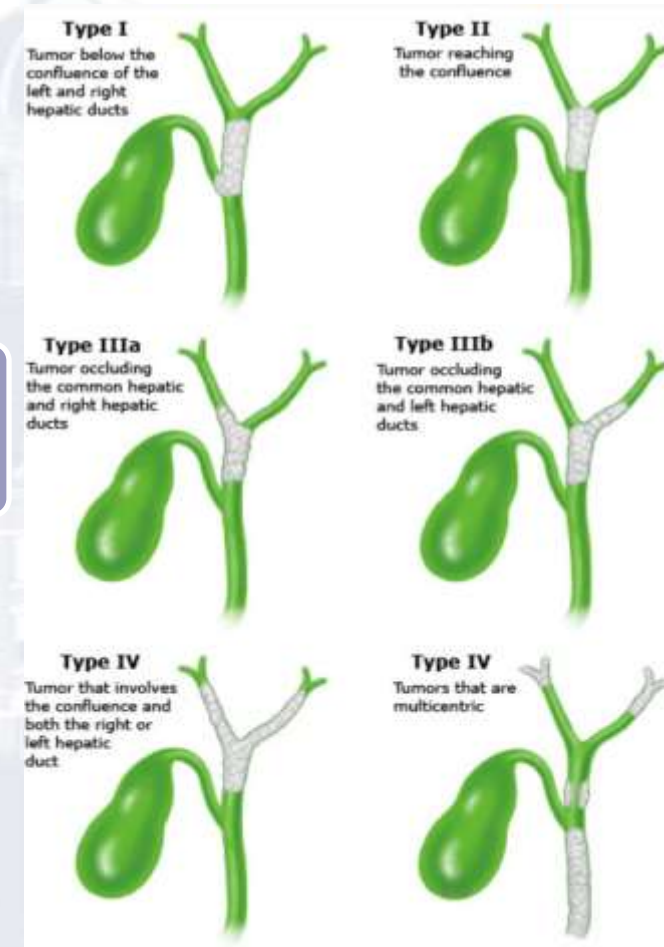
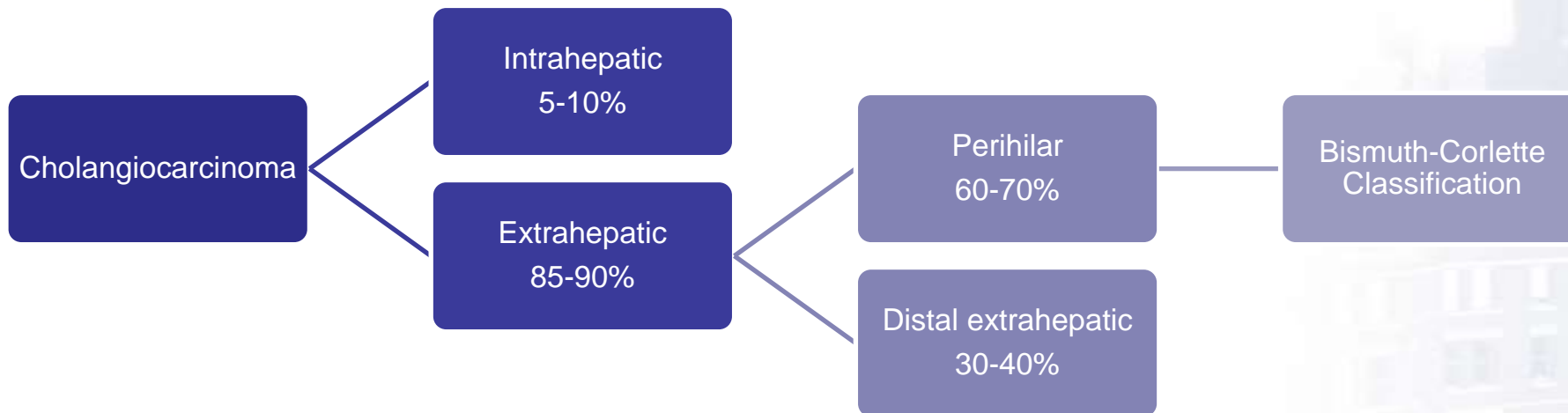
Malignant Biliary Obstruction



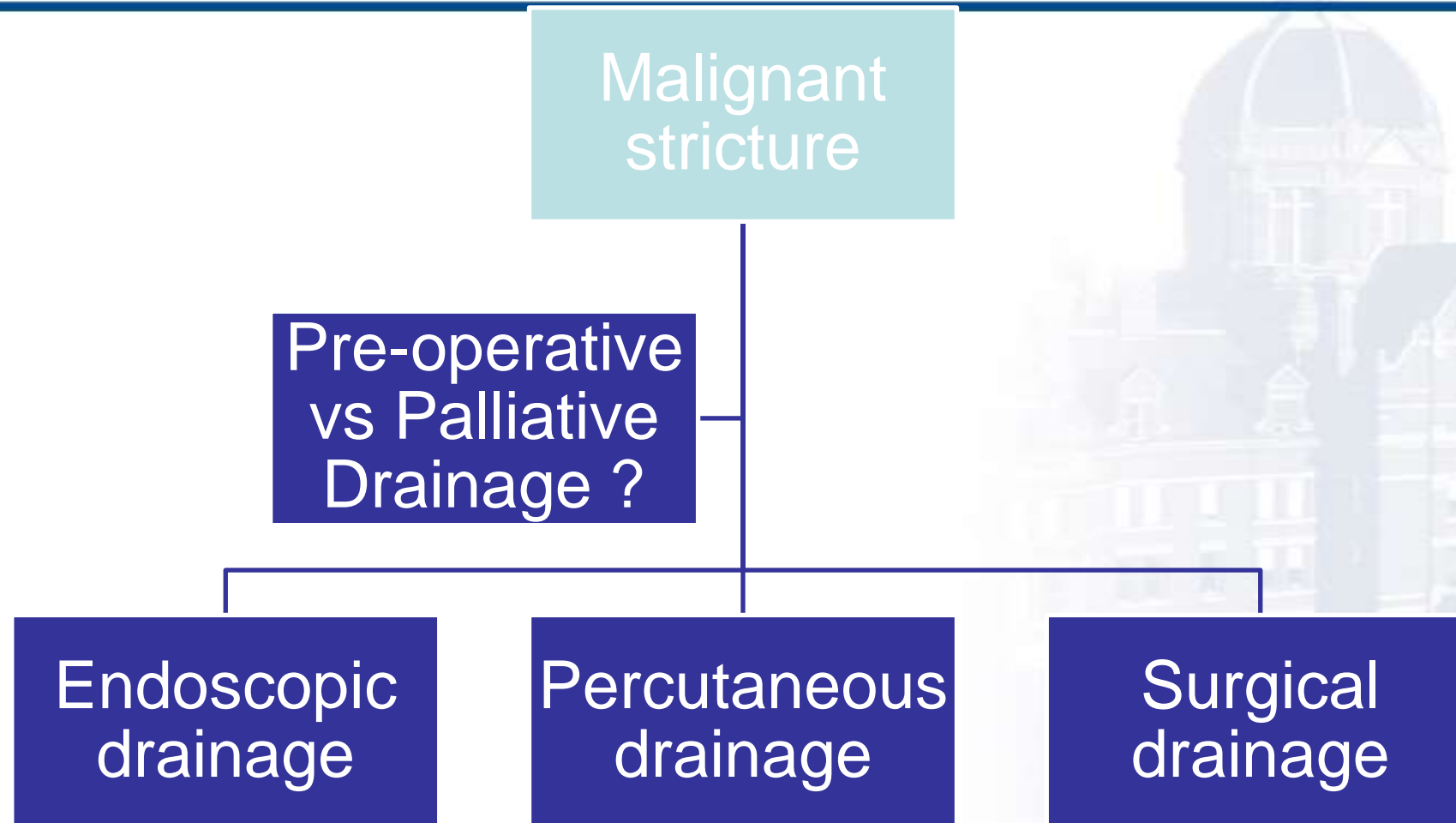
Aims

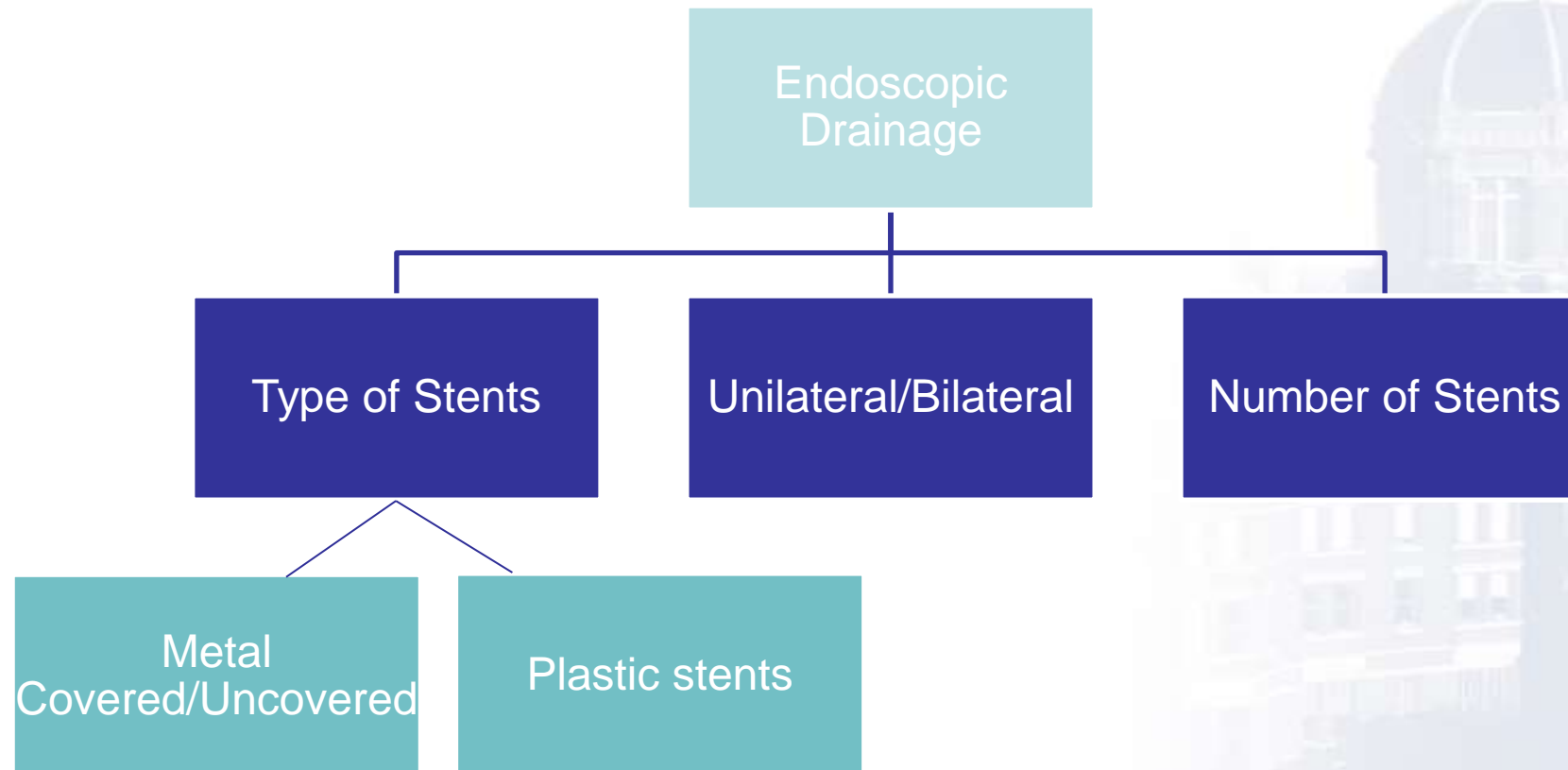
- To understand the anatomical classification of malignant bile duct strictures
- To learn the approach to treat malignant bile duct strictures
- To know available techniques to prevent bile duct stent occlusion

Anatomical Classification of Malignant Bile duct strictures



Management of Malignant Strictures

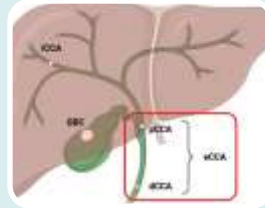




Endoscopic biliary stenting: indications, choice of stents, and results: European Society of Gastrointestinal Endoscopy (ESGE) Clinical Guideline – Updated October 2017



Malignant Extrahepatic Bile Duct Stricture



When to drain?

- Preoperative biliary drainage only if cholangitis, severe jaundice, delayed surgery or before neoadjuvant therapy



How to drain?

- Preferably by ERCP rather than surgery or PTBD
- The use of a 10 mm SEMS
- Avoid uncovered SEMS if no etiology



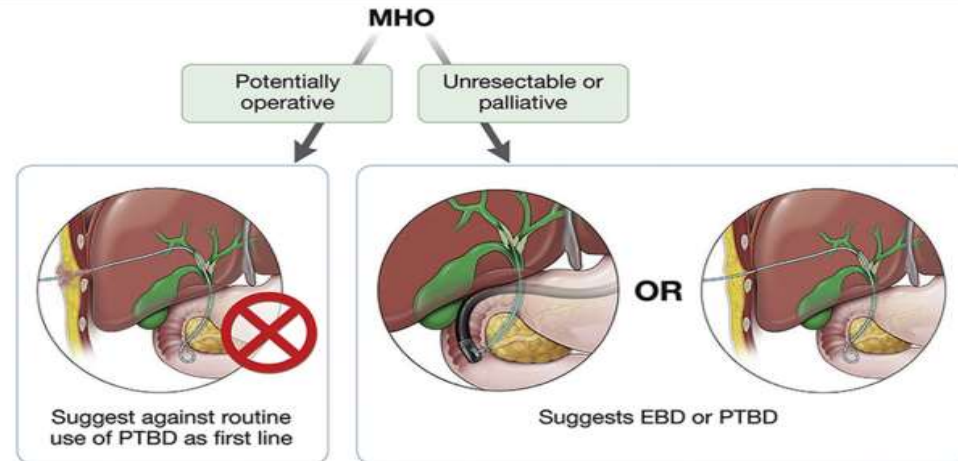
EUS-guided biliary drainage

- Only if failed ERCP

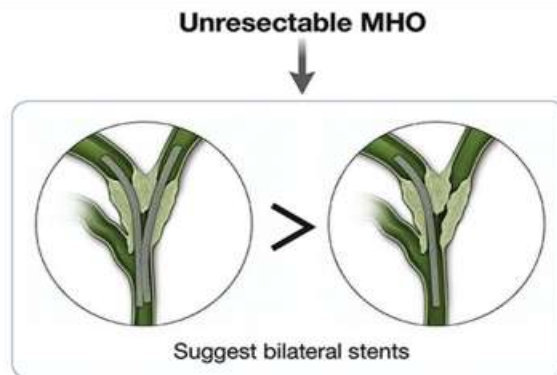
ASGE guideline on the role of endoscopy in the management of malignant hilar obstruction



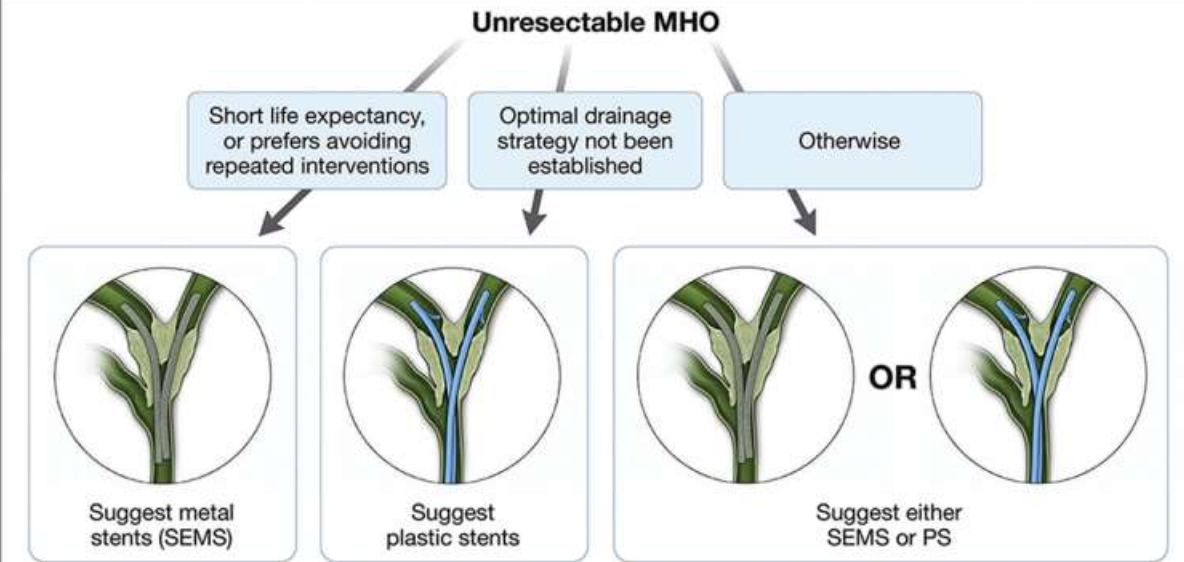
Drainage Modality



Drainage Strategy



Stent Type



MHO, malignant hilar obstruction; SEMS, self-expandable metal stent; PS, plastic stent; PTBD, percutaneous trans-hepatic biliary drainage; EBD, endoscopic biliary drainage

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Malignant Biliary Obstruction

- Preventing stent occlusion
 - Photodynamic therapy: not available in most institutions
 - Radiofrequency ablation
 - Intraluminal brachytherapy
 - Prophylactic antibiotics

Lu Y, Liu L, Wu JC, et al. Clin Res Hepatol Gastroenterol. 2015;39(6):718.

Yang J, Wang J, Zhou H, et al. Endoscopy. 2018;50(8):751.

Taggar AS, Mann P, Folkert MR, et al. Radiother Oncol. 2021;165:60.

Chan G, Barkun J, Barkun AN, et al. J Gastrointest Surg. 2005;9(4):481.

Conclusions

- Pre-operative biliary drainage performed only in case of jaundice +/- cholangitis, delay in Sx, neoadjuvant Tx
 - ERCP preferred approach in most instances → SEMS
 - In hilar strictures → multidisciplinary discussion
- Palliative drainage → ERCP in most instances
- EUS biliary drainage → only in failed ERCP
- Preventing stent occlusion → different strategies, not enough data

Thank you!



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