Managing Malignant Obstructive Jaundice

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Aetiology

- Pancreatico biliary tumours
  1. Primary pancreatic adenocarcinoma
  2. Cholangiocarcinoma
  3. Gall Bladder tumours
  4. Liver tumours – Primary
  5. Duodenal tumours
  6. Ampullary tumours

- Other causes
  1. Portal lymphadenopathy e.g. Lymphoma, metastasis
  2. Metastatic tumours

Tend to present late with symptoms !!!

Diagnosis

- Tumour markers – CA19.9, CEA, CA 125 – Non specific ¹
- Radiology e.g. CT and MRI ² ³
- Gives detailed information on staging, presence of metastasis
- MRI can delineate anatomy better than ERCP and is a very useful staging imaging modality
- Avoid decompression before cross sectional imaging as the information can be distorted which will delay treatment
- Crucial to establish if obstruction is proximal or distal

³ Tse & al. HPB (Oxford) 2006;8:409–425

Computed Tomography scan
Magnetic Resonance Imaging

Endoscopic Ultrasound
- EUS is highly sensitive (87%) and specific (88%) in determining the cause of extra hepatic obstruction
- Can perform EUS FNA and/or coeliac plexus block for symptom relief at the same time
- Useful in confirming staging and identifying small/ampullary tumours which can be missed on CT

Turner BG et al. Gastroint Endosc. 2010;71:91S8

Treatment

Primary Aim
De compression of the bile duct or is it!!!
- Endoscopic
- Percutaneous
- Surgical

Endoscopic Treatment

Plastic stents

Turner BG et al. Gastroint Endosc. 2010;71:91S8
Metal stents – Uncovered/Partially covered/Covered

Plastic or Metal

- Plastic stents – Inexpensive, easily removable
  High occlusion rate at 3-6 months
- Metal stents – Significantly longer patency
  40 times the cost of metal stents
- Recommendations – Plastic stents if survival is < 6 months
  Consider metal stents if longer

Uncovered or partially or fully covered

- Uncovered - Tumour in growth; Not removable
  Low risk of migration
- Partially covered – Less tumour in growth; Potentially removable
  Risk of migration
- Fully covered stent – Less tumour in growth; Easily removable
  High risk of migration
- Definitive survival data favouring one stent over another, or even covered stents over uncovered stents, are currently lacking.\(^{10,11}\)

Drawbacks

- Plastic stents preoperatively
- Higher than expected rate of post ERCP complications
- No patient had neoadjuvant therapy
- Role of metal stents not yet studied
- May not reflect real time practice \(^{13}\)

**References**


Arno Dormann et al. Gastrointestinal Endoscopy 2010; 72: 720


Afaq!!Saleem!!et!!al.!!Gastrointestinal!!Endoscopy!!2011;74:321–327

Blocked stents

- Blocked plastic stents – replace with metal if inoperable or if they are being considered for chemotherapy
- Blocked metal stent – Remove +/- reinsert another stent 14

Percutaneous Treatment

- **PTC = Percutaneous Transhepatic Cholangiogram**
- Failed endoscopy therapy/unfit for surgery
- Extremely useful rescue procedure especially in incomplete drainage
- Can be used as part of a rendezvous procedure
- Higher morbidity as compared to endoscopy 15,16
- Probably safer than endoscopy for proximal lesions

Surgical Management

- Biliary surgical bypass - Biopsies can be performed
- However = High morbidity and mortality 17,18
  - Open surgical bypass = 48 % and 16 %
  - Laparoscopic surgical bypass – 16 % and 5 %
- Preferred for patients fit for surgery, found to be inoperable at laparotomy and have a reasonable prognosis.

Future Modalities in management

- EUS guided biliary decompression
- EUS guided choledocoduodenoscopy
- ERCP + RFA for treatment of MBO
- Paclitaxel coated biliary stents
- Hilar tumours – PTC + PV embolisation in one sitting
- EUS guided treatment of tumours

Conclusion 1

- Malignant Obstructive Jaundice remains a commonly encountered clinical entity
- Multiple diagnostic and therapeutic modalities exist, and almost all patients can have their obstruction relieved through one or more treatment options
- Accurate staging is essential before planning any further treatment
- Preoperative drainage in an operable patient should be avoided if the bilirubin is not elevated
- Individual drainage procedures should be selected based on the location and type of biliary obstruction, local expertise, and patient preference
Conclusion 2

- Endoscopic drainage can be considered as the first line for relieving distal obstruction.
- Percutaneous drainage can be used in patients with failed endoscopic therapy or in very proximal lesions.
- Surgical drainage is usually reserved for relatively fit patients who have failed endoscopic therapy.
- Endoscopic, radiologic, and surgical approaches should not be seen as competitive entities, but rather as complimentary techniques.

Thank you