

## BILIARY TRACT CANCERS

1. Intrahepatic cholangioCa (iCCA): biliary tree within liver
2. Extrahepatic cholangioCa (eCCA): biliary tree outside liver= perihilar/Klatskin (pCCA) + distal cholangiocarcinoma (dCCA)
3. Gallbladder cancer (GBC)

GBC 60%; 40% CholangioCa

### GB POLYPS

(a)**Single**: pre-malignant; risk =size (1cm)/sessile/age>50/indian/PSC

(b)**Multiple**: atherosclerosis (no further significance)

No polyp-carcinoma sequence

Features: asymptomatic/symptoms if impact in Hartmann's pouch

Management (i)Surveillance: (a) 6-9mm= US 6mthly for 1 yr then 5yrly (b)<5mm w/ risk factors @ 1, 3, 5yrs

(ii)Surgery: symptoms/size (10mm)

### GB CARCINOMA

Epidemiology: 90% female/Andes and Indians

Aetiology: (i)stones<sup>90%</sup> (ii)porcelain GB (iii)polyposis (iv) adenomyomatosis (v)PSC (vi)cong malfs (vii)obesity (viii)chronic

Micro: 90% adenoca | | 10% SqCC

infection

Site: 60% fundus | | 40% neck

Spread: local= liver/porta hepatis/HPV/duodenum/colon | | nodes= porta hepatis | | mets= liver

Features: (i)biliary obstruction (ii)constitutional of cancer

Investigations: US/CT/MRI *\*histological diagnosis unnecessary if conclusive imaging\**

Management: 30% resectable

Scenarios (i)Pre-op suspicion → MDT → ?resection | | ?cholecystectomy + CD frozen section +/- proceed

(ii)Intra-op finding → frozen section for T stage and resect → TNM staging and MDT → may have to re-operate

(iii)Post-op histo diagnosis: CTTAP for TNM staging → MDT → ?resection<sub>±</sub> port sites (no bag, perf)

#### **1. Local disease:**

(a)Segment IVb/V resection(b)ligament lymphadenectomy (after cholecystectomy with CD frozen section positive)

(i)Incidental= High grade/T1b+/LN+/EMVI/CD margin need reoperation | | port site resection if perf'd/not removed in bag

(ii)Symptomatic tumour: Fundus→liver + TV colon resection | | Neck→bile duct+duodenal bulb+panc head+hepatectomy

Contraindications: distant nodal mets/distant mets/biliary involvement/vascular involvement/T4

#### **2. Unresectable disease (palliation)**

5 mths median survival → non-surgical (ERCP/PTC) ?Sg3 bypass only if discovered intra-op

#### **Outcomes:**

Median survival 12 mths; 5% 5yr survival if treated

## CHOLANGIOCARCINOMA

### Epidemiology:

Men/50+/PSC/areas of endemic liver fluke infection

Screening: only at risk populations eg PSC

### Pathology:

Aetiology: associated with UC (esp if PSC); choledochal cyst; flukes; BDI, chronic BD stone

Micro: **90% adenoca** 10% SqC

Macro: mass-forming arterially-enhancing tumour on scan

Site: (i)Intrahepatic (ii)Perihilar/Klatskin (iii)Distal

### Clinical features:

Symptoms: (i)Obstructive: **painless progressive jaundice** (ii)Constitutionals

Signs: (i)Obstructive jaundice<sub>(intermittent if distal)</sub> (ii)GB palpable<sub>(impalpable if prox)</sub> (iii)Portal HTN if PV involved

### Investigations:

1. MRCP before biliary intervention; ERCP and biopsies/cytology; LFTs<sub>(higher in malign than stones)</sub>; CT: PV/bili obstn

\*biopsy for histological confirmation not mandatory pre-curative surgery: can have false -ives\*

\*no role for FDG-PET: false +ive if inflammatory conditions\*

2. Staging (TNM): (i)MRCP<sub>(T-stage/bile duct involvement)</sub> (ii)EUS<sub>(small tumours/nodal stage)</sub> (iii)CT<sub>(vascular involvement)</sub> (iv)CT thorax<sub>(staging)</sub>

\*ERCP/PTC with biopsies/brush cytology if inconclusive imaging\*

Resectability: Bismuth-Corlette type I (below confluence) II (confluence) IIIa/b (CHD+R/L) IV (confluence +R+L+segmentals)

Based on (i)biliary tree extent (ii)vascular invasion (ii)hepatic lobar atrophy<sub>(implies PV involvement)</sub> (iv) metastatic disease

Differential (i)Benign stricture (ii)Other cancer (GBC/lymphoma)

### PRE-OP BILIARY DECOMPRESSION

PTC preferred to ERCP (evaluation of intrahepatic biliary tree)

Imaging of pCCA before biliary decompression if jaundiced

### LOCAL DISEASE (CURATIVE RESECTION)

*Objective= R0 curative resection with negative margins + biliary-enteric continuity*

1. ICCA: radical resection + hepatoduodenal lymphadenectomy

2. Perihilar/Klatskin: partial hepatectomy + segment I<sub>(drains into ductal bifurcation)</sub> + porta hepatis lymphadenectomy

3. Distal: Pancreatic head (PDP) + extended bile duct resection to hilum + lymphadenectomy

### ADJUVANT TREATMENT

Considered due to high local/distant recurrence: **DXT with concurrent 5-FU/capecitabine**

### ADVANCED DISEASE /METASTATIC DISEASE (PALLIATIVE CARE)

*Histological/cytological confirmation essential (EUS; CT-biopsy if already metastatic)*

CHEMO:PS1= **combo cisplatin/gemcitabine** PS2= **gemcitabine monotherapy**

SECOND-LINE: consider **fluoropyrimidine**-based therapy

DXT/CRT have unclear role so CHEMO is treatment of choice

### BEST SUPPORTIVE CARE

**Biliary drainage** is main objective: ERCP distal /PTC prox + stent<sub>(don't do through atrophic lobe)</sub>

Use if (i)unresectable (ii)unfit (comorbs/CLD/portal HTN)

Indications: (i)intractable pruritis (ii) recurrent cholangitis (iii)access for luminal DXT (iv) hepatic recovery for chemo