GALL BLADDER CANCER

BASIC WORK UP

Ultrasonography
Blood Investigations: Liver function tests, Tumour markers – CA 19-9
CECT Scan of Chest Abdomen and pelvis
US / CT guided biopsy – if upfront surgery not contemplated/ metastatic disease
Optional: MRI with MRCP in patients presenting with OJ

Whole body PET CECT Scan.

1
PER -PRIMUM GALL BLADDER CANCER (GBC)

2
INCIDENTAL GALL BLADDER CANCER (iGBC)

3
LOCALLY ADVANCED GALL BLADDER CANCER (LAGBC)

4
METASTATIC GALL BLADDER CANCER
1. PER PRIMUM GBC

**ACCIDENTAL DIAGNOSIS OF GBC**
Surprise finding on table while performing Open / laparoscopic Cholecystectomy

**CLINICORADIOLOGICALLY SUSPICIOUS GBC**
- Thick walled GB with irregular walls
- Enhancing polyp >1cm
- Xanthogranulomatous cholecystitis
- Suspicious liver infiltration

Proceed with Radical surgery only if expertise and facilities available at the centre.
If not, *Close and refer patient to centre with expertise.*
If possible, do a biopsy for confirmation of diagnosis without perforating gallbladder.
Do not do simple cholecystectomy /

**GBC**
- unequivocal features on CT / MRI Scan
- Biopsy/ FNA proven

Laparoscopic (MIS) / Open simple cholecystectomy (At a centre with expertise in radical cholecystectomy).

**Metastatic Work up – CT Chest Staging Laparoscopy (non-metastatic)**

**GBC – Stage I, II & selected IIIA**
Radical Cholecystectomy (MIS / Open – as per available expertise)

Frozen section Proceed with radical surgery IF muscle invasion
OR
Send for HPR and await final report – (treat as per guidelines for incidental GBC)

Locally advanced – stage III / IVA / IVB
Peri Operative therapy (All to be discussed in MDT)
Radical surgery only in highly selected cases (may entail EHBTE / adjoining organ excision – distal gastrectomy or colectomy without added morbidity)

*No proven benefit / evidence for augmentation procedures like PVE and major hepatectomy / PD / HPD.*

**ADJUVANT THERAPY**
Adjuvant chemotherapy in patients ≥ pT2 and Node positive
Adjuvant Radiotherapy only for margin positivity /R+ resections

**RADICAL/EXTENDED CHOLECYSTECTOMY**

*encompasses removal of Gall bladder along with excision of GB fossa of the Liver – minimum 2.5 cms wedge of liver (extended) or formal segment 4b & 5 (radical) and flush ligation of cystic duct with bile duct (frozen section regulated negative cystic duct margin) along with periporal and retroduodenal nodal clearance – station 8, 12 and 13*

*Para aortic lymph nodal sampling (station 16) should be done before proceeding to radical surgery.*
2. INCIDENTAL GBC (iGBC)

Diagnosis of Gallbladder cancer based on post operative histopathology of the gallbladder specimen in a case where cholecystectomy (Laparoscopic or open) done for a presumed benign gall bladder pathology

Complete metastatic work up: CT Chest abdomen pelvis / PET CT if presenting after 6 weeks
Repeat all labs + Tumour marker CA 19-9
Review of Histopathology – Ideally entire gallbladder to be processed. Note T stage, cystic duct margin and cystic node
Diagnostic laparoscopy if presenting after 4 weeks prior to definitive surgery.

\[ pT1b \text{ and above} \]
\[ \text{Stage I, II} \& \text{selected stage IIIA} \]
Revision Surgery - Revision Radical / Extended Cholecystectomy

\[ pT3, T4 \text{ and } N + \text{ patients} \]
\[ \text{Stage III, Stage IVA} \& \text{IVB} \]
Peri-Operative treatment
To be treated as Locally advanced GBC.

Adjuvant Chemotherapy as per Stage

There is no upper and lower time limit for Revision Surgery. Should be done as early as possible and whenever feasible.

No level I or II evidence for Neoadjuvant RT – should be done in trial setting only.

**Revision Surgery**: Essentially same as Radical cholecystectomy, however, it is important to revise the cystic duct stump to confirm margin negativity on frozen section.

EHBTE can be performed to obtain negative margins or for complete nodal clearance if nodes are densely adherent to bile duct, however routine excision of bile duct is not recommended.

Para aortic lymph nodal sampling is recommended before proceeding to curative surgery.
Identifies high risk group GBC which are likely to relapse or fail at distant sites.

Clinical T 3,4 and any T with node positive disease – stage III and IVA, IVB OR iGBC with evidence of residual or recurrent disease with no clinic-radiological evidence of distant metastasis

CBC Creatinine, CA 19-9, LFT
Obtaining tissue diagnosis: Biopsy/ FNAB is mandatory to confirm diagnosis
Staging: Whole body PET CECT Scan
CECT Scan - Chest, Abdomen and Pelvis

In patients presenting with OJ:
Rule out OJ due to stone disease
MRCP to ascertain the exact level of block

Drainage –
Lower CBD block due to nodal compression – ERCP with plastic/ SEMS placement.
For type I / type II communicating block with roof intact – plastic stent / short SEMS ERC/PTBD
For type II non communicating /III/IV block – Only PTBD , bilateral / unilateral SEMS

Locally advanced unresectable disease unlikely to come up for curative resection
Hilar infiltration with involvement of porta hepatis/ hilar plate with OJ – Type II non communicating block or III / IV block
Encasement of main PV/LPV/CHA

Chemotherapy with palliative intent.
Can add Radiotherapy as a definitive treatment modality for local control, in absence of metastatic disease

Locally advanced resectable disease or likely to come up for curative resection
T3, 4 disease, N+
Type I or II communicating block
No Main vessel or contralateral vessel encasement

Staging laparoscopy (optimal)

(PREFERRED PATHWAY)
Neoadjuvant chemotherapy – Gemcitabine + Cisplatin (3 – 4 #)
OR
Neoadjuvant Chemo-Radiotherapy (only in trial setting)
Reassess for possible curative resection
If unresectable or metastatic (PD) – continue palliative chemotherapy OR
Radical Cholecystectomy / Revision Surgery with / without EHBTE
4. METASTATIC GBC

Palliation of:

- **Obstructive Jaundice**
  - Biliary drainage depending on level and type of obstruction with metal stent placement.
  - ERCP preferred whenever possible as it is a less invasive procedure and can be performed even in presence of ascites

- **Bowel obstruction & Nutritional care**
  - Patient may require luminal stenting in case of duodenal or colonic obstruction OR surgical bypass – less preferred in advanced metastatic setting

- **Pain relief**
  - Adequate pain killers
  - Palliative Radiotherapy to symptomatic bony metastasis

**Palliative chemotherapy** – (to add additional IHC, if not confirmed to be an adenocarcinoma on morphology)

1st line chemotherapy: (level I) Gem Cis 3 weekly till progression, response assessment after every 3 to 4 cycles.
(level IIB): Gem cis nab paclitaxel combination

2nd line chemotherapy (level IIB):
Fluopyrimidine and or irinotecan / oxaliplatin based chemotherapy
*Regorafenib*
*Bevacizumab erlotinib (Level IIB/III).*
References


