Incidental Cancer Gall Bladder

Subodh Varshney
MS, FRCS, FACS, FACG, FRSM
MNAMS, Diploma GI Surgery, FIAGES

Prof (NBE) and Head GI Surgery
Bhopal Memorial Hospital and Research Centre.
Incidental Ca Gall Bladder

- Ca Gall Bladder in general poor 5yr survival <5%.
- Only 30% to 50% of all GBC suspected preop.
- Incidental GBC incidence 0.2 to 2.9%
- Increasingly becoming more common, especially with the advent of Lap chole.

(Paolucci V et al World J Surg 2001)
Incidence

- Chile: 4.0% (1039/25971)
- Bosnia: 0.69% (21/3007)
- Nepal: 1.4% (22 668)
- China: 0.19% (20/10466)
- Korea: 0.19% (33/3145)
- Switzerland: 0.28% (89/30960)
- India: 1.02% (27/2654)
- Japan: 0.83% (10/1195)
Is East different from West

- Chile v/s USA v/s Japan
- Japan less incidence
- More Young and female pt chile
- Outcome SAME, dependent on Tumour extent

- (Butte JM et al J AM Coll Surg 2011)
Natural History of GB Cancer

- n= 25971 specimens
- Associated metaplasia - 66%
  Dysplasia -81%   CIS 69%
  Chr Inflm  92%
- Cancer 1039 /25971 - 4%
  Dysplasia 210 / 25971 - 0.8 %
  Dysplasia → Carcinoma → > 10 yrs

(Roa EI etal Rev Med Chil 2009)
Residual disease at 2\textsuperscript{nd} operation

- French group = 56%
- MSKCC = 74%

(Duffy A et al J Surg Oncol 2008)
Role of Retrieval Bags

- Bags n = 174 Rec Rate 32.2
- No Bags n = 156 Rec Rate 27%
- If GB perforated Rec Rate - 38.4%
- If GB non perforated Rec Rate - 27.2%

(Goetz TO World J Surg 2009)
Timing of Diagnosis v/s Prognosis

- Preop: n = 76
- Intraop: n = 44
- Postop: n = 32
- If $R_0$ resection achieved survival comparable in all 3 group
- Sig change in intended procedure- 85%

(Lohe F Eur J Med Res 2009)
Incidental Ca Gall Bladder

- Reason for extended resection even in $T_2$:  
  - Micromets in GB bed  
  - Perimuscular connective tissue infiltration  
- Most micromets in 15-27 mm of GB bed  
  \textit{(Endo I et al World J Surg 2004)}
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- Specific concerns following LC:
  - Port site metastases
  - Early peritoneal spread
  - Redo surgery following workup
    
    (Nakuda CC et al Br J Surg 1994)

- Initial Chole : Lap v/s Open : (No diff)
  Survival is stage dependent

  (Goetz TO et al Surg Endose 2006)
  (Cucinotta E et al ANZ J Surg 2005)
  (Wu QH et al Zhonghua Wai Ke Za Zhi 2010)

- Immediate conversion v/s Early Redo (No diff)
  
  (Kwon AH et al J Surg Oncol 2008)
Immediate v/s Late resection

<table>
<thead>
<tr>
<th>Stage</th>
<th>Immediate</th>
<th>Later</th>
</tr>
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<tbody>
<tr>
<td>$T_2$ $N_0$</td>
<td>$n = 9$</td>
<td>$n = 9$</td>
</tr>
<tr>
<td>$T_3$ $N_1$</td>
<td>$n = 12$</td>
<td>$n = 8$</td>
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Survival = Similar

*(Chosy et al World J Surg 2010)*
Port site metastases:  
- 70/409 (17.1%) of IGBC  
  8 used protective bags  
- Lap v/s Open 7% v/s 5.1% (NS)  
- Open chole (31%) v/s Lap (29%) (NS)  
  (Paolucci V et al Zentralbl Chir 2003)  
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- Port site resection n = 69
- No resection n = 44
- Port site met seen only in > T₂
- Correlates to peritoneal disease
- Survival no mets = median 42mon
  Met present = median 17mon

Prognostic & staging value
  (Marker AV et al Ann Surg Oncol 2012)
- Bile spillage/GB rupture/CBD expl with GBC
  ↑ incidence of peritoneal recurrence
  (Yamamoto H et al JHPB Surg 2005)
Workup before 2\textsuperscript{nd} op

- Review Histology.
- MDCT – Local disease
- Residual disease
  - Sensi & PPV – 42.8%
- Resectability –
  - Sensi – 100% PPV – 91.3%
- PETCT – distant disease
- Resectability
  Sensi – 100 % & PPV – 87.5%

(Shukla PJ et al HPB 2008)
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- PET CT - n= 32
- -ve ; n=13; 4 → Sx; 1 peritoneal dis.
- +ve; 5 → Sx ; 2 disseminated.
- Median survival : -ve= 13.5m;
  +Resect = 6.2m;
  + diss= 4.9m

(Butt JM etal HPB 2009)
Diagnostic Lap before Resurgery

- Disseminated disease relatively uncommon in IGBC
- Diag Lap has low yield
- Only beneficial if poorly diff or $T_3$ stage or +ve margin

(Butte JM et al HPB 2011)
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- Poor risk factors
- Poorly diff Ca
- Margins positive
- T stage
- Lymphatic or LN involved
- Cystic duct margin involved.
- Perineural or vascular infiltration.
- Male gender
- Spillage during surgery

(Shibata et al World J Surg 2009)
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Approach to management:

- Tis; T1a → No further surgery
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• T1b → LN involvement - 16-25% (mainly mod or poorly diff)
• 5yr survival  Simple Chole  34-62.2%
  Radical Chole 75- 100%
  (Tsunoda et al japn j surg 1987)
  (Goetz TO et al Ann Surg 2008)
• 35% LN Involvement
  (Shukla PJ et al HPB 2008)
  - ? No Benefit
  (Glauser PM et al Surg Endosc 2010)
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- T2 \(\rightarrow\) LN Involvement 16-56%
- 5yr survival Simple Chole (0-19-35%)
  Radical Chole (55-61-78%)

(Goetz TO et al Ann Surg 2008)
(Fong et al Ann Surg 2000)
Benefit of Radical op in T2 Tumour

- T2 - Simple Chole 3 yr DSS - 8%
- Reop Radical Chole:
  - 64%: (if residual disease - ve)
  - 30%: (if residual disease + ve)

(Butte et al J Surg Oncol 2010)
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• T3 → LN Involvement - 75%
• 5yr survival Liver 4b+5 - 29%
  Simple Chole - 0%
• Survival better if LN -ve

(Goetz TO et al Ann Surg 2008)
(Barlett DL et al Ann Surg 1996)
Routine CBD Excision

• No advantage but ↑ morbidity
  
  (Fuks D et al. World J Surg 2011)

• Similar Survival.
  
  (Shih SP et al. Ann Surg 2007)

• Only When Cystic duct involved or papillary tumour.
Adequate Resection

- German registry (n=624)
- T1b - extended cholecystectomy 2-3 cm GB bed + LN dissection
- T2 - seg 4b +5 excision + LN Dissection
- T3 - more radical resection

(Goetze O et al Surg Endosc 2010)
French Registry

- N = 218 (IGBC)
- Portsite mets 1.8%
- Residual diseases 56%
- Reresection ↑ survival in T_2 and T_3
- Resection of CBD ↑ did not improve survival or R_0 resection but morbidity 60% v/s 23%

(Fuks D et al World J Surg 2011)
Gall Bladder with wedge liver
Gall Bladder with wedge liver
LN clearance
Incidental Ca Gall Bladder

Can we improve outcome in IGBC?

• Suspicious GBC on Pre op USG
• Suspicious GBC Intra-operatively
  → Intelligent Cholecystectomy→ frozen section → Rx as per stage.
• ↓ Incidence of missed GBC
• All suspicious specimen → Hx

Re op Laparoscopically

- Time - 162 min
- Blood loss < 100ml
- Morbidity & Mortality = 0%
- Hosp stay mean = 5 days

- (Belli G etal J Laparoendosc adv Surg Tech A 2011)
Our Data of IGBC

• 37/3450 IGBC
  – 4 lost to follow up.
• 18 suspicious intraop → frozen section
• 11 → Benign / xanthogranulomatous
Our Data of IGBC Frozen

- 8 GBC → 3 wedge resection (1 lap) (T1b)
  - (well 20 mon; 24 mon; 48 mon)
  - 1 T2 with cystic stump + ve
  - Wedge liver + biliary tree + L.N.
    (DFS - 29 mon)
- 2 T2 fundus → Wedge liver + LN
  (DFS: 42 mon; 54 mon)
- 2 T3 → seg 4b + 5 + LN
  one DFS 18 mon; one died 36 mon of recur.
Our Data of IGBC

- 25 post op Hx IGBC
- T 1a - 3, No Rx, well (36 - 84 mon)
- T 1b - 4, wedge liver, well (36 to 60 mon)
Our Data of IGBC

- T2 - 6, wedge liver + L.N.
  - 3 died of peritoneal recurrence (24-46 mon) all had adjuvant chemo, poor diff.,
  or LN + or rupture GB during 1st lap chole.
  - 3 alive (10 - 54 mon; well diff, LN -ve); 2 had adjuvant chemo.
Our Data of IGBC

- 5 T3 $\rightarrow$ 4b + 5 + L.N.
- (adjuvant; 3 DFS 12-29 mon) & two died 24 months, peritoneal recurrence (both poorly diff).
- 4 T4 Seg 4b +5 + L.N.
- (adjuvant chemo; died 9 -24mon)
- 2 patients T3 and T4 refused any further treatment.
- 1 patient was on CECT found to have metastatic disease and only had chemo.
Incidental Ca Gall Bladder

- Conclusion:
- We need to decrease the incidence of Incidental Ca GB by proper management of suspicious Gall bladder.
- Lap Chole does not negatively influence the operability of revision surgery nor does it increase the possibility of finding residual disease when compared to open surgery. Revision Radical Surgery should be performed whenever feasible in patients diagnosed with stage T1b and above. Increase in the T stage is associated with an increase chance of finding residual diseases at the time of revision radical surgery. And finally the time interval between the primary surgery and the revision radical surgery in case of incidental gall bladder cancer does not seem to affect operability till it is not more than 28 days.