Surgical options in the management of Cholangiocarcinoma (CCA)

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Anatomically CCA can be classified as:

- Intrahepatic CCA
- Extra hepatic CCA
  - Hilar CCA (Klatskin)
  - Distal CCA
PROGNOSIS

Traditional nihilistic v/s Optimistic approach

*R Blumgart
Key factors to take into account:

1. Tumor extent
2. Extent of disease
Extra Hepatic CCA

- Hilar CCA
- Middle and Distal CCA

Figure 1. Drawing illustrates the locations of the three types of cholangiocarcinomas: intrahepatic (peripheral) (yellow), perihilar (blue), and extrahepatic (orange).
Two surgical objectives:

1. Complete R0 resection of tumor
2. Restoration of Bilio-enteric continuity
Two main surgical problems:

1. Anatomic location
2. Invasive nature of Cholangiocarcinoma
Hilar CCA

1. Major surgical challenge
2. Need detailed info on: (clinical staging)
   i. Cancer location
      • extent of tumor within the biliary tree
      • vascular involvement
      • Hepatic lobar atrophy
   ii. Cancer spread(mets)
3. Complicated operative procedures
Selection of surgical procedure

1. Tumor extent (Bismuth-Corlette)
2. Hepatic reserve
Various surgical options

- R0 resection of diseased biliary system. The type of liver resection needed for this R0 resection will be dictated by the proximal extent of the CCA. Segment 1 resection often included in left sided hepatectomy.
Segment I Resection

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Conclusion

• There has been a paradigm shift!
• Hilar CCA should be treated with a positive attitude.
• The shift has been brought about by increasing the radicality of our surgical approach.
• Hilar CCA should be treated with R0 resection which will usually include some form of liver resection as well as subhilar LN dissection.
• Ipsilateral vessel involvement is amendable to resection.
Middle and Distal CCA

Should be treated as all other periampullary cancers

Various options include:

- PPD (regional pancreatectomy)
- Segmental bile duct resections
- Major Hepatectomy with PDD
- Total pancreatectomy
Intrahepatic CCA

- Classified and staged as Hepatomas
- Treated with Liver resection according to specific location
- Segment 1 most common site of recurrence
- Segment 1 resection? Standard practise?
- LN dissection should be standard practise
- Liver transplant controversial
Palliative surgery

When? What?
• Itrahepatic CCA
• Hilar CCA
• Distal CCA