Rigshospitalet

Imperial College London

REGION

Kræft i galdevejene – en sjælden sygdom ??

Professor

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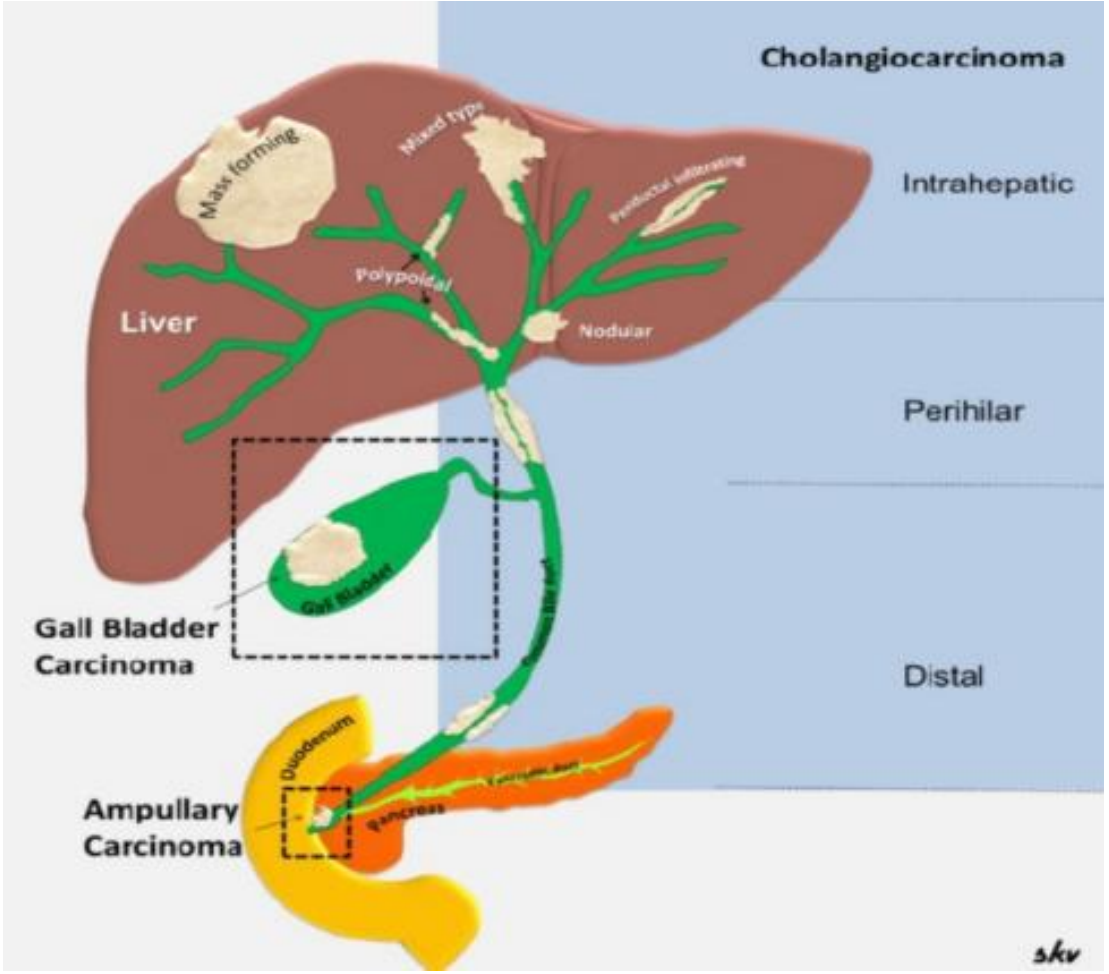
Kræft i galdeveje (Cholangiocarcinom)



Forekomst

- Cholangiocarcinom (CC) er den næsthyppigste primære levercancer efter hepatocellulært carcinom (HCC).
- I 2009 fik ca. 200 patienter stillet diagnosen CC. I et dansk registerstudie fandtes en incidens på 1,9 per
- 100.000 – i dag 150-200 nye tilfælde i DK/år
- Blandt patienter med inflammatorisk tarmsygdom (IBD) var den 4 gange øget risiko
- Galdeblærecancer (GBC) findes med 1-2 tilfælde per 100.000 indbyggere per år. Størstedelen findes, som tilfældigt fund, hos patienter, der gennemgår kolecystektomi for galdesten. Det drejer sig om 1-2% af alle kolecytektomier (7-10). GBC er 2-4 gange hyppigere hos kvinder end hos mænd.

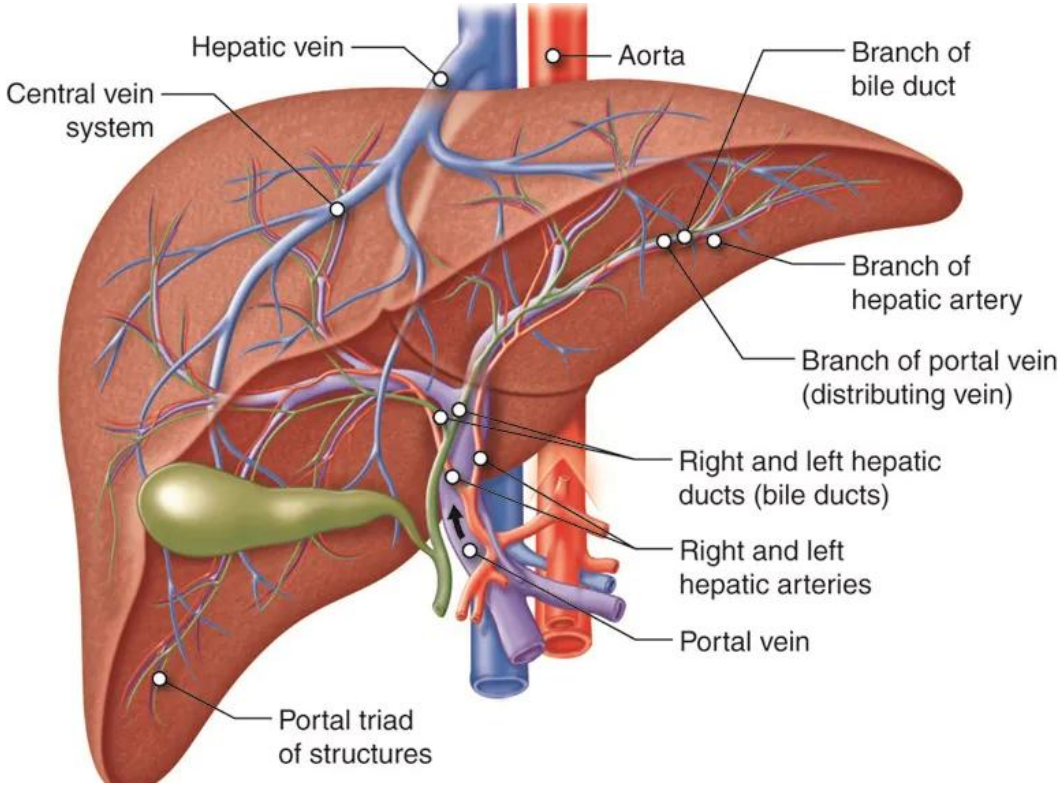
Fordeling af galdevejscancer

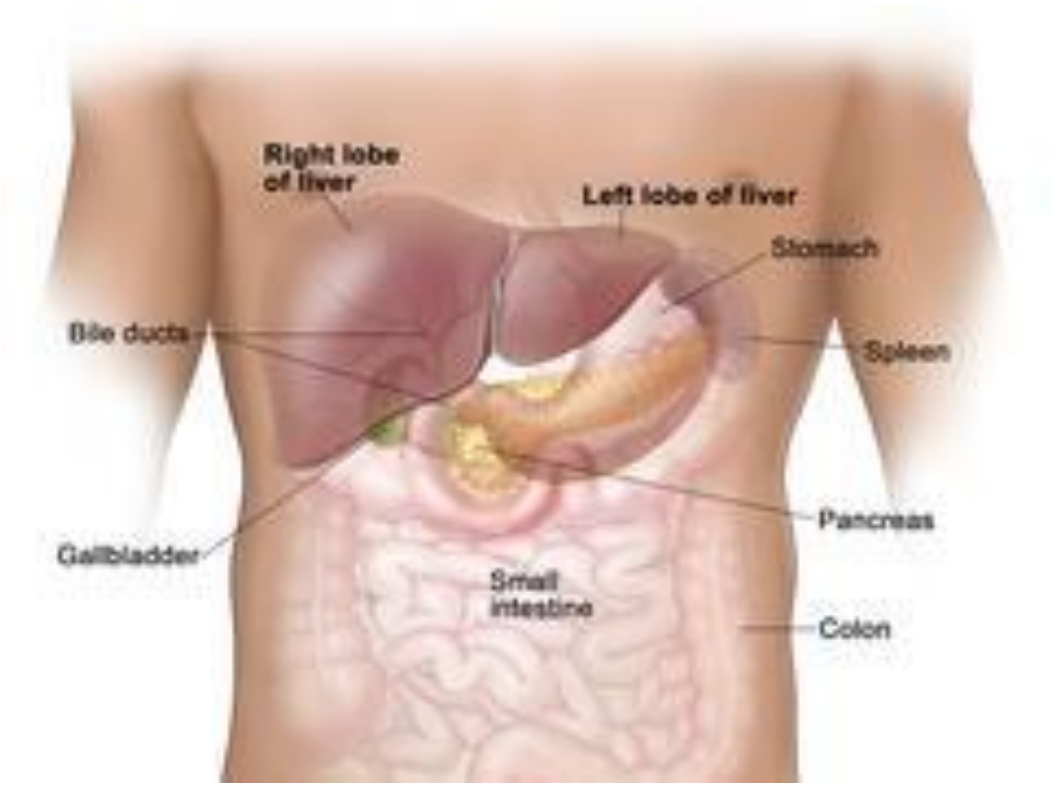
- Op til 20 % af CC er intrahepatiske (~40/år) og
- 50-60 % er perihililære ekstrahepatiske (~100/år)
- De distale ekstrahepatiske udgør 20-30 (~50/år)
- 5 % af tumorerne er multifokale
- Denne fordeling gælder for CC eksklusive galdeblærecancer.

Udredningsprogram

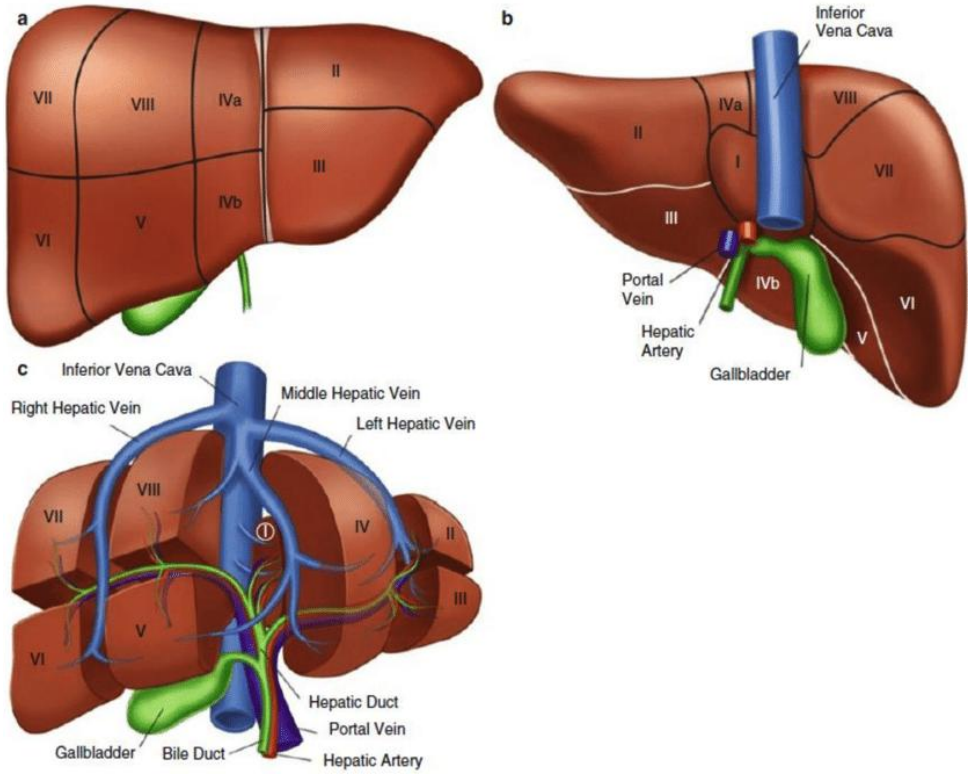
- Patienter med mistænkt CC skal have foretaget:
- 2-faset CT (arterie- + venefase) af thorax og abdomen
- Der suppleres med kombineret MR og MRCP ved hilært CC
- FDG PET
- PTC udføres med henblik på histologisk diagnose, tumorudbredning og/eller aflastning af galdevejene
- Kolangioskopi kan anvendes som supplement til ovenstående

Liver anatomy





Liver segmental anatomy



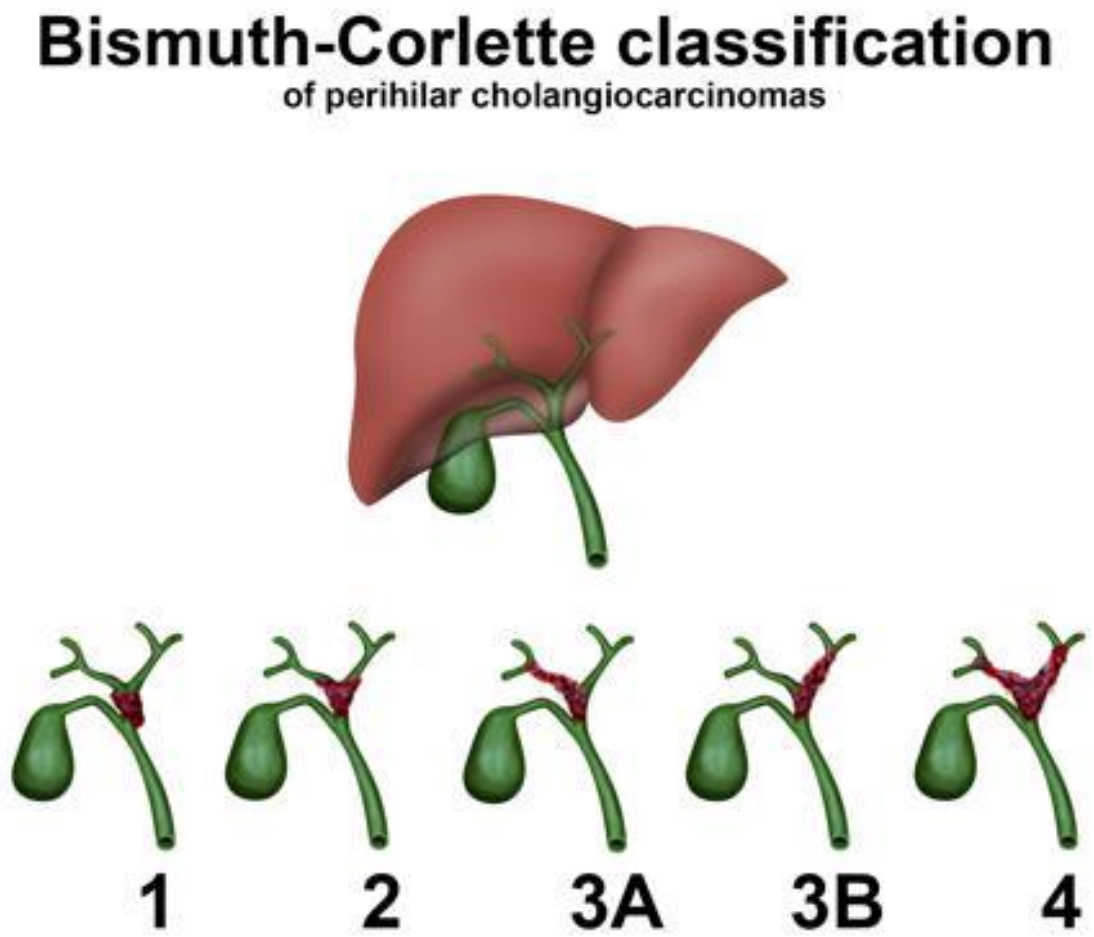
Forberedelse til operation for Hilært CC

- Levervolumen – FLR
- Portal embolisering før udvidet højresidig hepatektomi

- PTC kateter i den fremtidige leverrest(FLR) evt. begge sider af leveren ved tvivl om hvilken side der skal bevares
- Vente med operation til Bilirubin er under 50

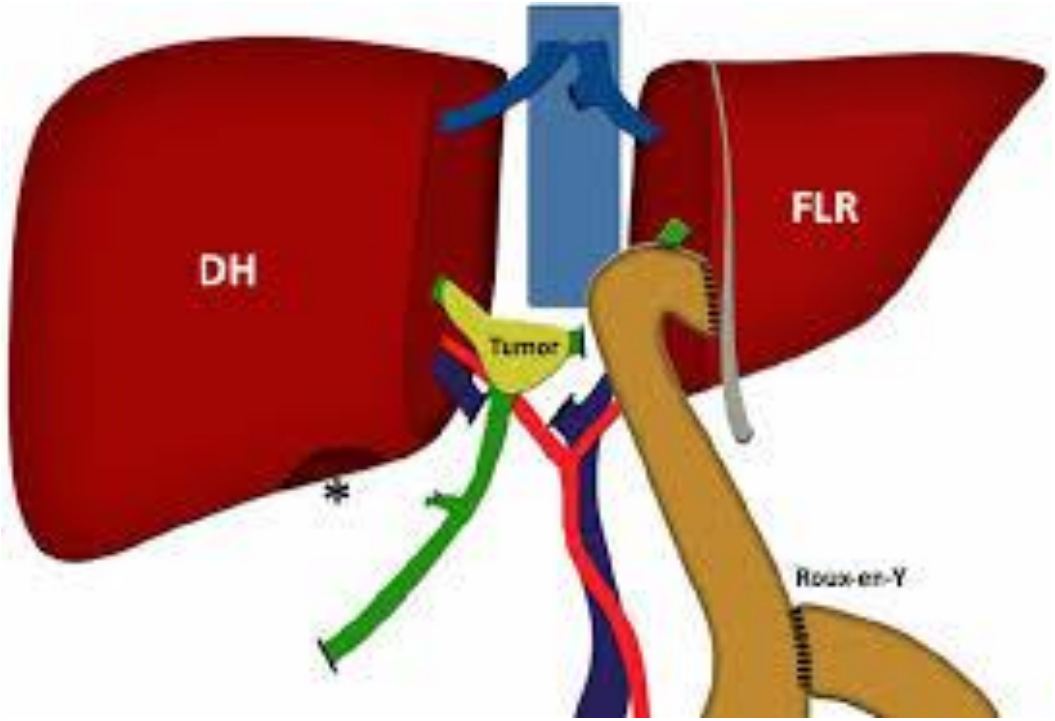
- Langsommelig proces
- Risiko for infektioner.

Klassifikation af hilært cholangiocarcinom



Klatskin operation

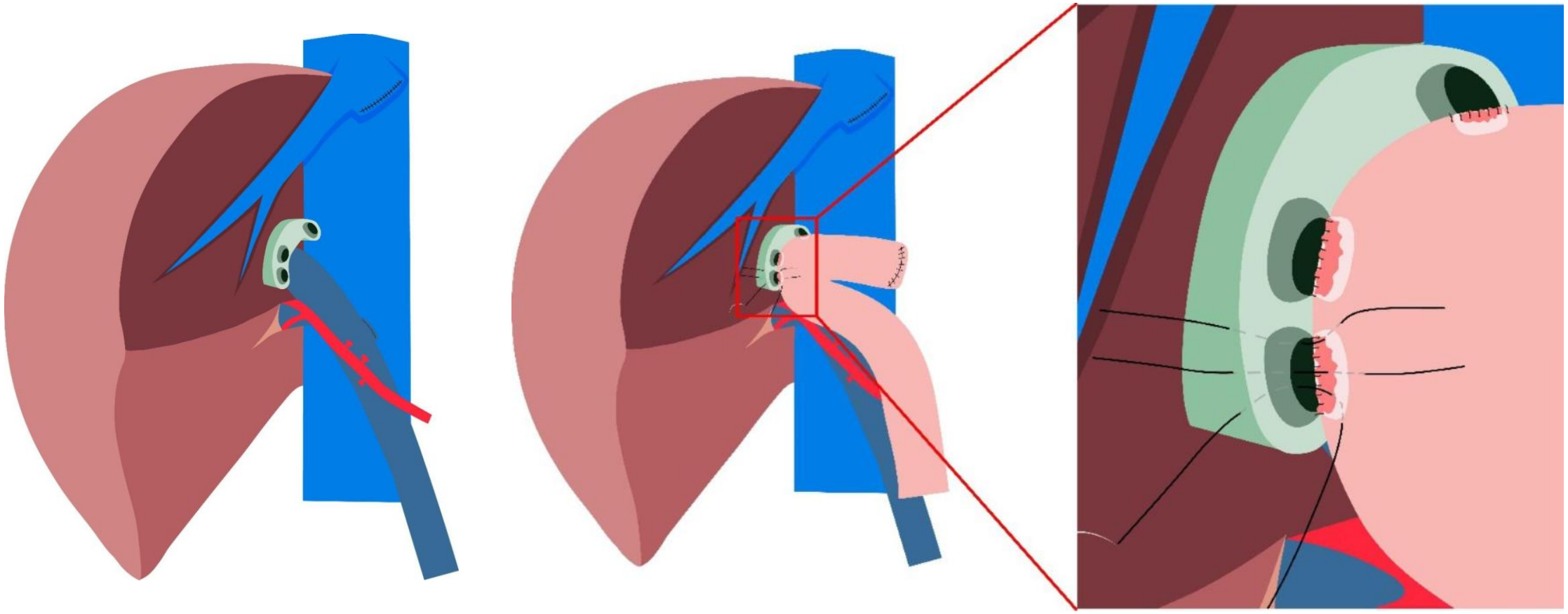
- Der foretages:
  - Udv Hø sidig hepatektomi (S4-8+S1) FLR S2+3
  - Ve hepatektomi (S1-4) FLR S5-8
  - Udv Ve hepatektomi (S1-5+8) FLR S6+7
- Rekonstruktion af tilbageværende galdeveje til tyndtarmsslynge



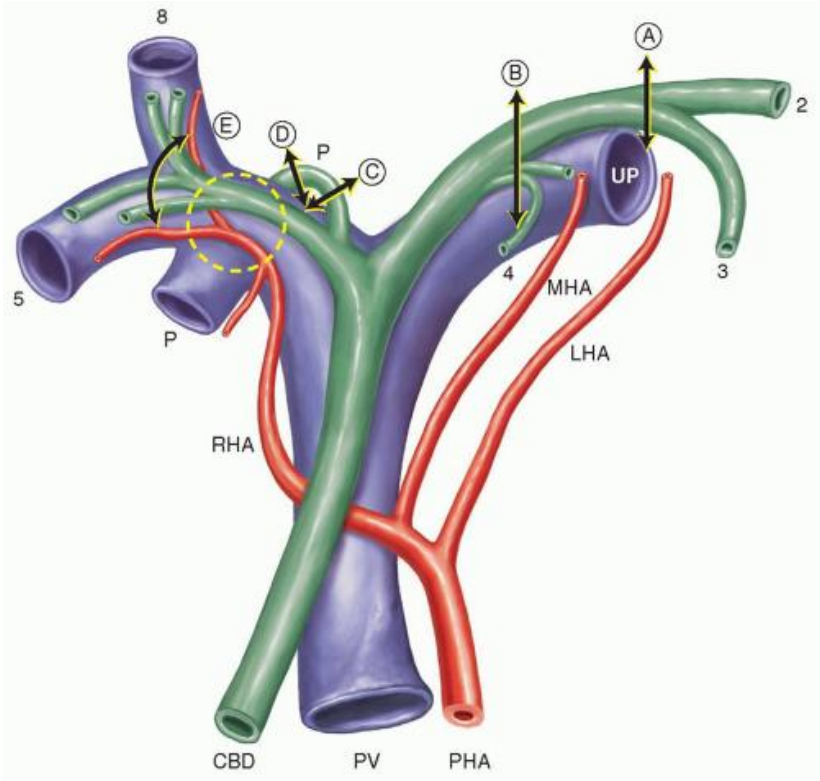
Hvor meget lever kan man fjerne 🤔

- FLR
  - 25-35%
- Volumen
  - Surrogat for leverfunktion
  - ICG (totale leverfunktion)
  - 99mTc-GSA (billeddannende teknik – funktionsfordeling)
- Kinetic Growth rate

Rekonstruktion af galdeveje efter Klatskin



Hvorfor er hilære CC svære at diagnosticere og behandle



Problemet er arterieinvasion

Invasion af leverarterier=dårlig prognose

R0 resektion=god prognose

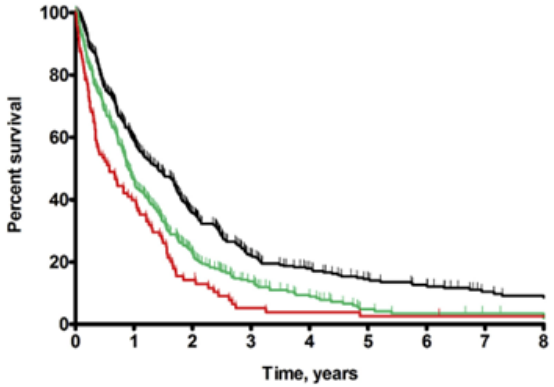


Figure 3 Kaplan–Meier survival curve of patients without hepatic artery involvement versus patients with unilateral or main/bilateral hepatic artery involvement

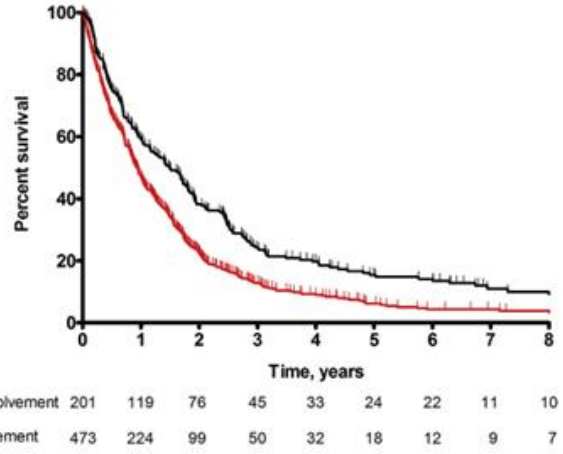


Figure 1 Kaplan–Meier survival curve of patients with versus patients without vascular involvement (i.e. portal vein and/or hepatic artery involvement ≥180°)

http://dx.doi.org/10.1016/j.hpb.2017.08.025 HPB

ORIGINAL ARTICLE

The prognostic value of portal vein and hepatic artery involvement in patients with perihilar cholangiocarcinoma

Jeroen L.A. van Vugt[1], Marcia P. Gaspersz[1], Robert J.S. Coelen[2], Jaynee Vugts[1], Tim A. Labeur[2], Jeroen de Jonge[1], Wojciech G. Polak[1], Olivier R.C. Busch[2], Marc G. Besselink[2], Jan N.M. IJzermans[1], Chung Y. Nio[3], Thomas M. van Gulik[2], François E.J.A. Willemssen[3] & Bas Groot Koerkamp[1]

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Arterieinvasion – hvad nu ???

- Dårligt belyst
- Arterierekonstruktion
- Kompromis med radikalitet
- Patency
- Komplikationer
  - Livstruende blødning
  - levernekrose

TABLE 3 Morbidity and mortality in each group

	VR(−) (n = 74)	VR-PV (n = 54)	VR-A (n = 44)	p value
No. of patients with morbidity (%)	61 (82.4%)	38 (70.3%)	36 (81.8%)	0.326
Grade I	1	1	0	
Grade II	24	14	7	
Grade III	28	18	22	
Grade IV	5	3	3	
Grade V	3	2	4	
Frequency of enents				
Hyperbilirubinemia	10	4	5	
Liver abscess	0	1	6	
Liver failure	6	4	5	
Biliary leakage	19	9	8	
Hepaticojejunostomy insufficiency	13	3	9	
Intra abdominal abscess	10	12	9	
Pancreatic fistula	6	2	1	
Pancreatojejunostomy insufficiency	3	1	0	
Intra abdominal bleeding	2	2	3	
PneUillonia	7	2	1	
Pulmonary thrombosis	1	0	0	
Aterectasis	1	0	0	
Sepsis	3	0	0	
Ileus	1	0	0	
Gastrointestinal bleeding	4	1	2	
Cholangitis	11	1	4	
Occlusion of reconstructed portal vein	1	1	1	
Occlusion of reconstructed hepatic artery	0	0	2	
Abdominal wall dehiscence	3	0	0	
Wound infection	2	3	3	
Colitis	4	2	1	
Renal failure	2	3	0	
Delayed gastric emptying	4	1	1	
No. of patients 90 day mortality (%)	3 (4.0%)	2 (3.7%)	4 (9.0%)	0.693


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Annals of SURGICAL ONCOLOGY

ORIGINAL ARTICLE – HEPATOBILIARY TUMORS

Significance of Vascular Resection and Reconstruction in Surgery for Hilar Cholangiocarcinoma: With Special Reference to Hepatic Arterial Resection and Reconstruction

Ryusei Matsuyama, MD[1], Ryutaro Mori, MD[1], Yohei Ota, MD[1], Yuki Homma, MD[1], Takafumi Kumamoto, MD[1], Kazuhisa Takeda, MD[1], Daisuke Morioka, MD[1], Jiro Maegawa, MD[2], and Itaru Endo, MD[1]

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Yazuda Procedure

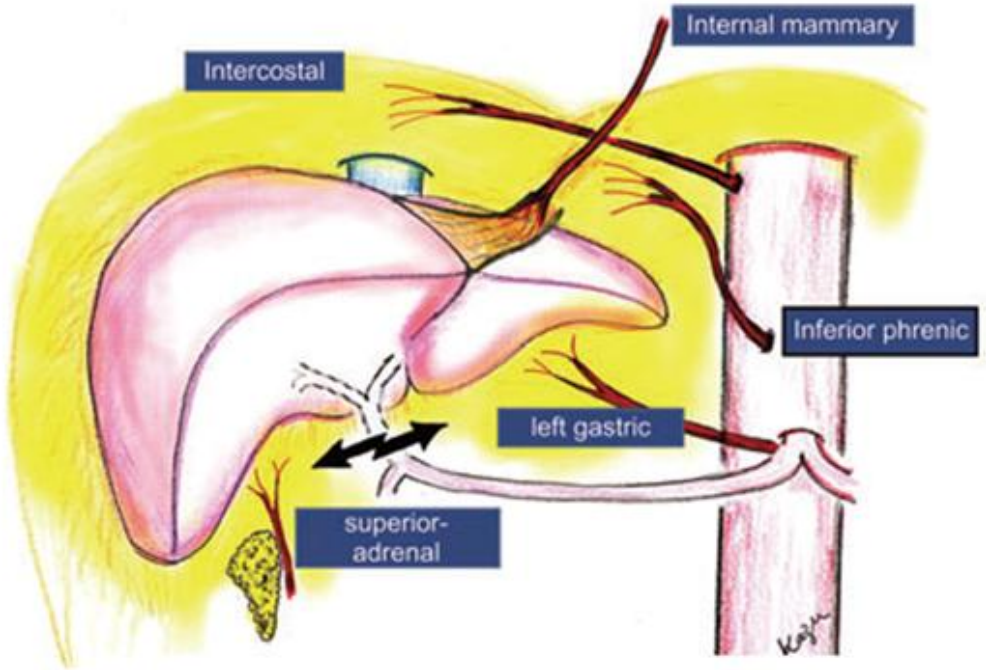

Figure 1 The main collateral arterial blood sources after interruption of the hepatic artery

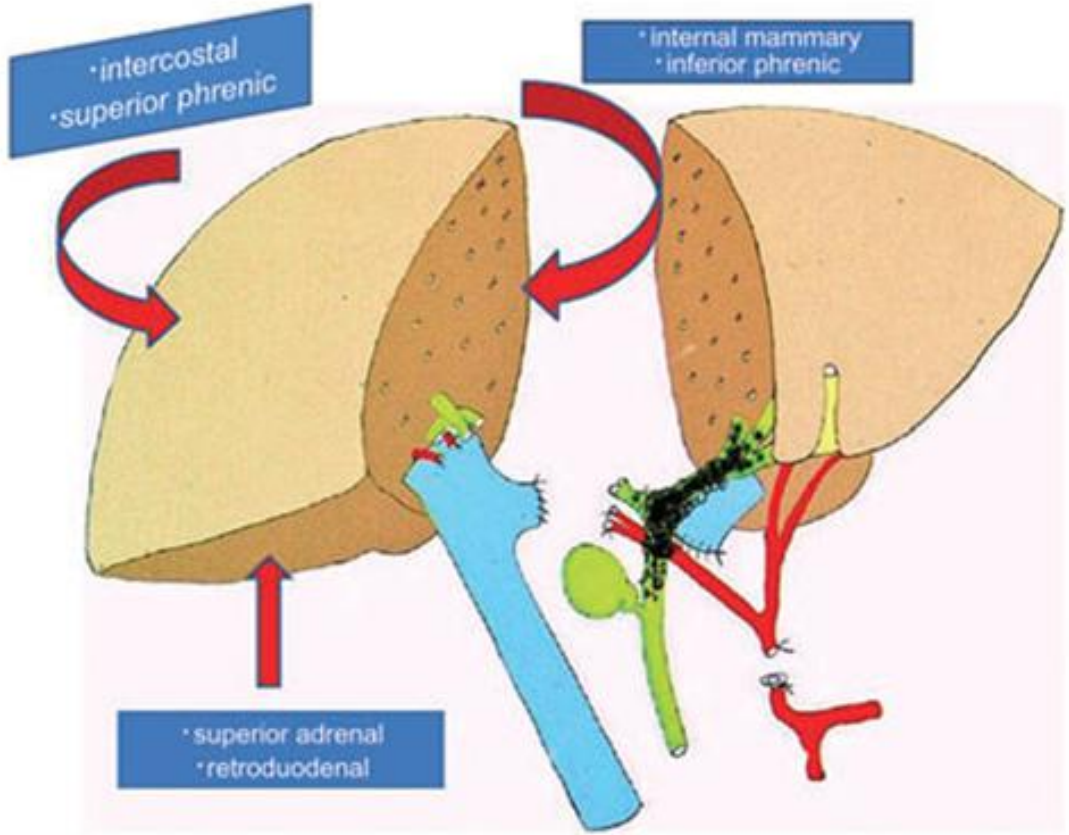

Figure 4 Operative drawing of the situation after completion of surgery

DOI:10.1111/j.1477-2574.2009.00152.x HPB

ORIGINAL ARTICLE

Resection of hilar cholangiocarcinoma with left hepatectomy after pre-operative embolization of the proper hepatic artery

Yoshikazu Yasuda[1], Peter N Larsen[2], Toshimitsu Ishibashi[1], Keisuke Yamashita[1] & Hisao Toei[3]

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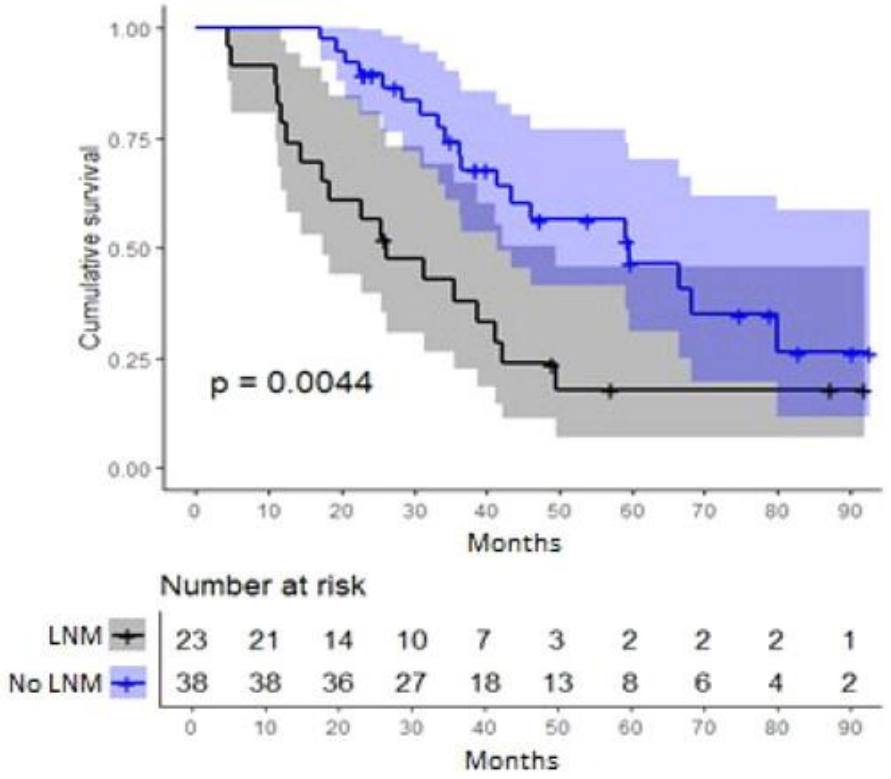
Andre behandlings modaliterer

- LTx for perihilære cc

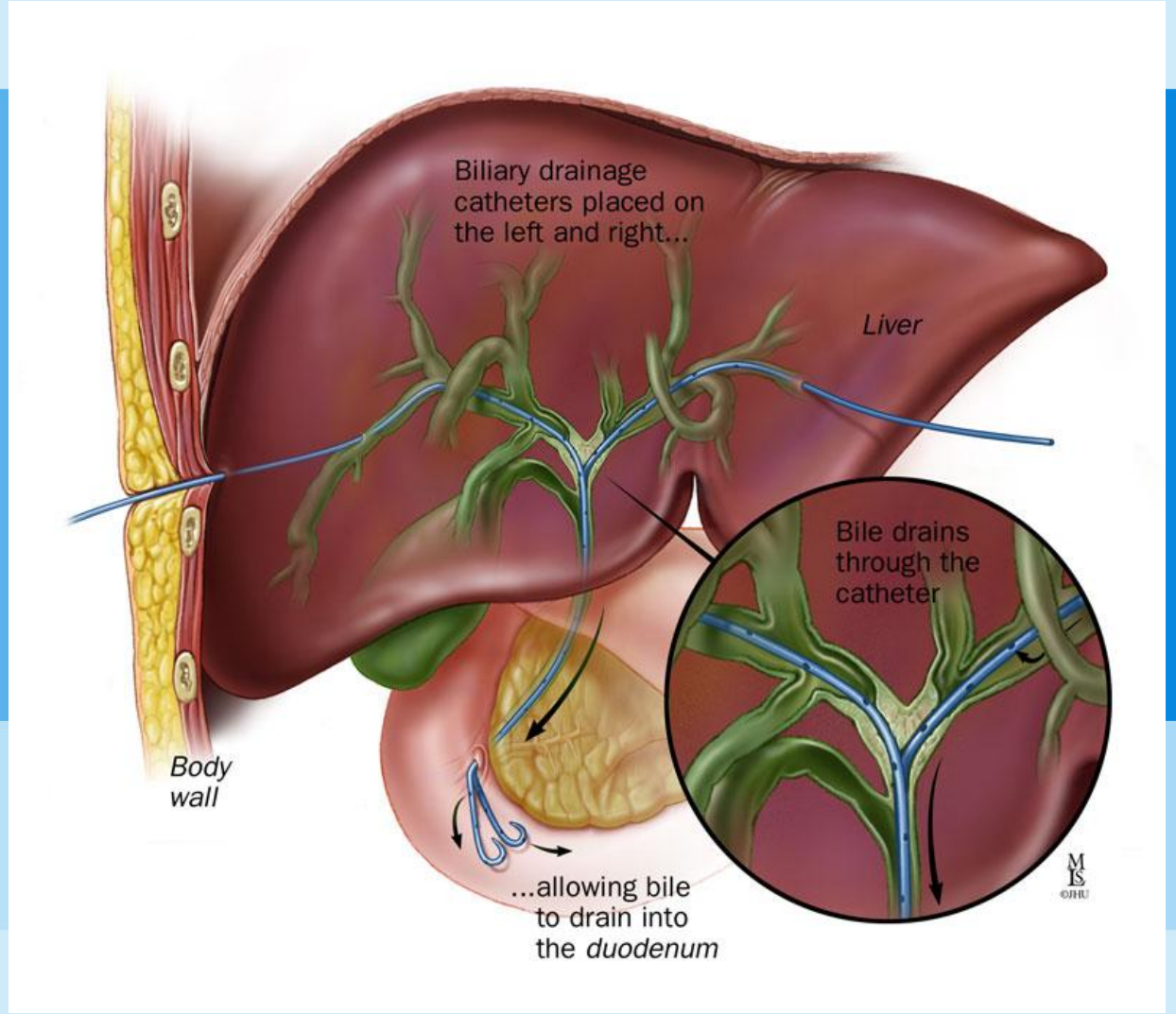
- Palliative regimer
  - TACE
  - IRE
  - SBRT

- Overlevelse for hilært cholangiocarcinom

- Op til 60 % 5 årsoverlevelse ved R0-resektion



Internt/Externt PTC



EXT PTC