



EXPOVILLE
JOINVILLE / SC

**CONGRESSO
SULBRASILEIRO
DE DOENÇAS
DIGESTIVAS
2025**

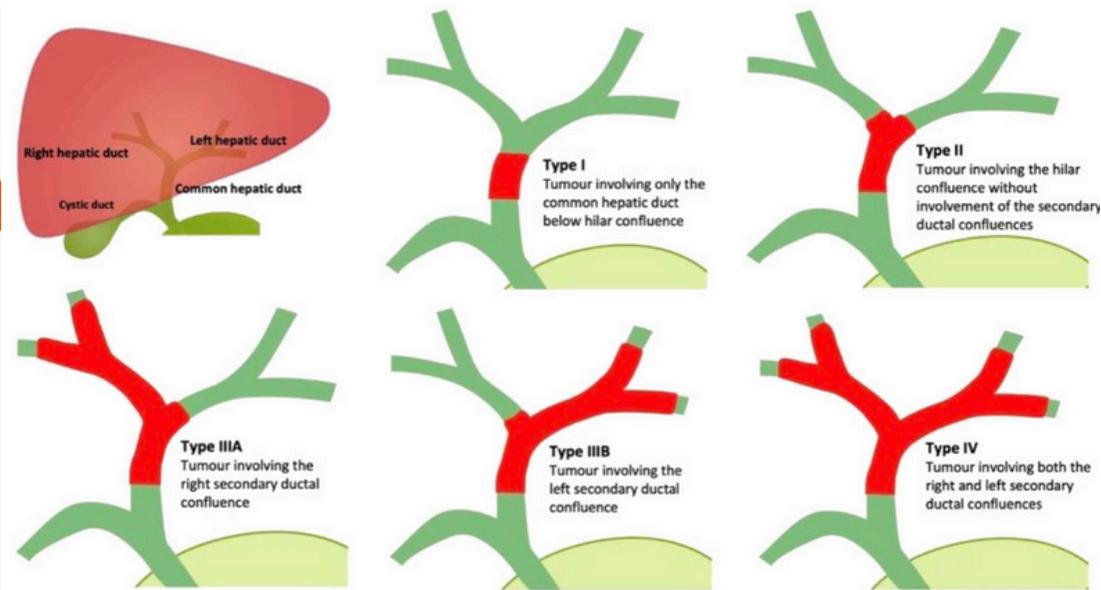
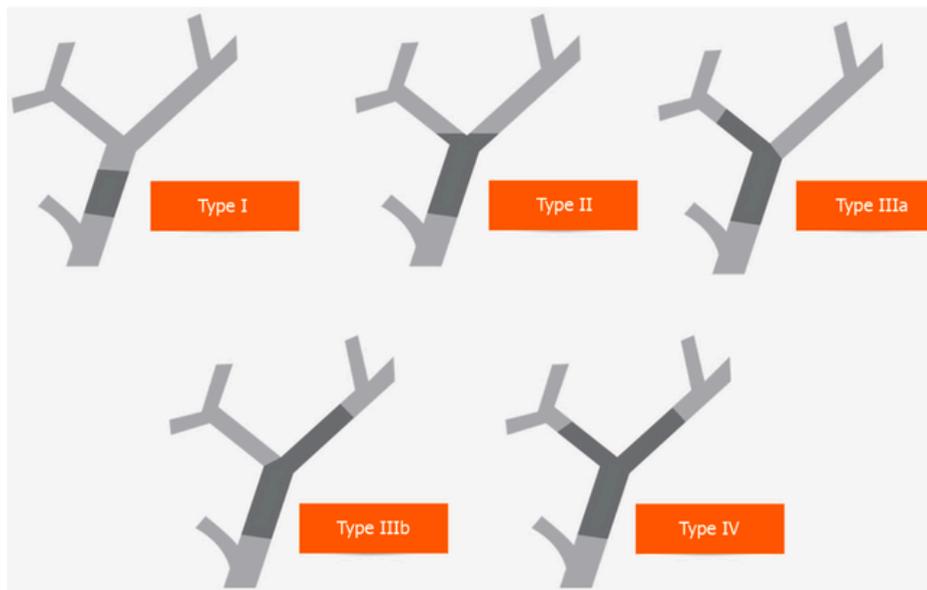
DIGESUL
CIRURGIA SC
SUL HPB CIRURGIA HEPATO-PANCREATO-BILIAR
CONGRESSO CATARINENSE DA SBAIT

29-31 | MAIO | 2025

TÉCNICA CIRÚRGICA NO TUMOR DE KLATSKIN TIPS AND TRICKS

Orlando Jorge M. Torres
Department of Gastrointestinal Surgery
Hepatopancreatobiliary Unit
Federal University of Maranhão - Brazil

BISMUTH-CORLETTE

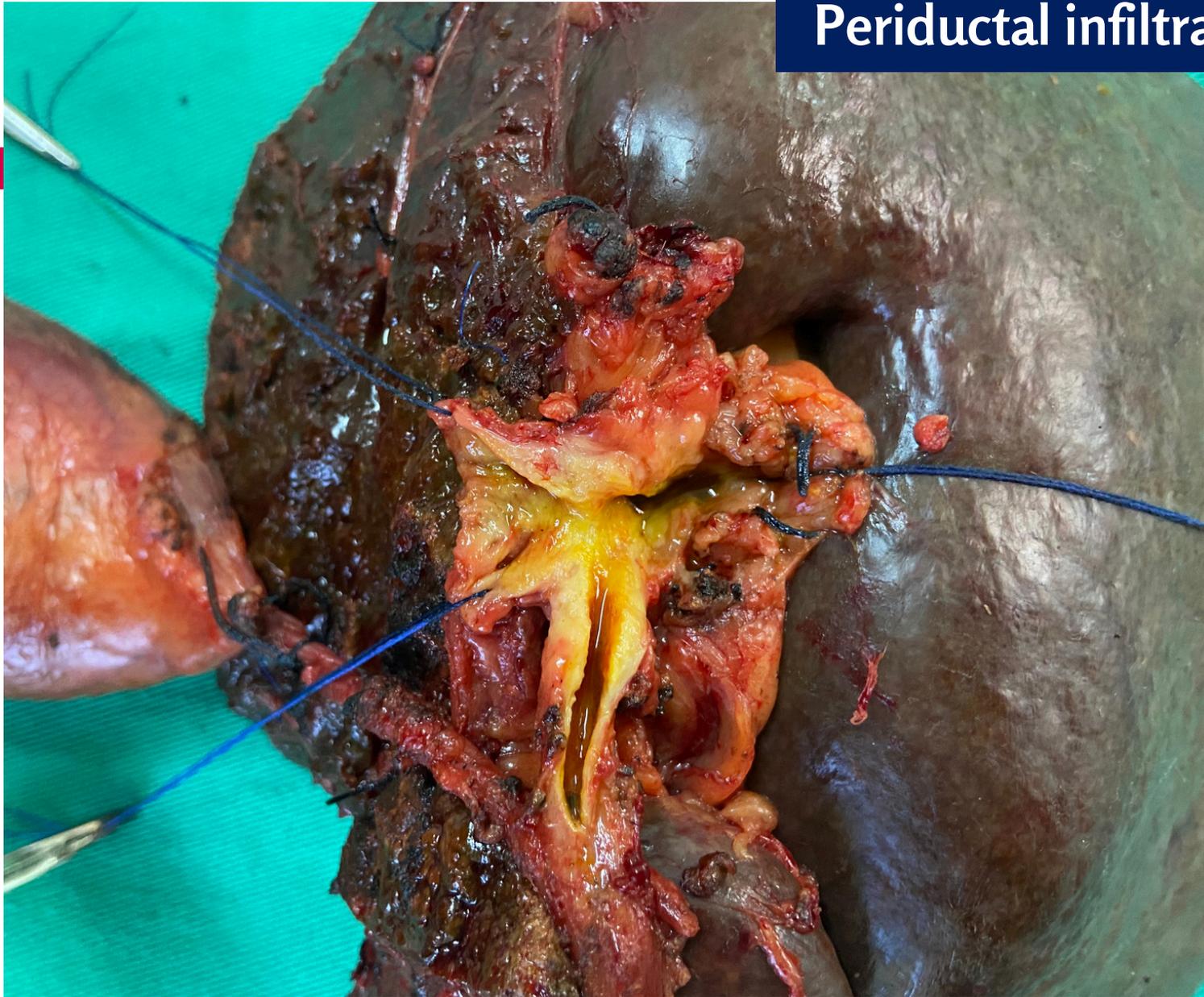


Dar FS, et al. World J Gastroenterol 2024; 30: 1018-42

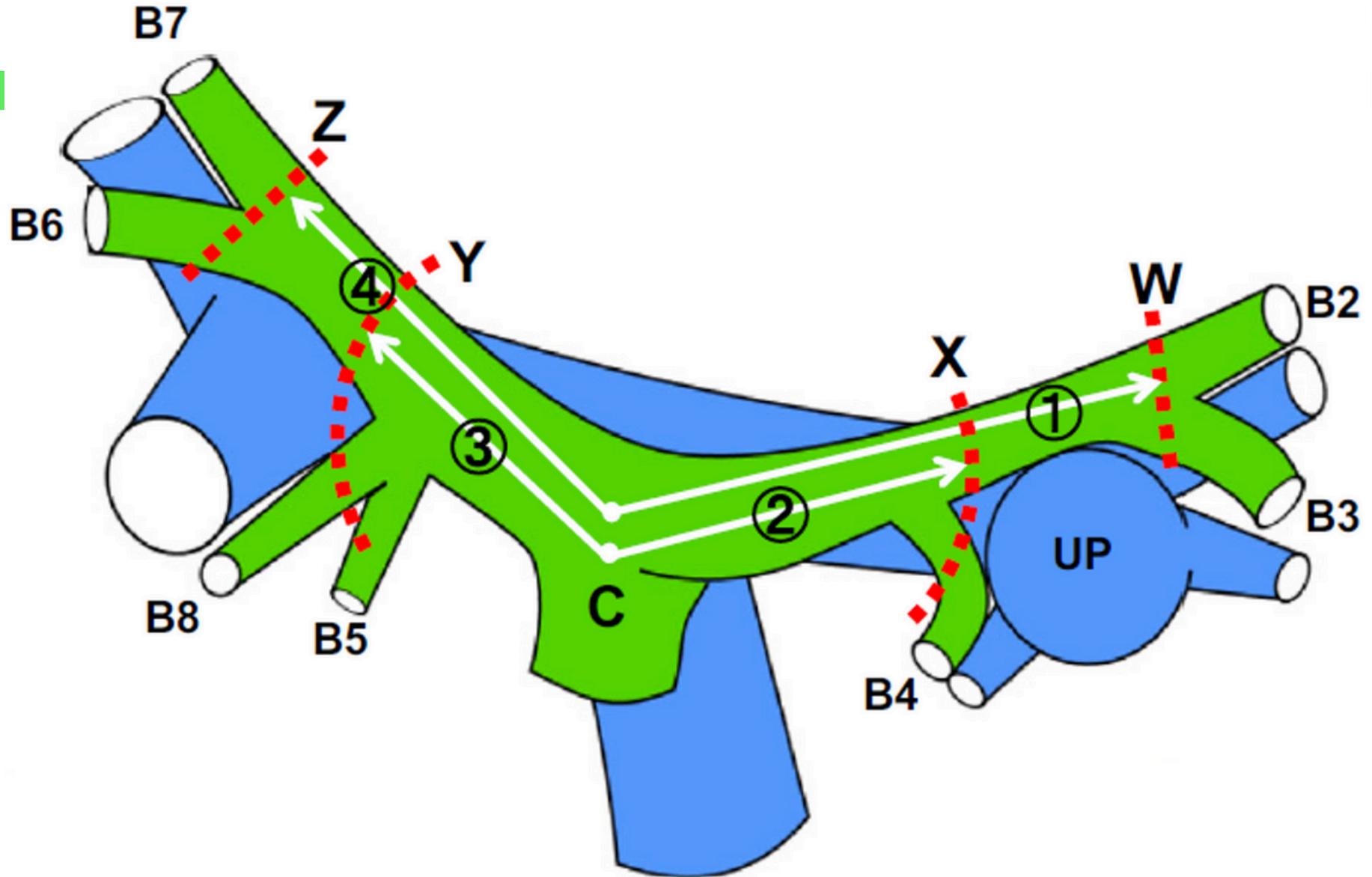
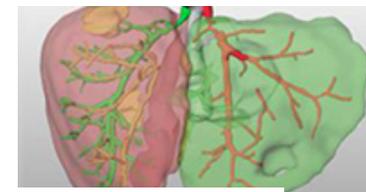
Yong YSS, et al. J Korean Soc Radiol 2025;86:45-67

Bismuth H, Corlette MB. Surg Gynecol Obstet 1975;140:170-8.

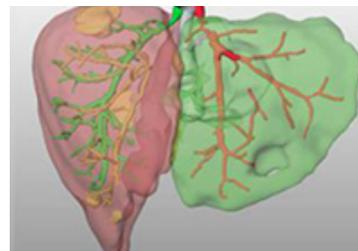
Periductal infiltration



ANATOMIC CONSIDERATIONS



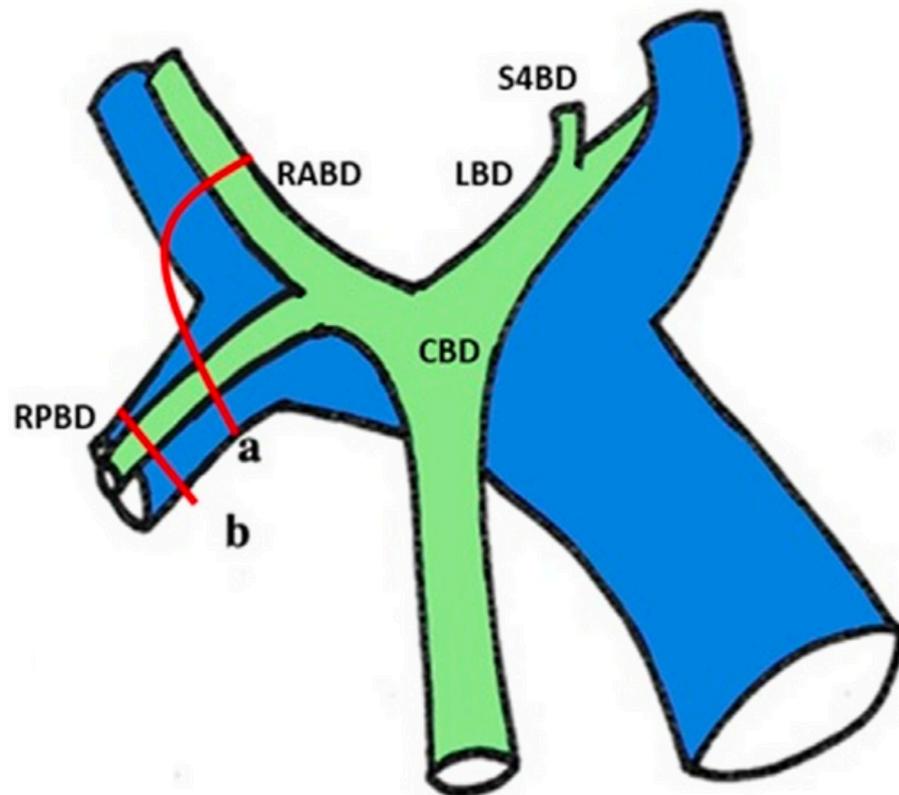
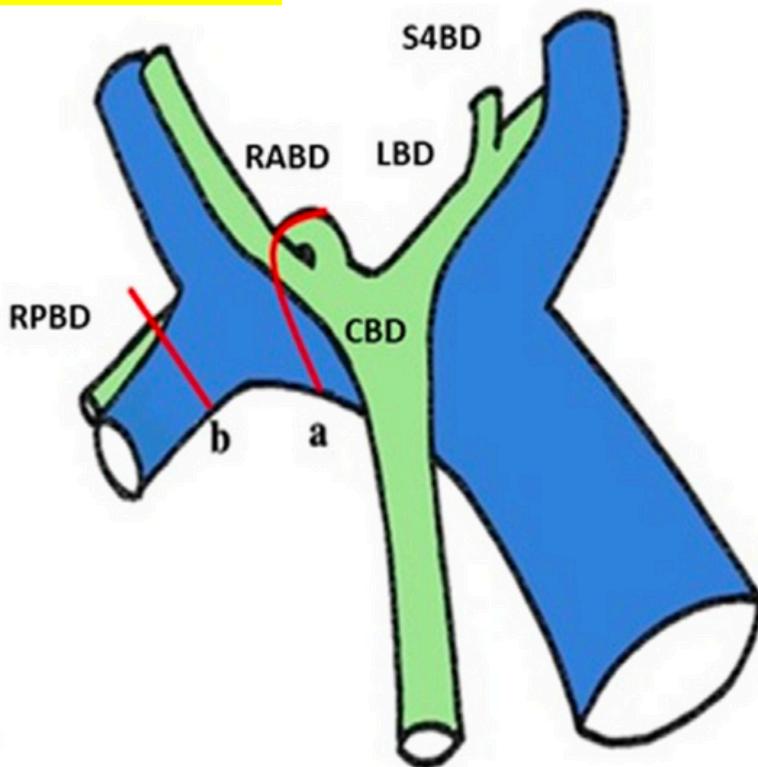
ANATOMY



Supraportal type

Infraportal type

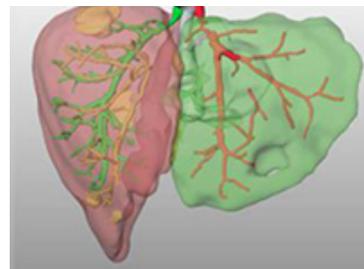
Hjortsjo's crook



- a) Left hepatectomy
- b) Left trisectionectomy

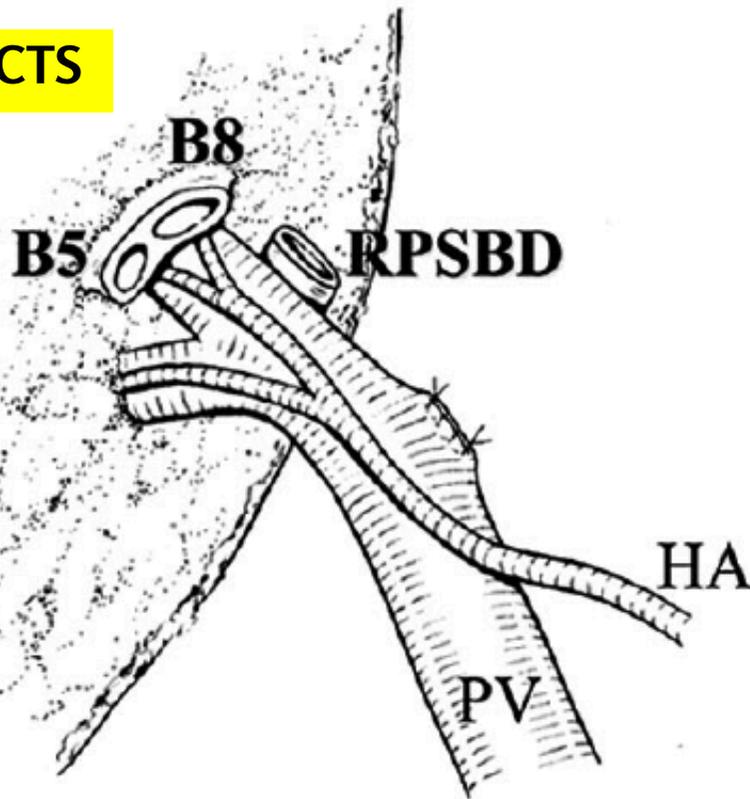
ANATOMIC CONSIDERATIONS

ORIGINAL ARTICLES

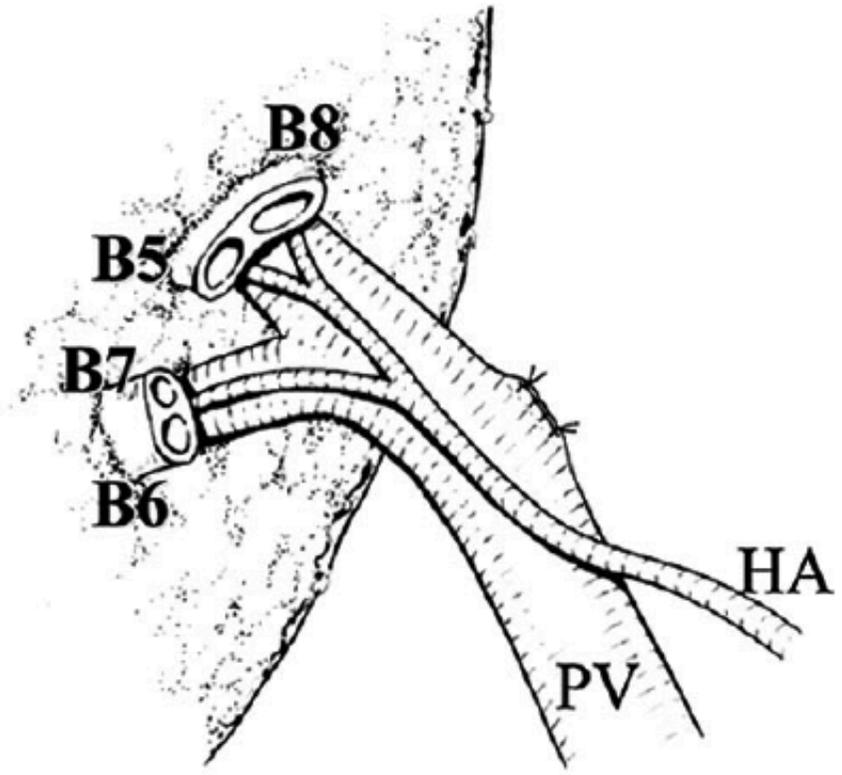


Clinical Significance of Biliary Vascular Anatomy of the Right Liver for Hilar Cholangiocarcinoma Applied to Left Hemihepatectomy

BILE DUCTS

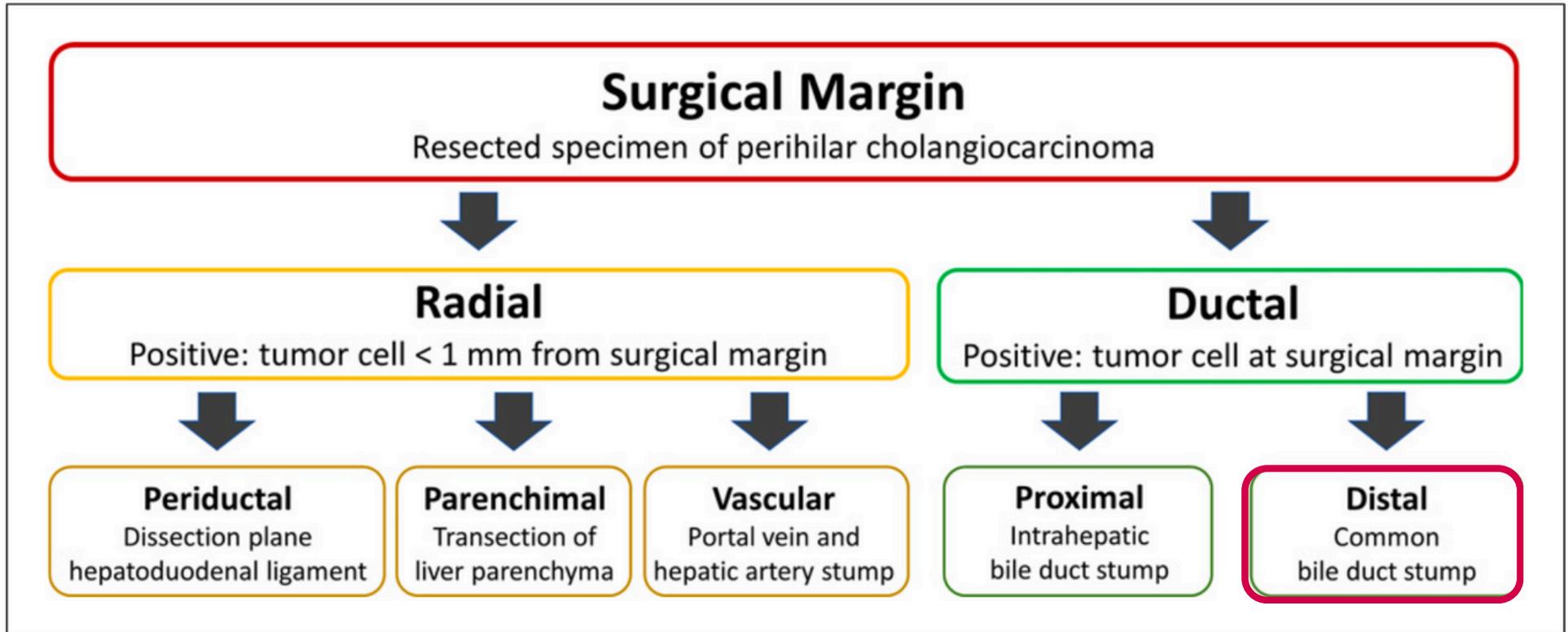
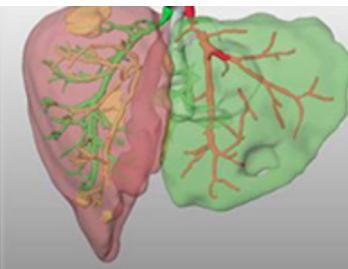


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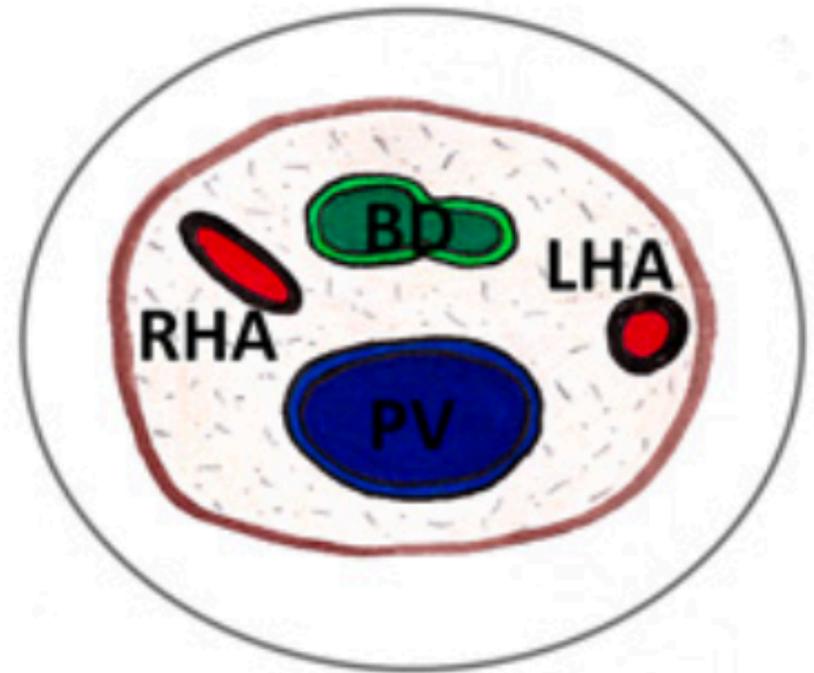
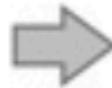
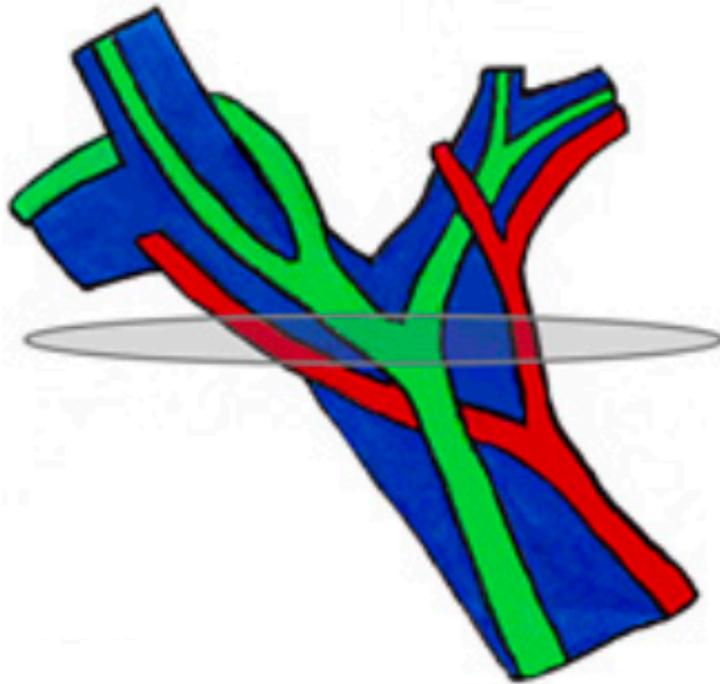
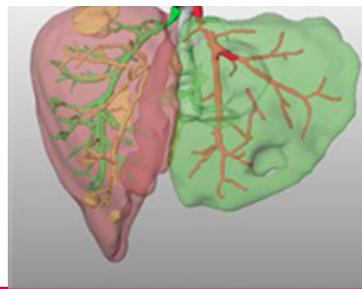


Infraportal type

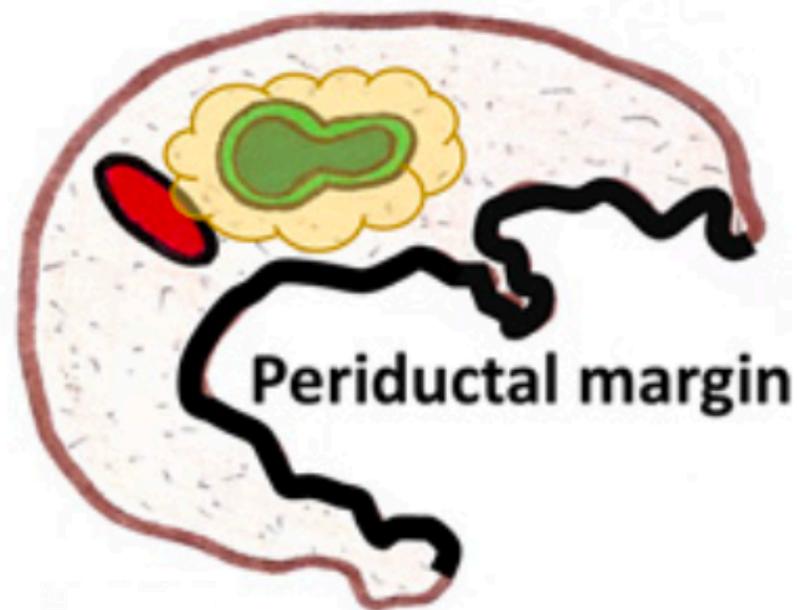
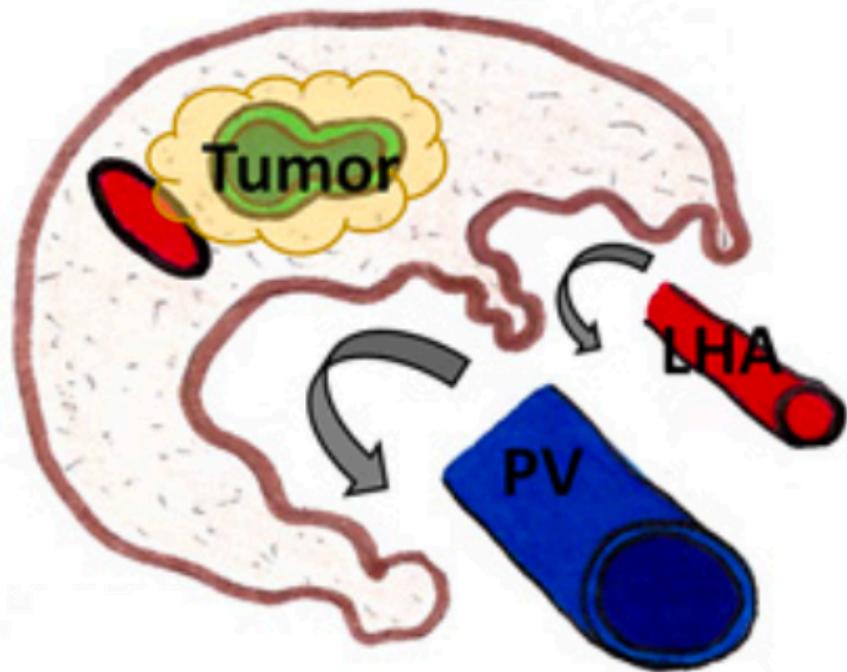
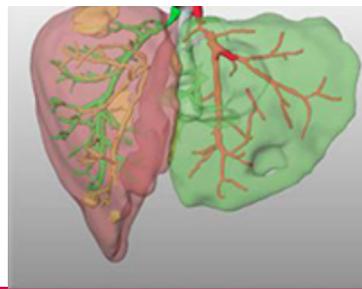
DUCTAL MARGIN STATUS



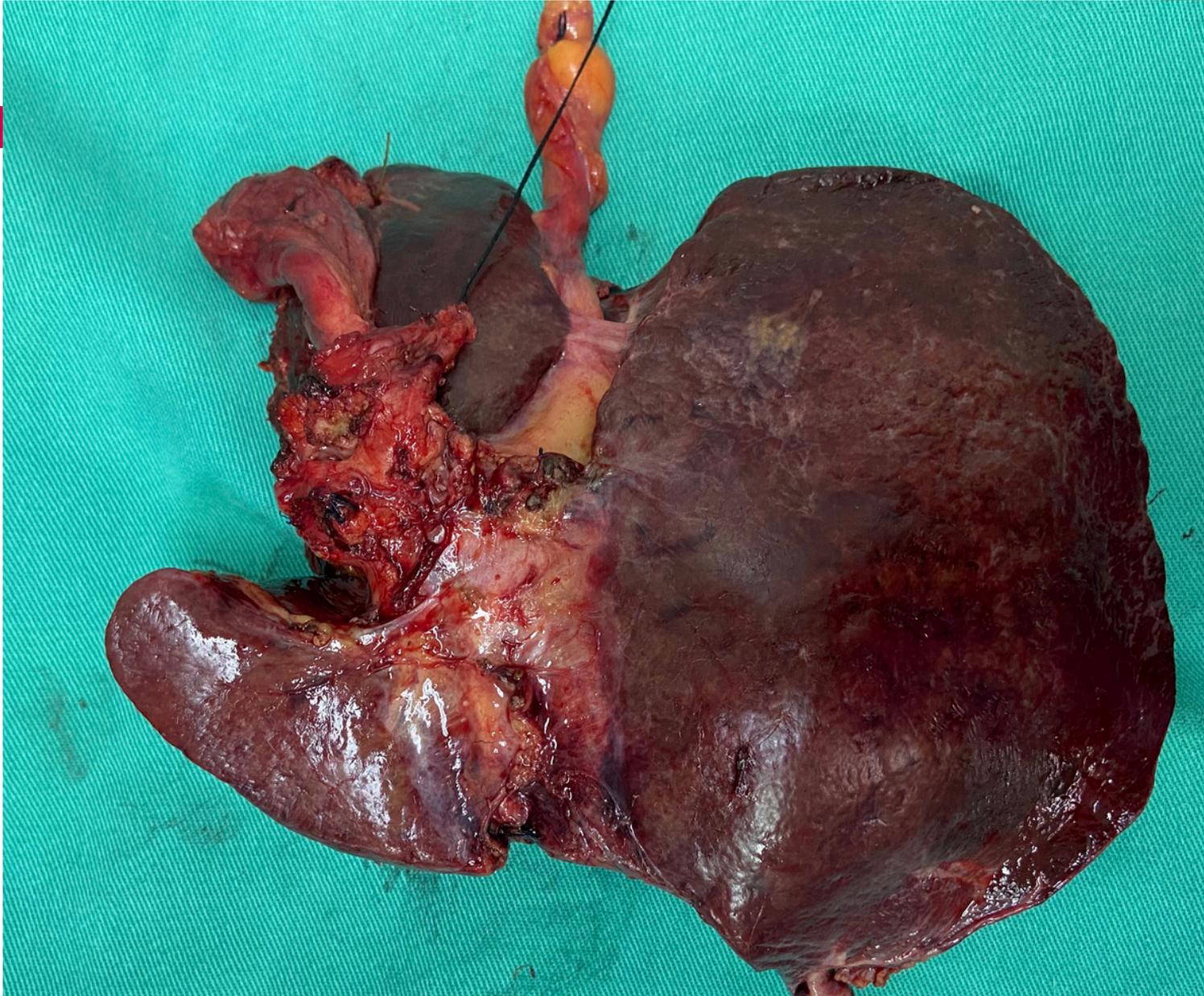
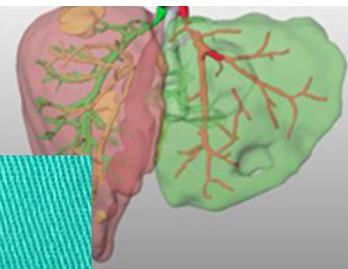
RADIAL MARGIN STATUS



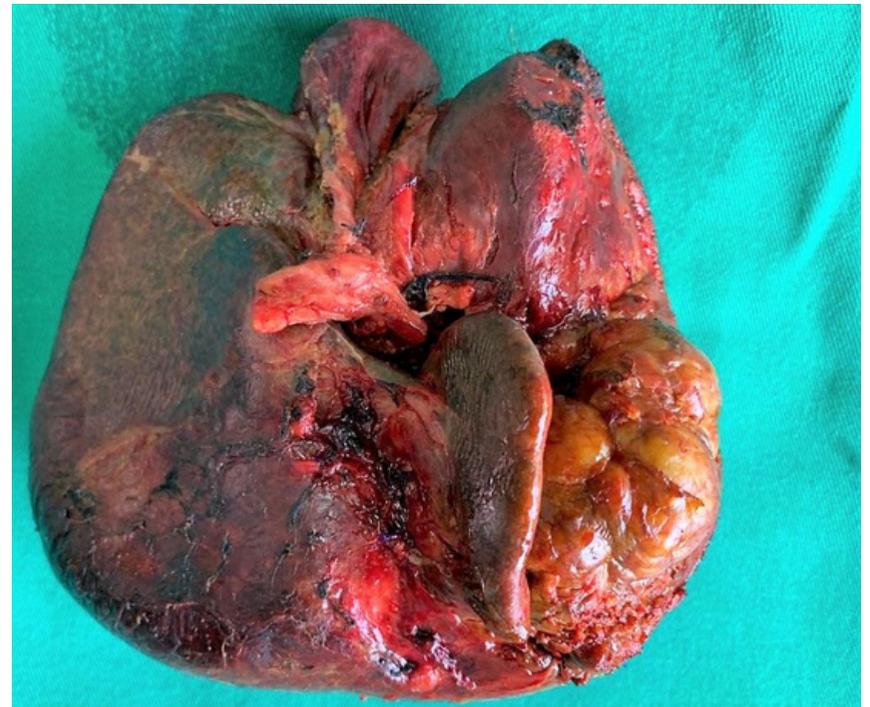
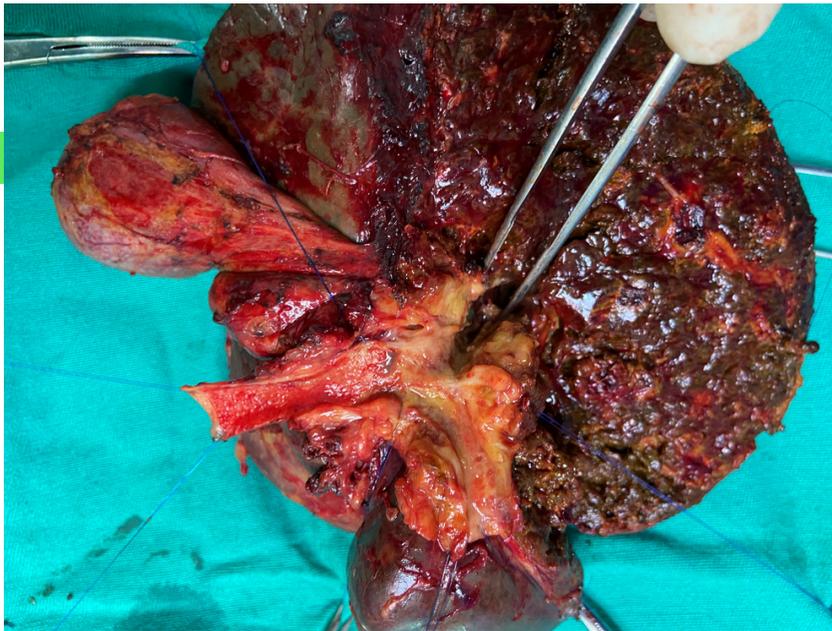
RADIAL MARGIN STATUS



CAUDATE LOBE

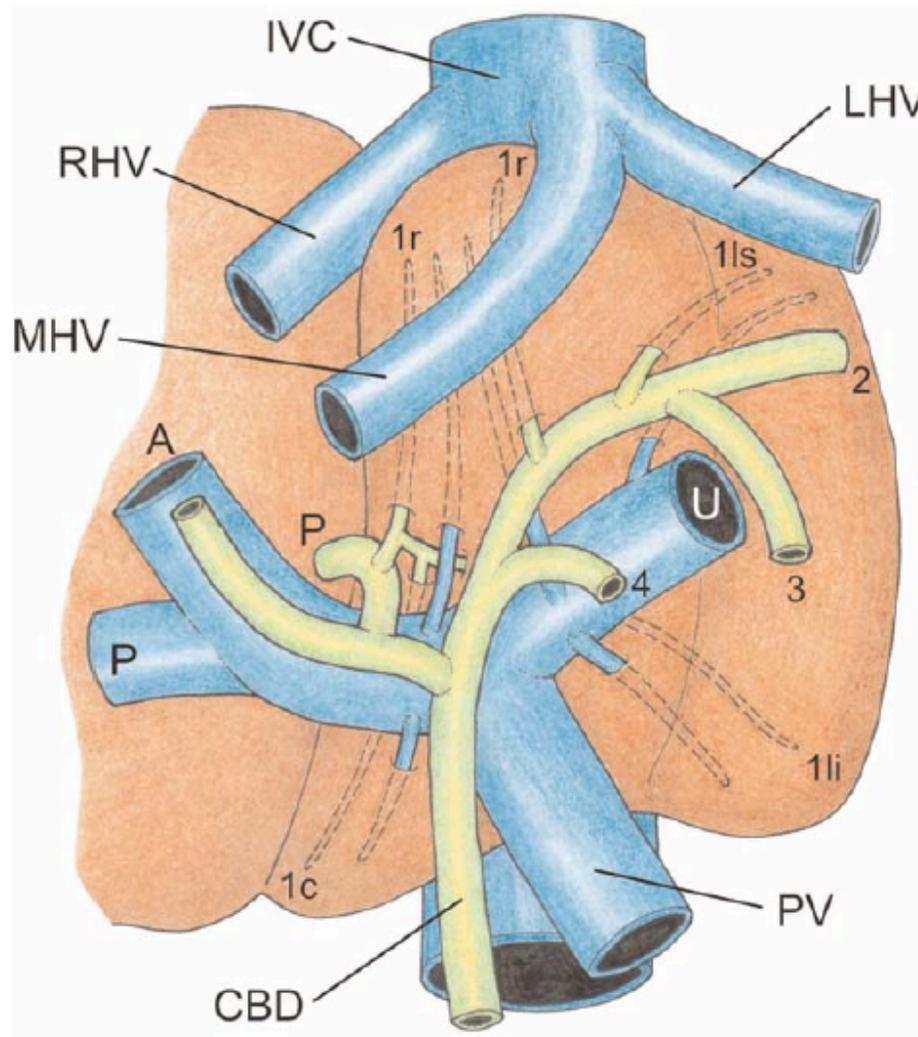


CAUDATE LOBE



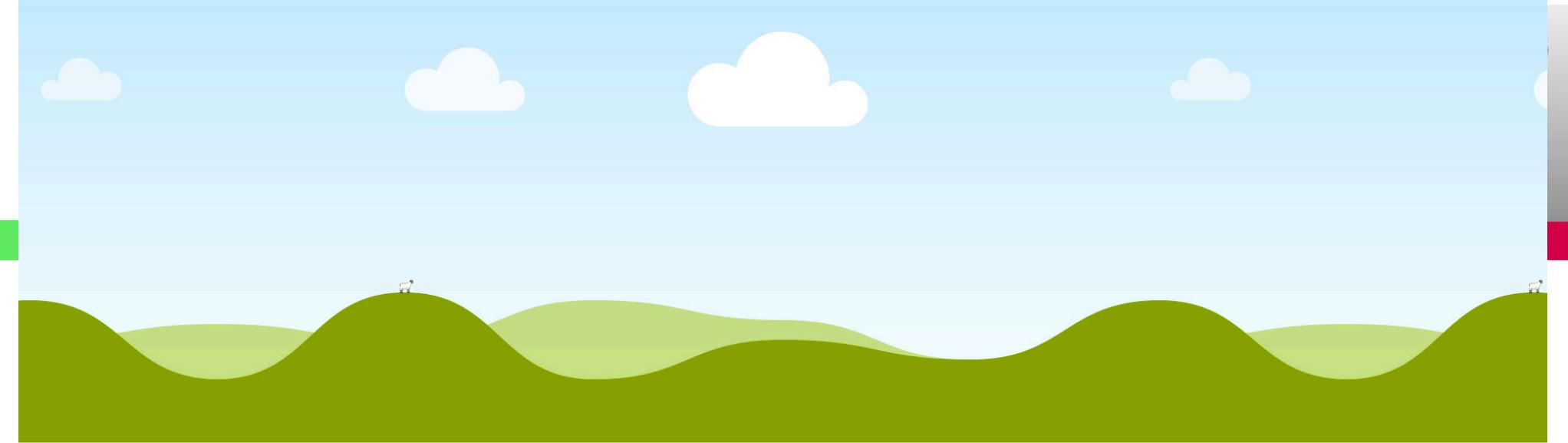
CAUDATE LOBE

Vertical extension into the caudate duct

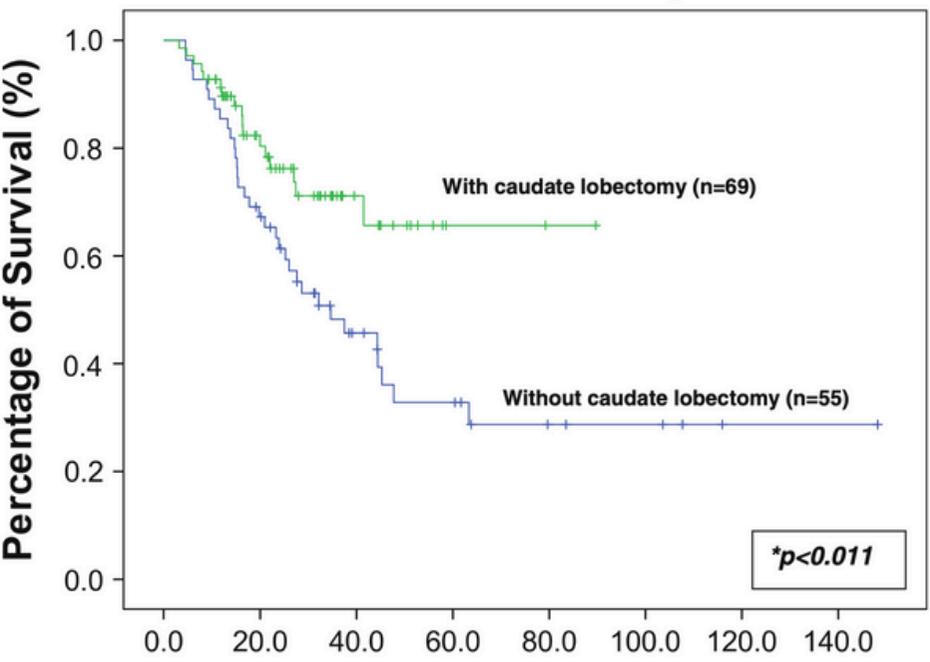


Lack of a strong muscular layer to restrict the tumor extension

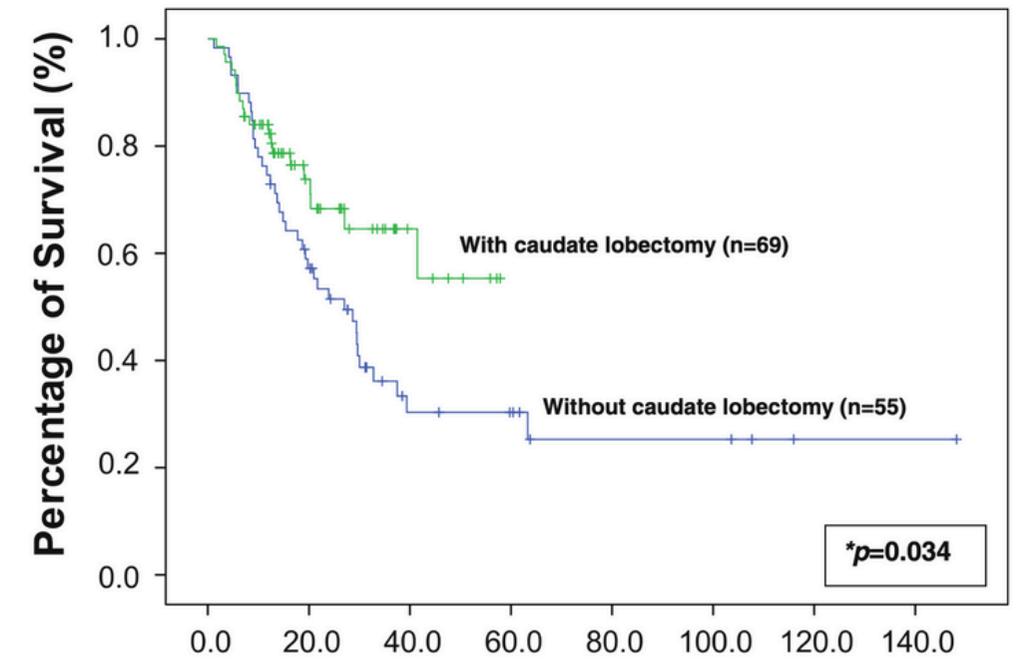
Caudate biliary ducts usually enter the main bile duct at the confluence posteriorly



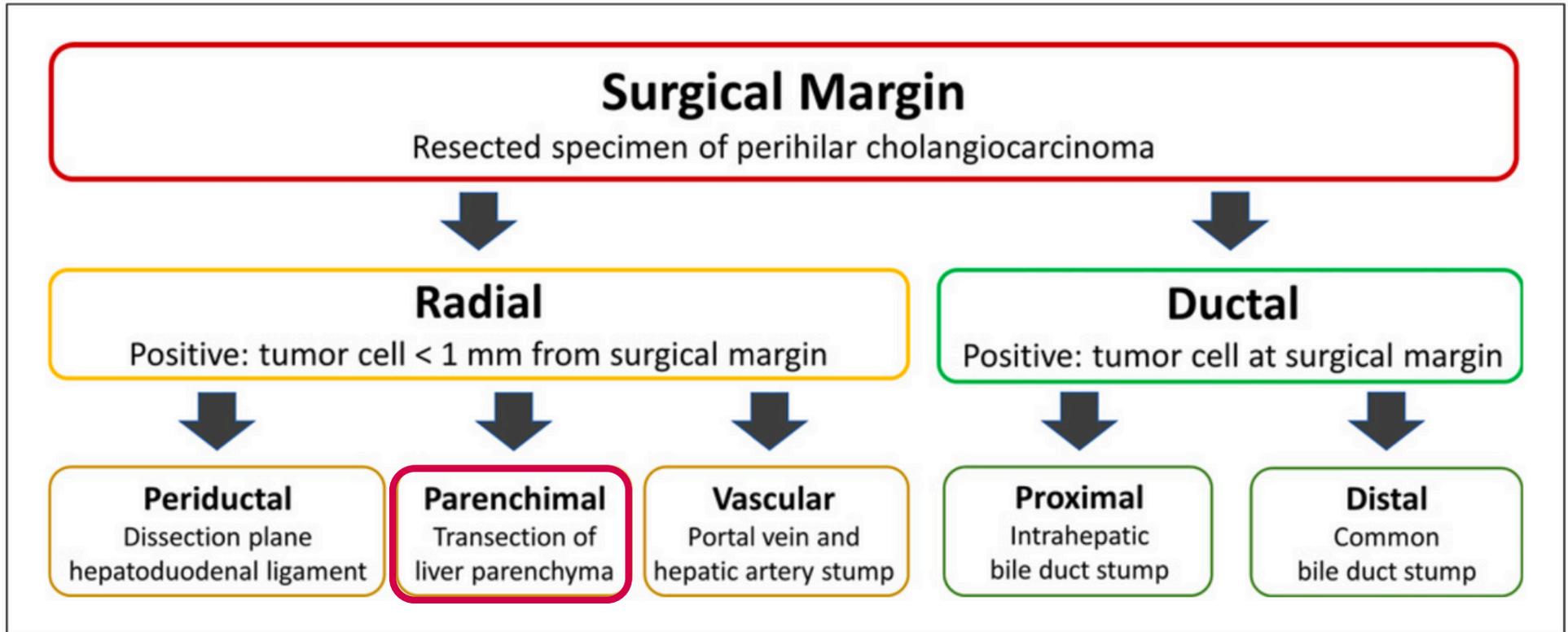
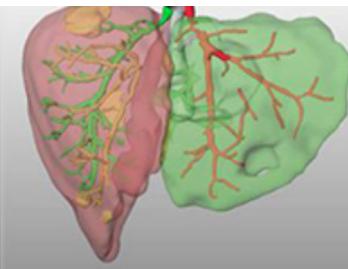
(a) Overall Survival with and without caudate lobectomy



(b) DFS comparing between patients with and without caudate lobectomy

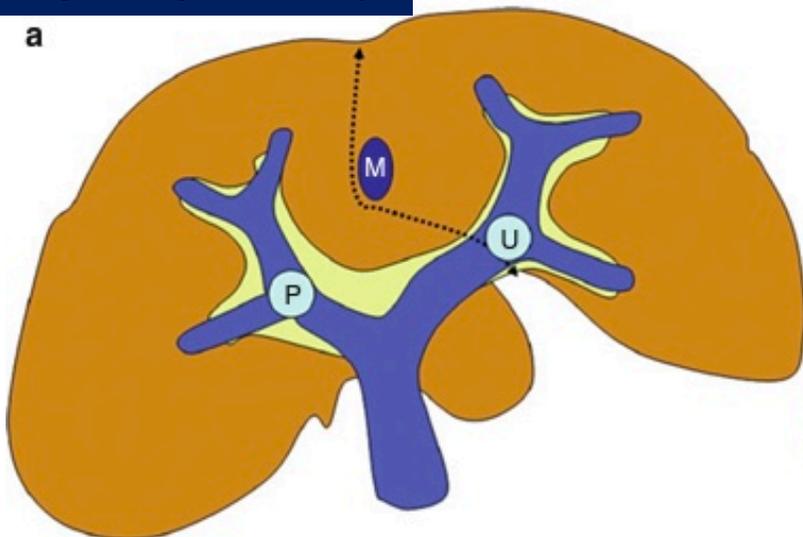


RADIAL MARGIN STATUS

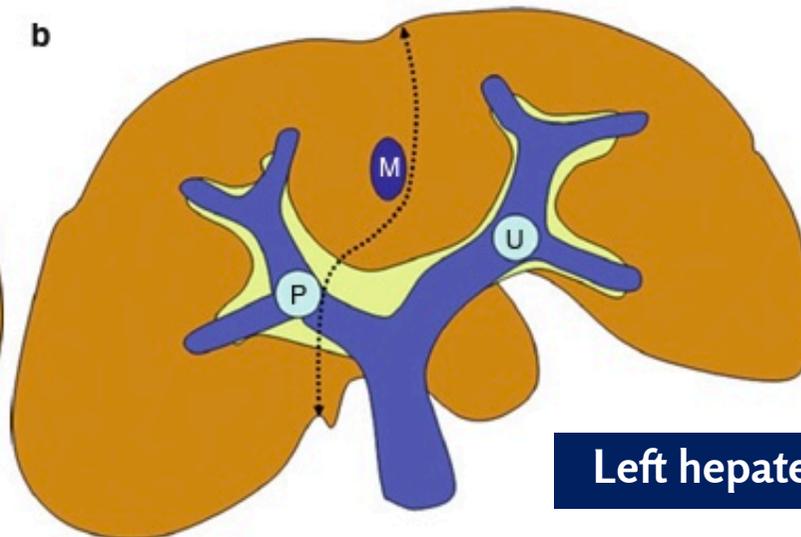


Right hepatectomy

a

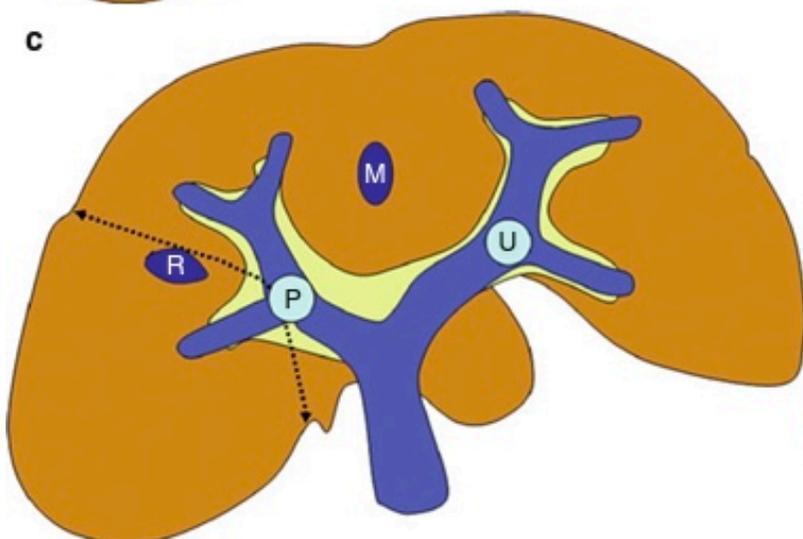


b



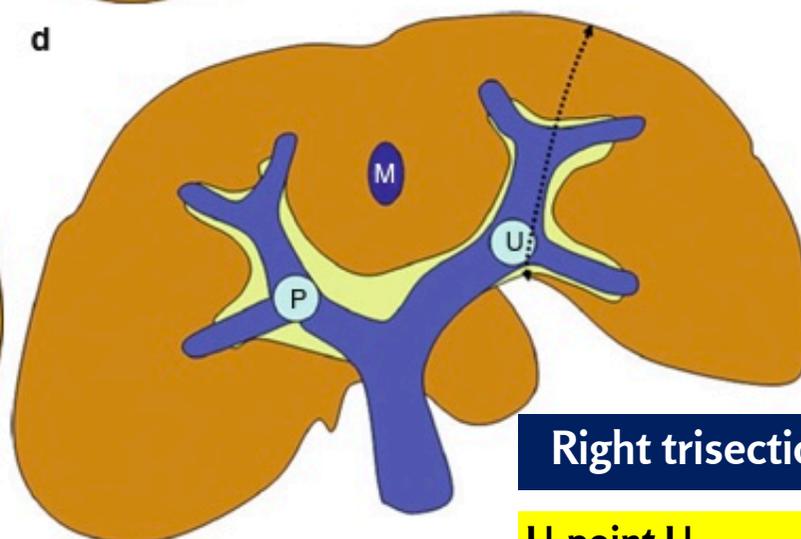
Left hepatectomy

c



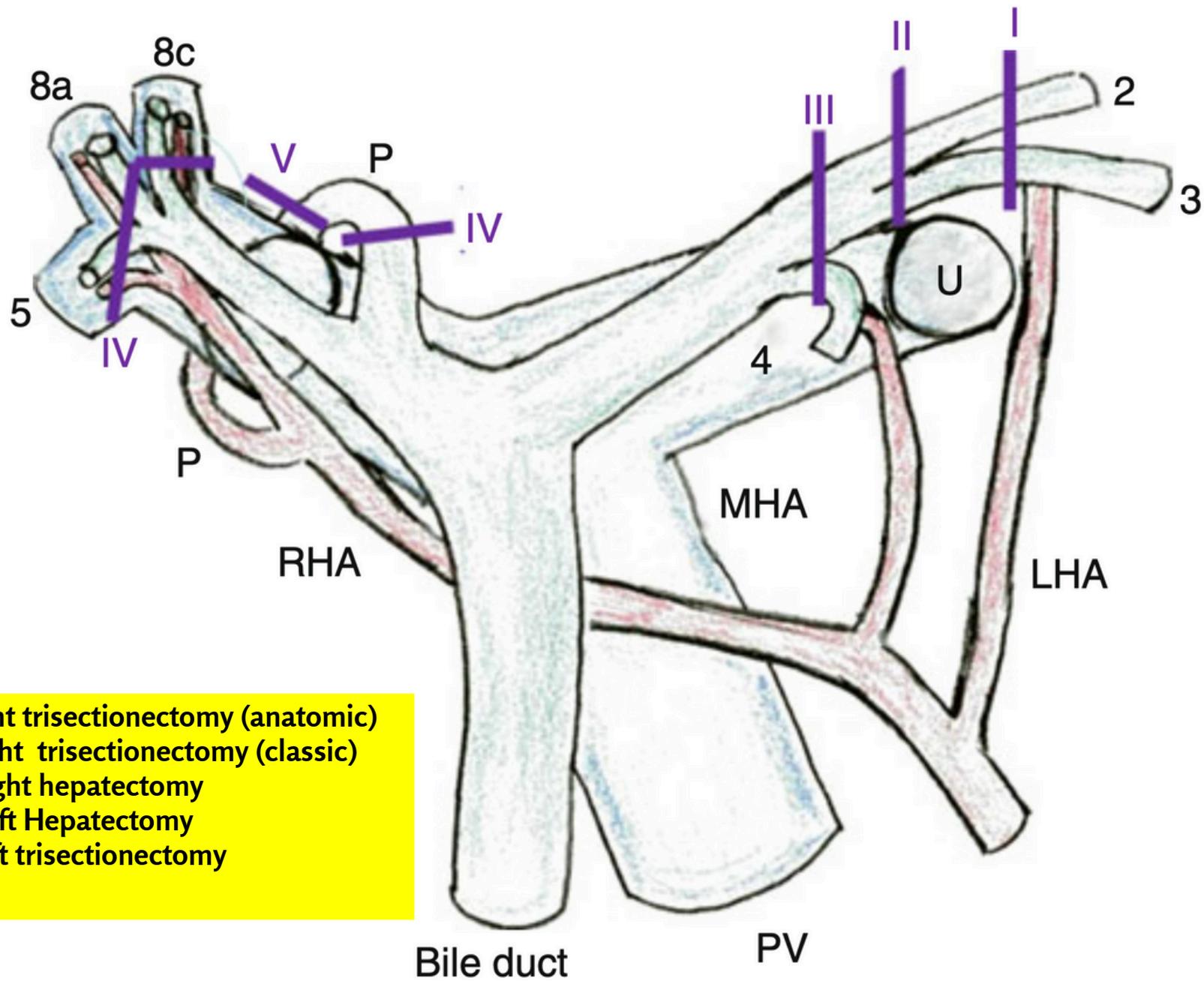
Left trisectionectomy

d



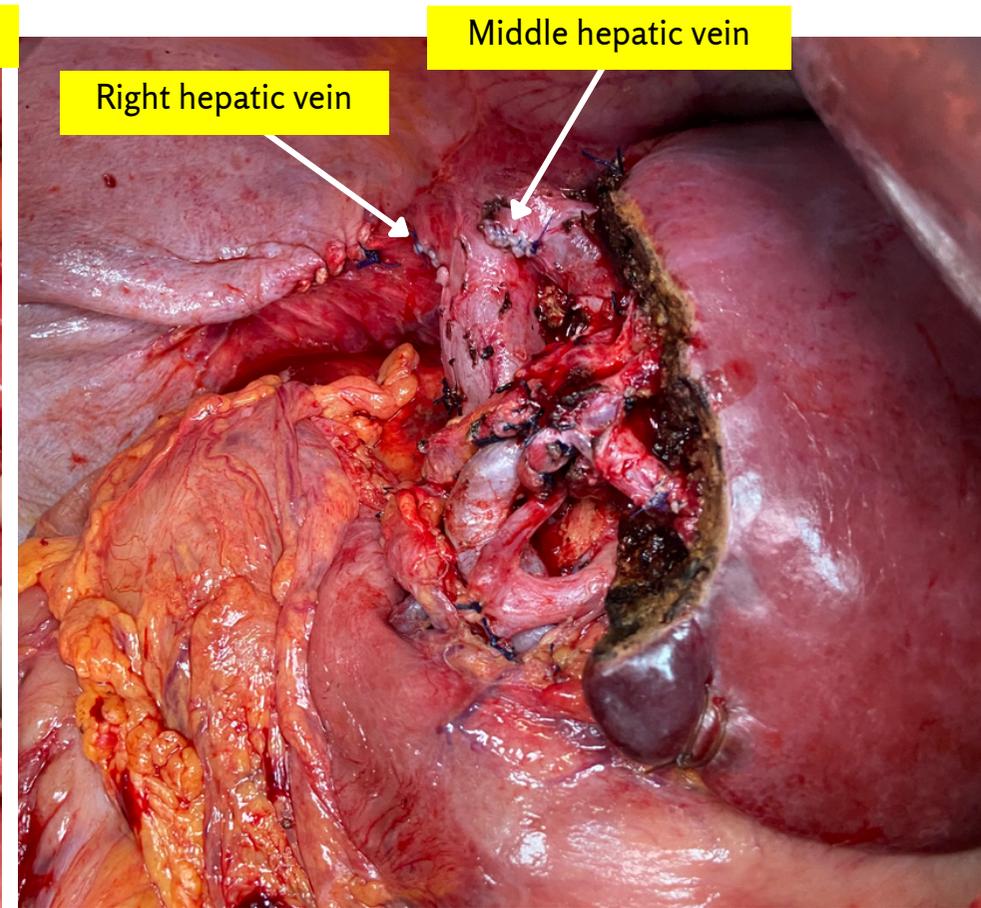
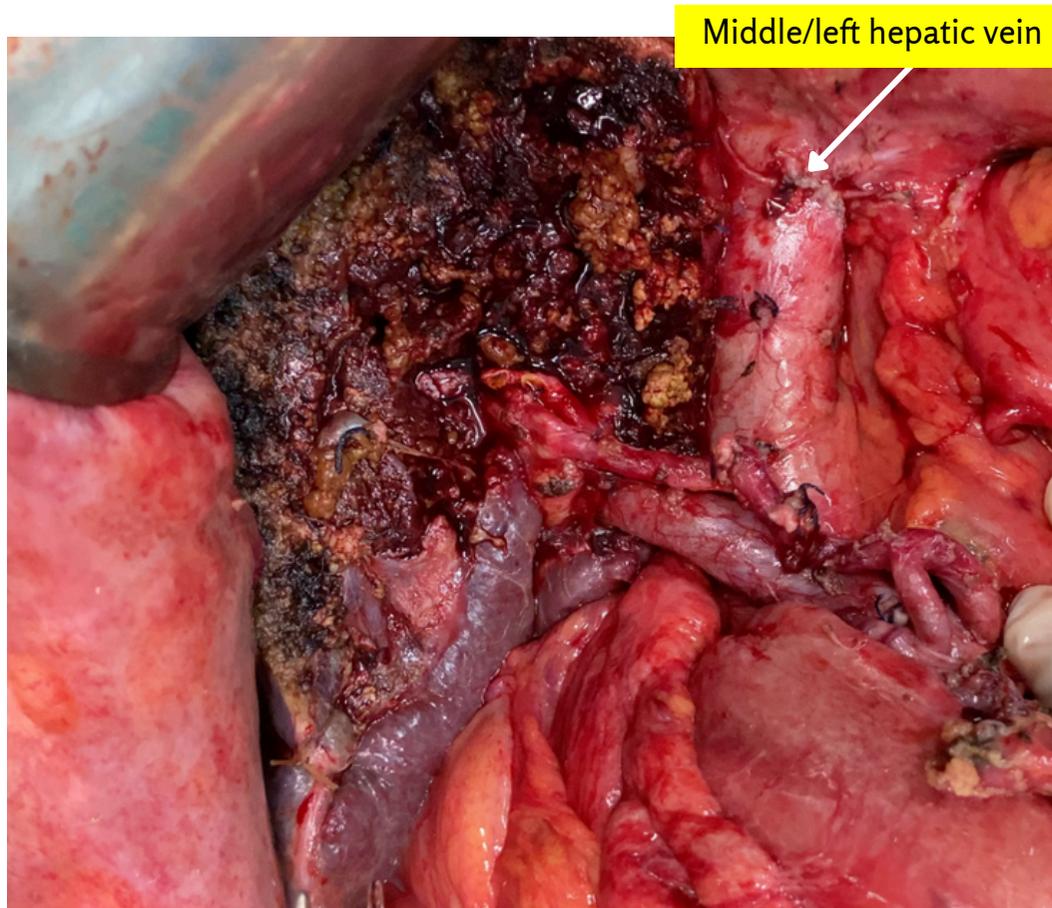
Right trisectionectomy

U-point U
P-point P
Meddle Hepatic Vein M
Right Hepatic Vein R



- I- Right trisectionectomy (anatomic)
- II- Right trisectionectomy (classic)
- III- Right hepatectomy
- IV- Left Hepatectomy
- V- Left trisectionectomy

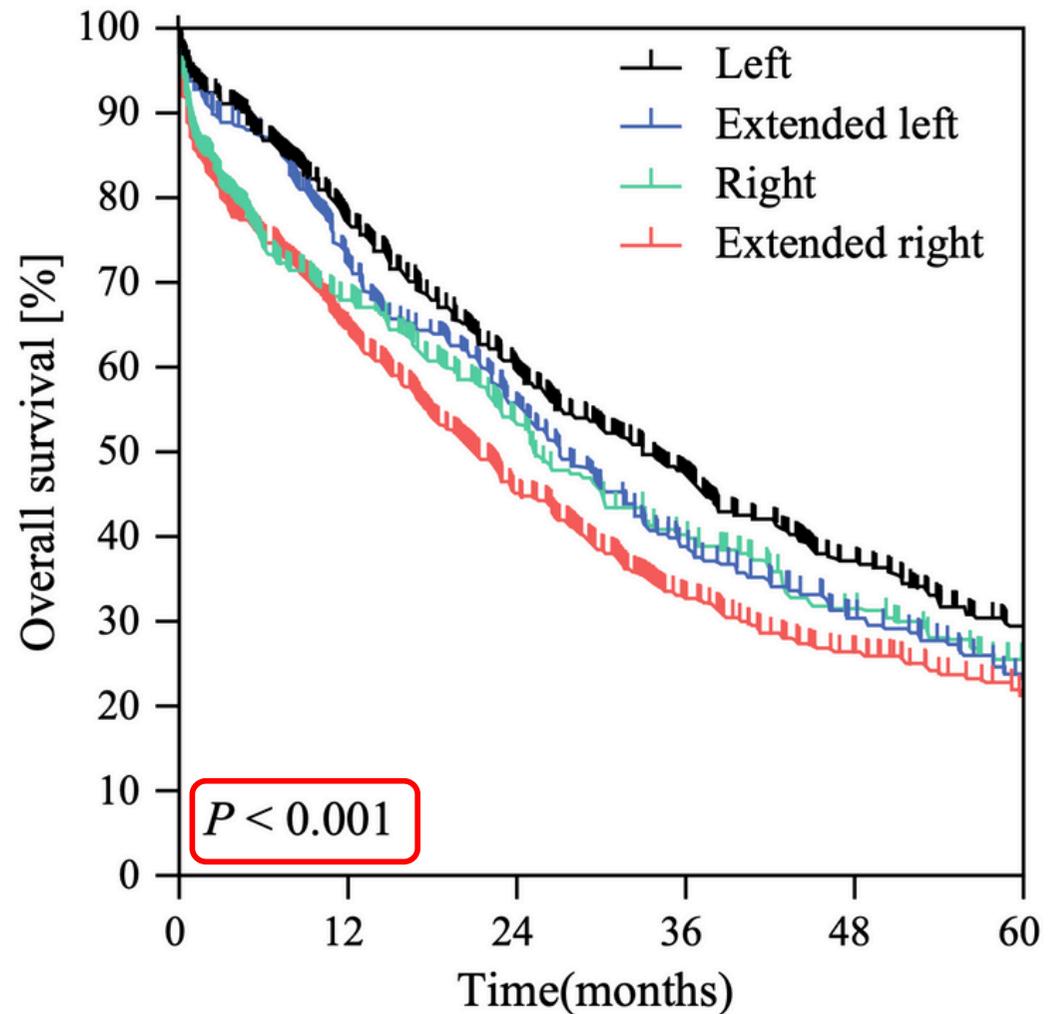
TYPE IV CHOLANGIOCARCINOMA



LEFT TRISECTIONECTOMY OR RIGHT



Higher Postoperative Mortality and Inferior Survival After Right-Sided Liver Resection for Perihilar Cholangiocarcinoma: Left-Sided Resection is Preferred When Possible



RIGHT OR LEFT

RIGHT

Postoperative liver failure

Extrahepatic bile duct on the left side is longer

Small transection plane on the liver side

LEFT

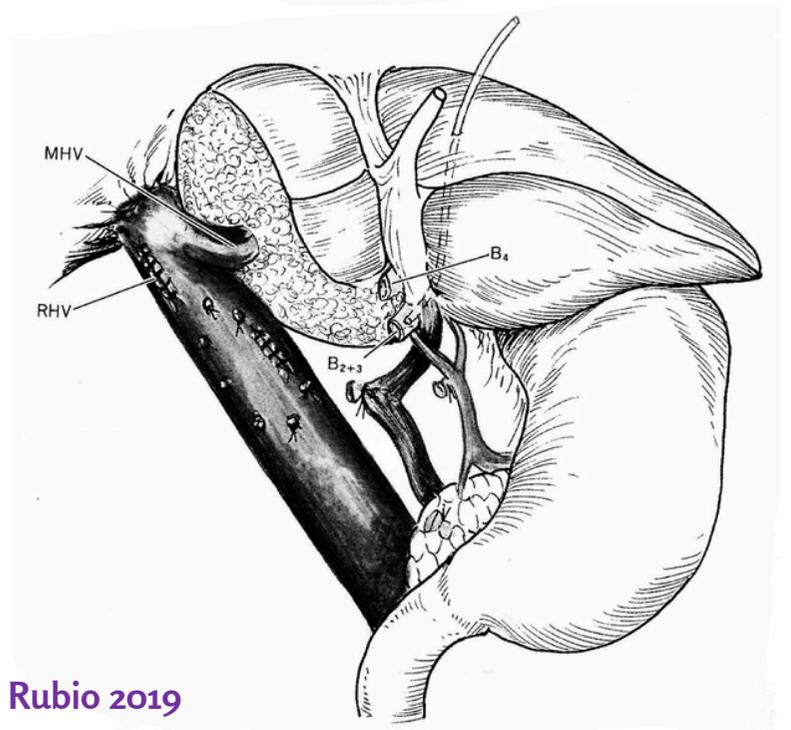
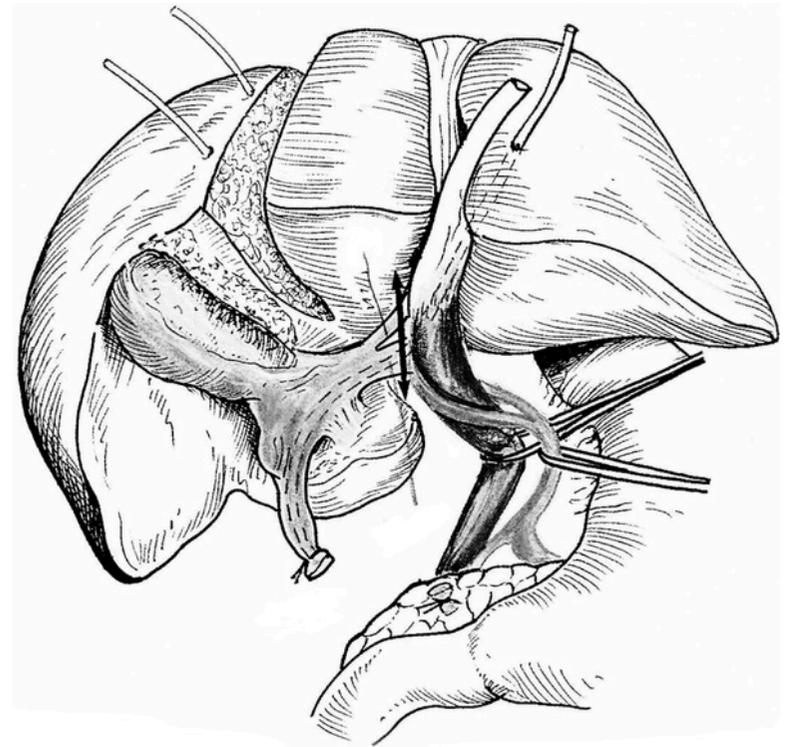
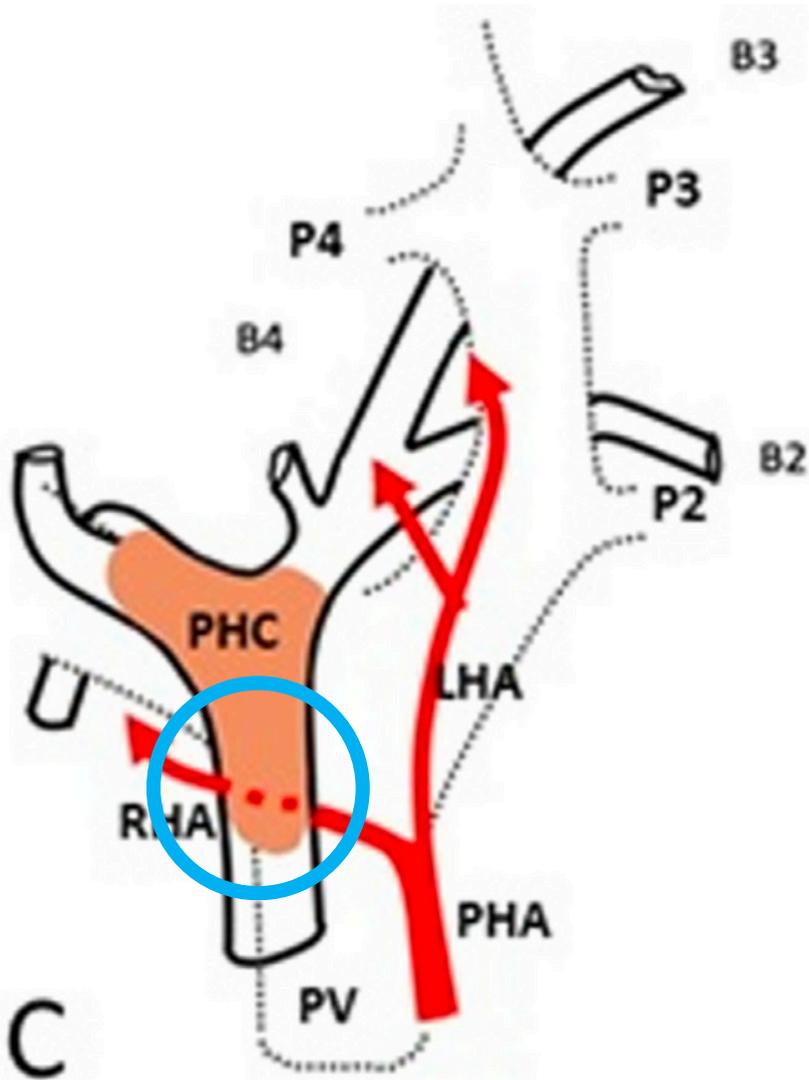
Recurrence

RHA has to be anastomosed (often involved)

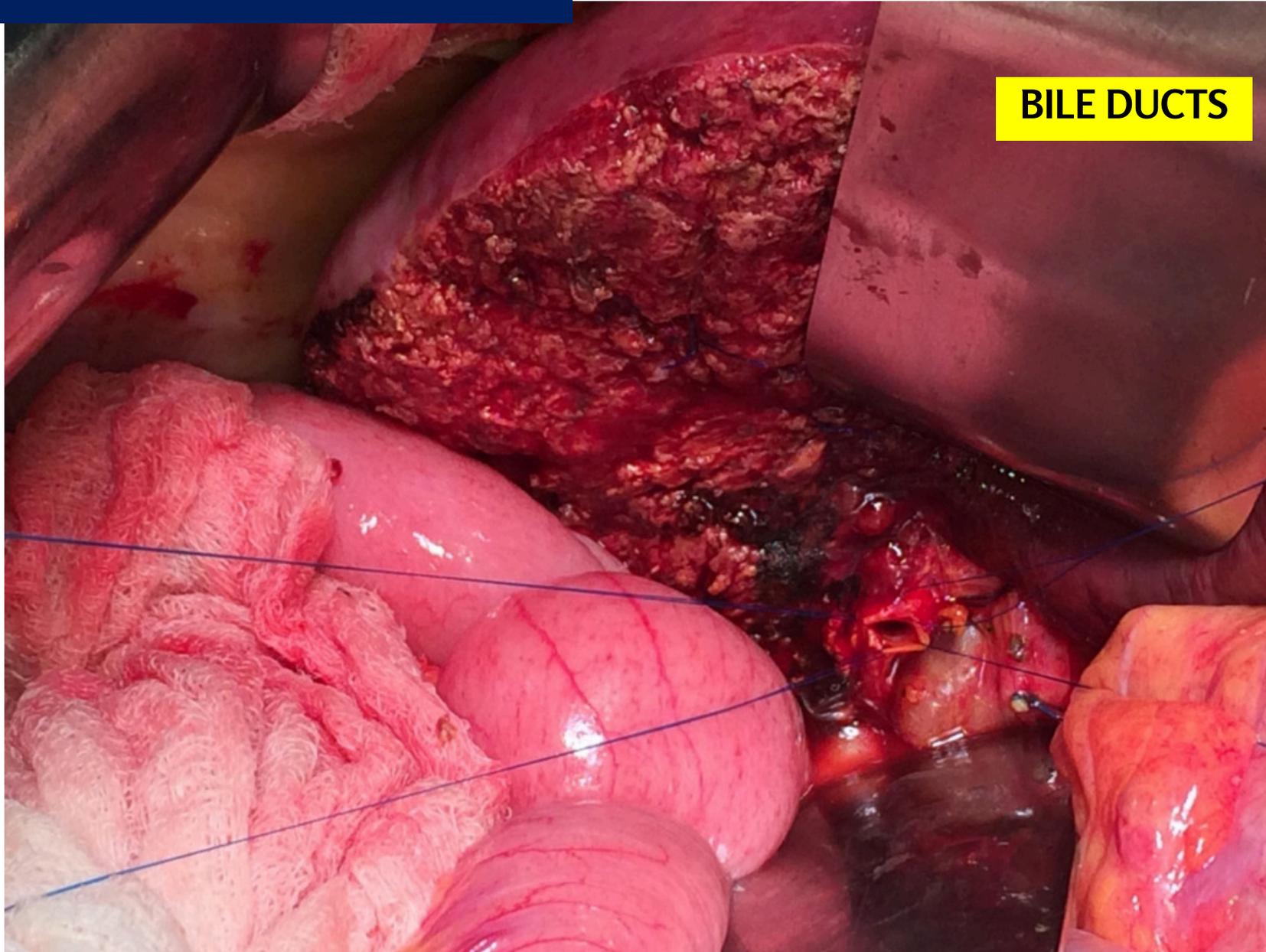
More bile ducts to be reconstructed

Higher likelihood of sufficient FLR

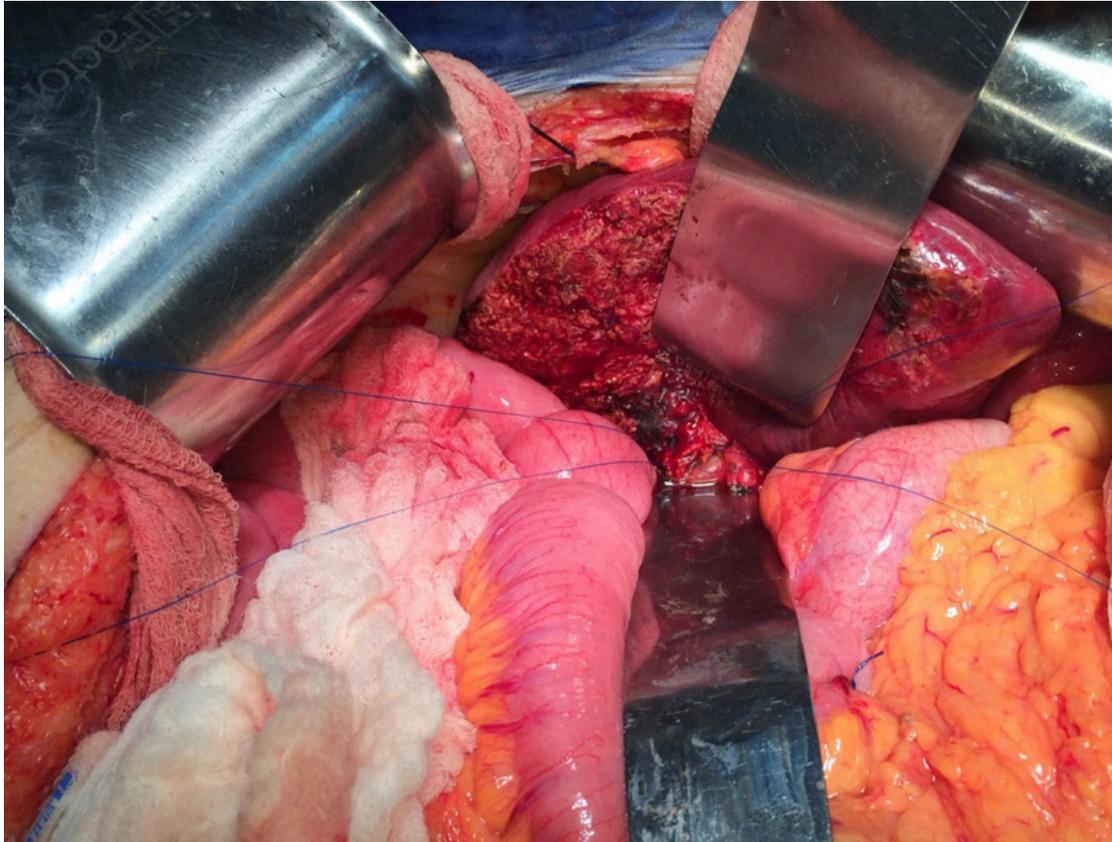
RIGHT HEPATECTOMY



RIGHT HEPATECTOMY



RIGHT HEPATECTOMY

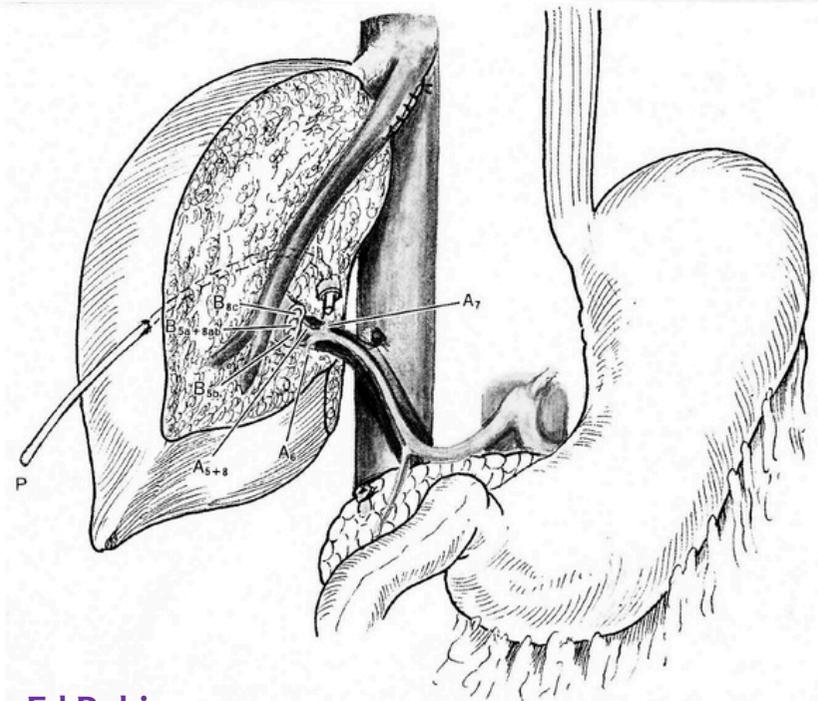
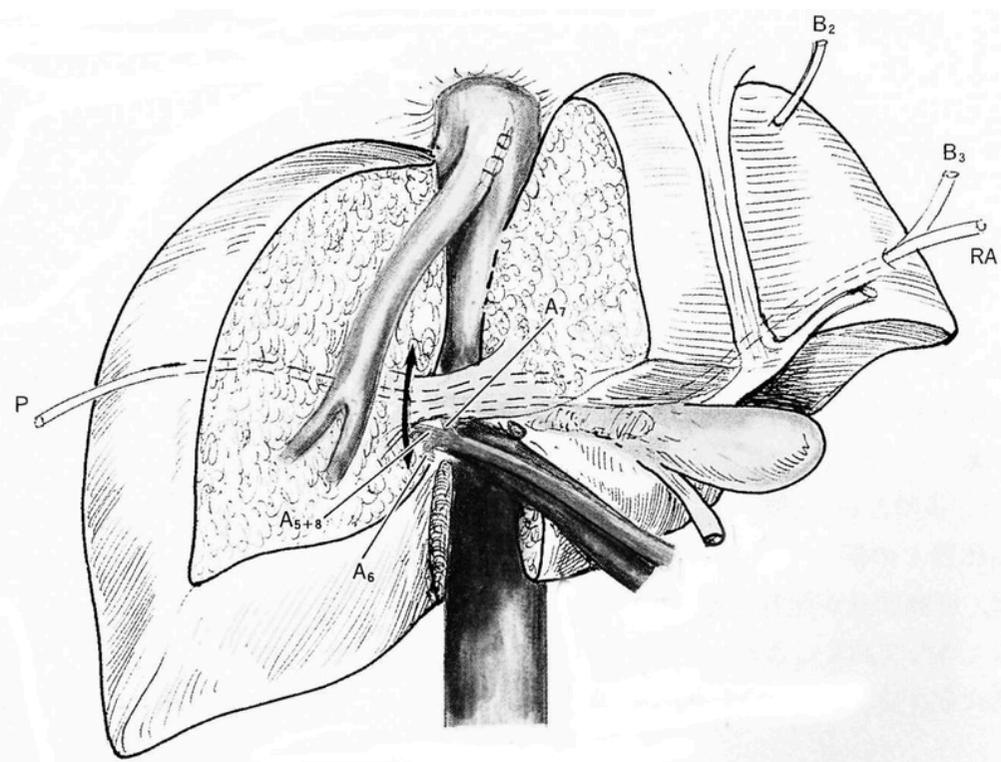
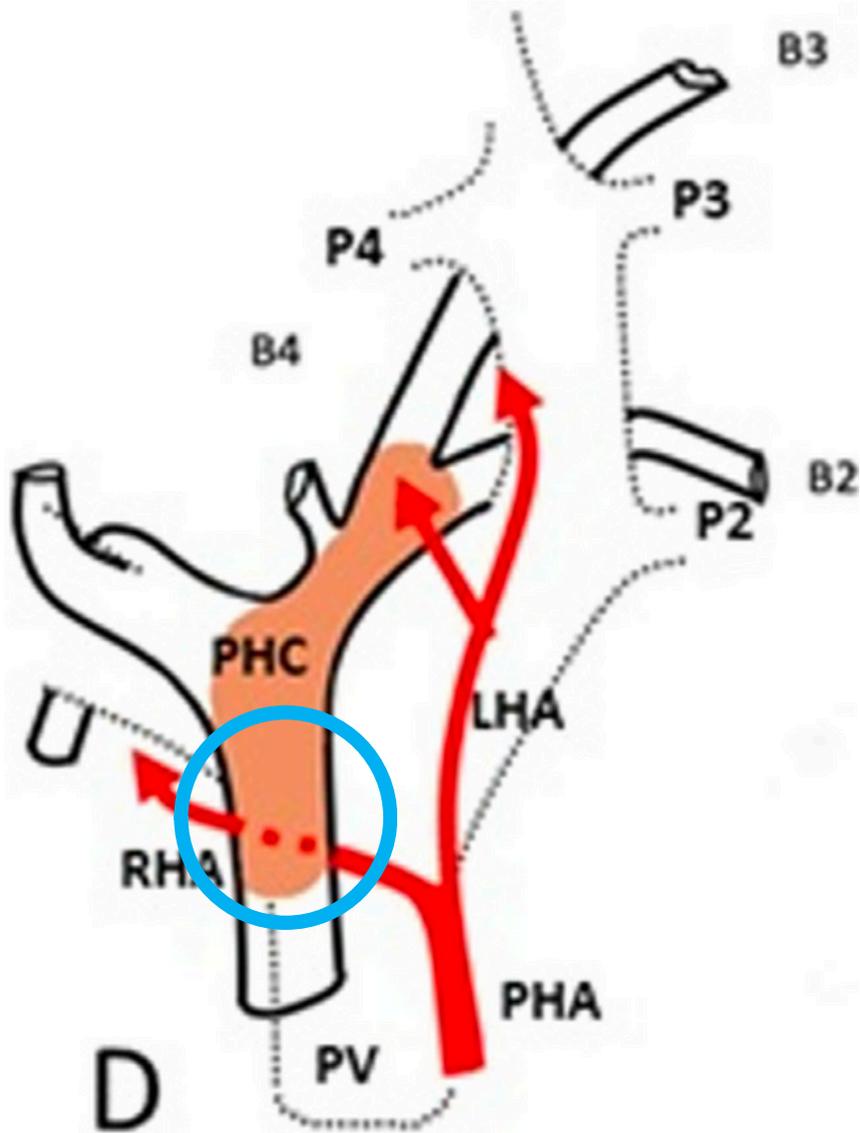


BILE DUCTS

Caudate

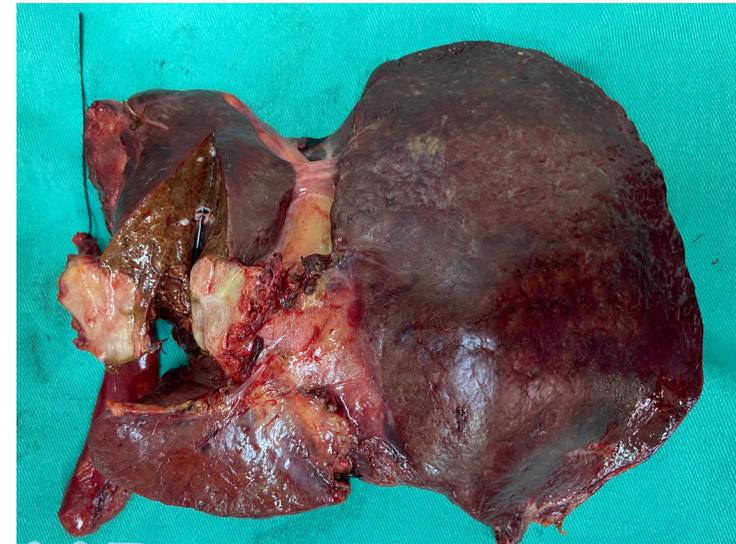
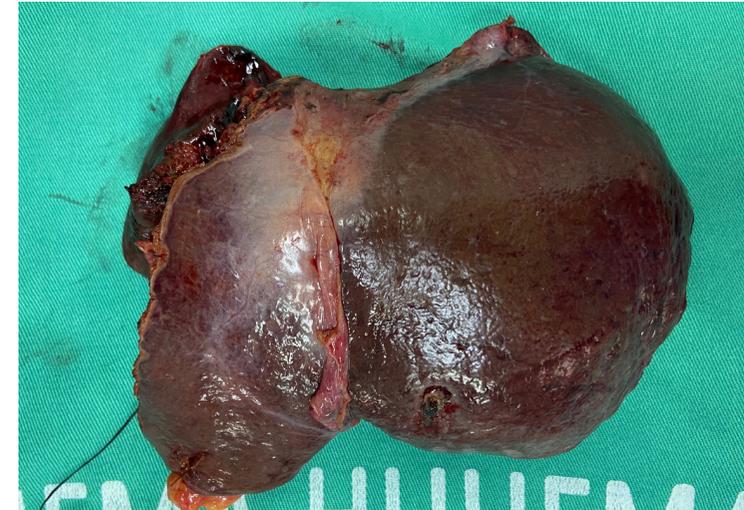
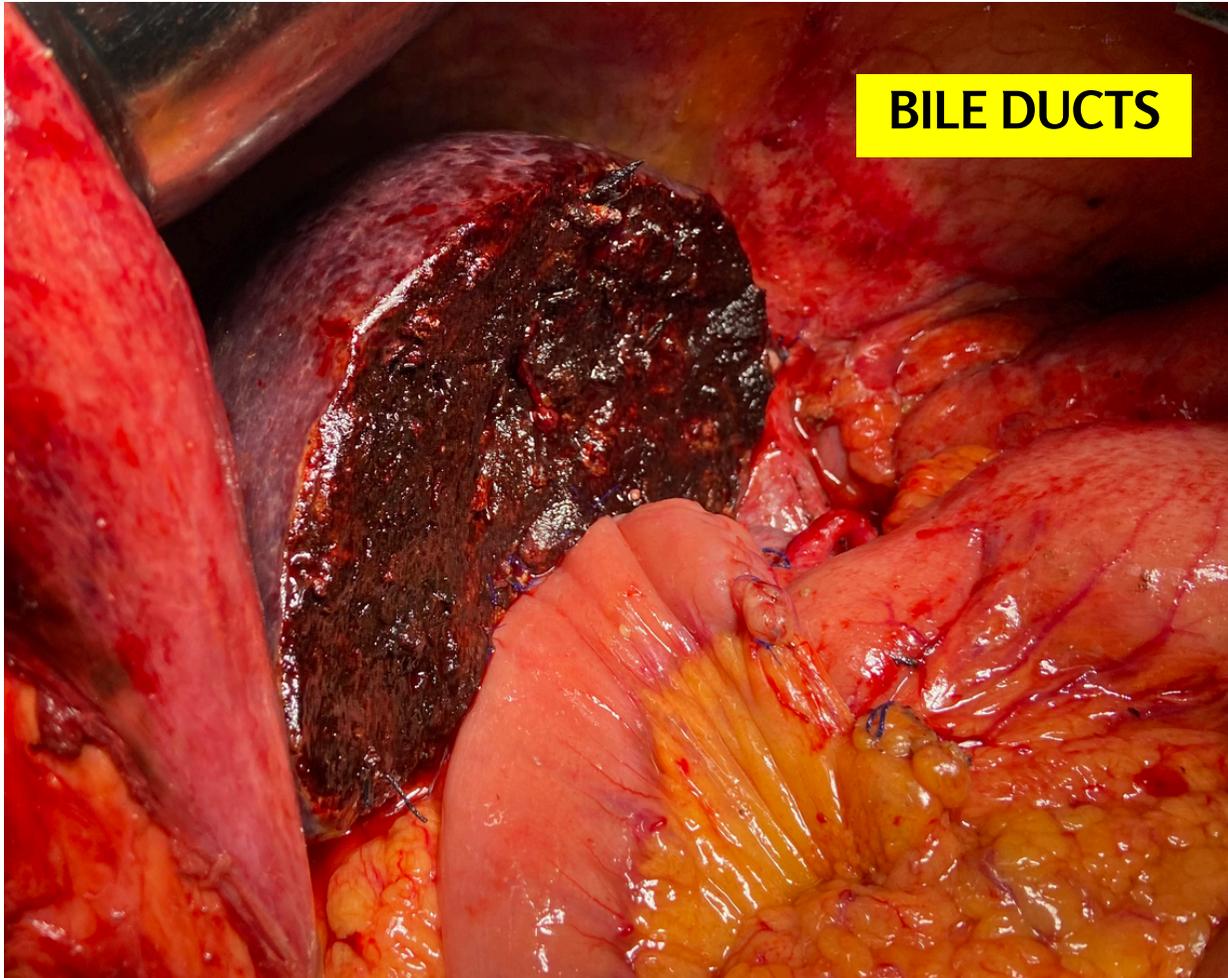


LEFT HEPATECTOMY



LEFT HEPATECTOMY

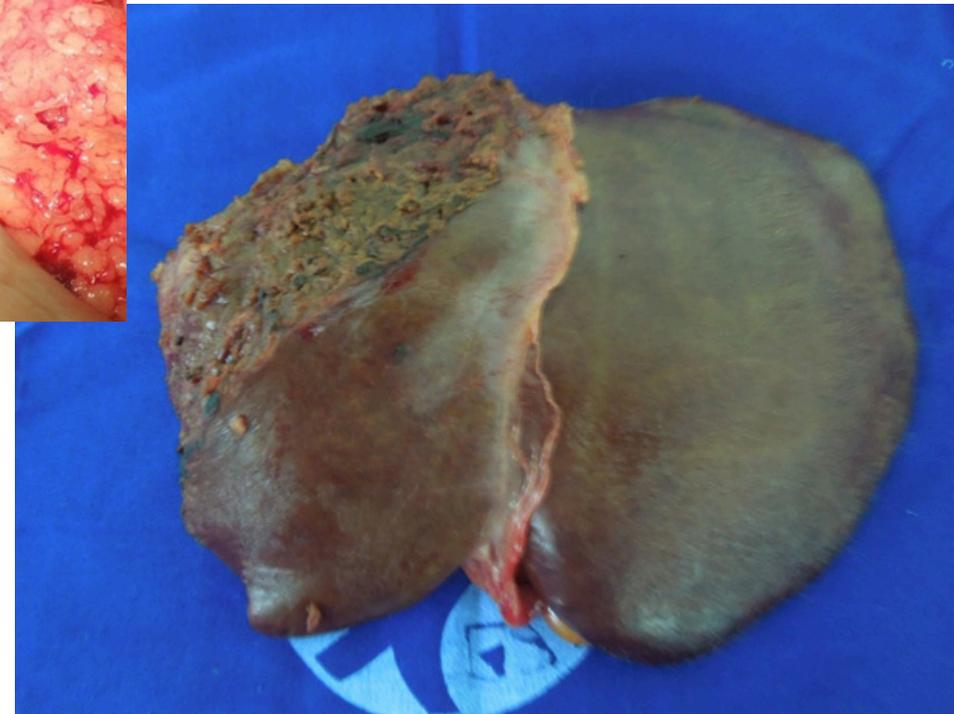
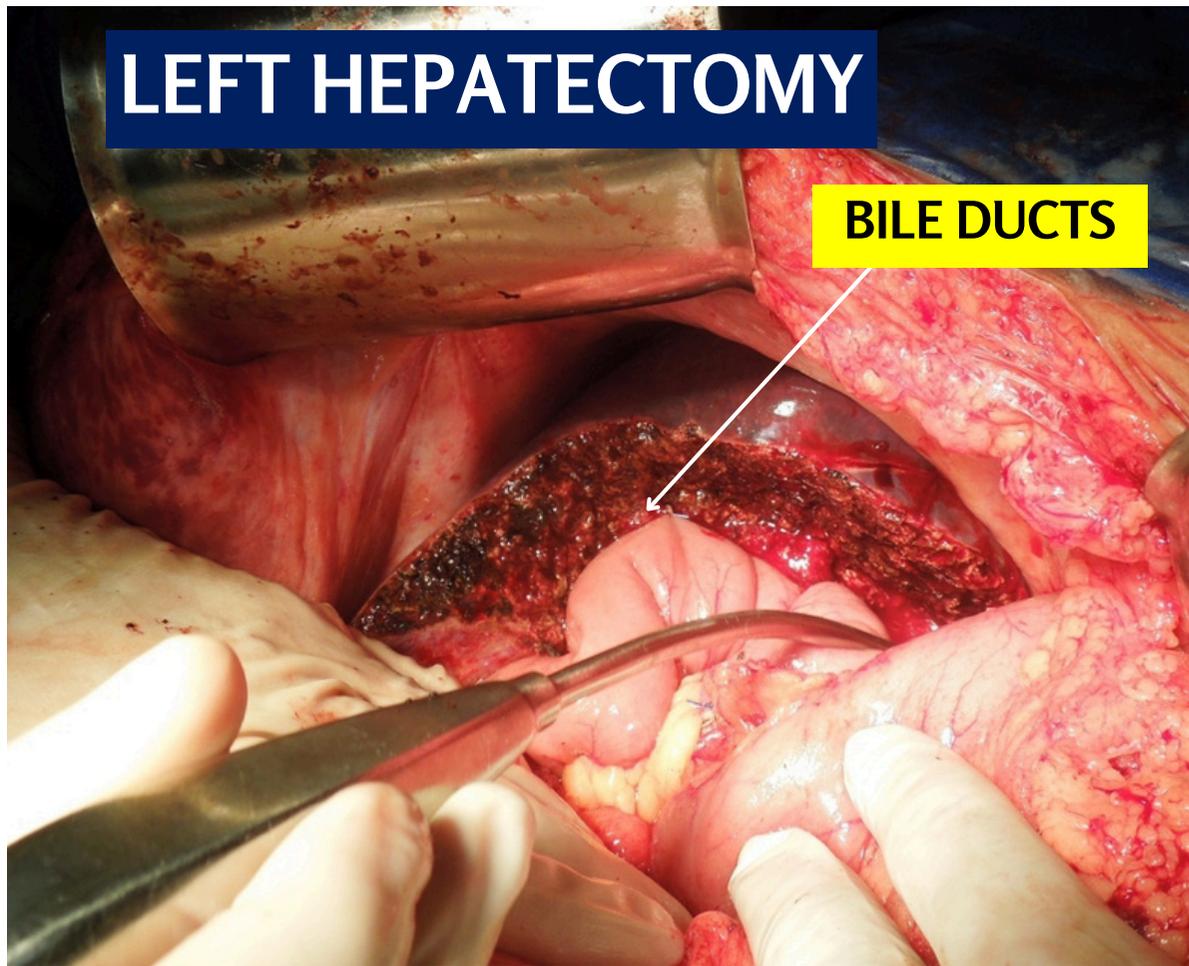
Caudate

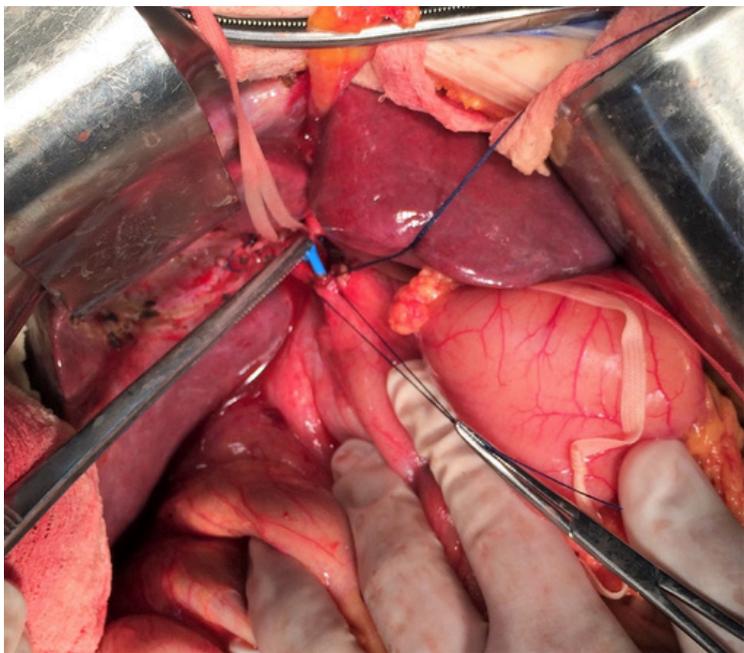


LEFT HEPATECTOMY

BILE DUCTS

Caudate

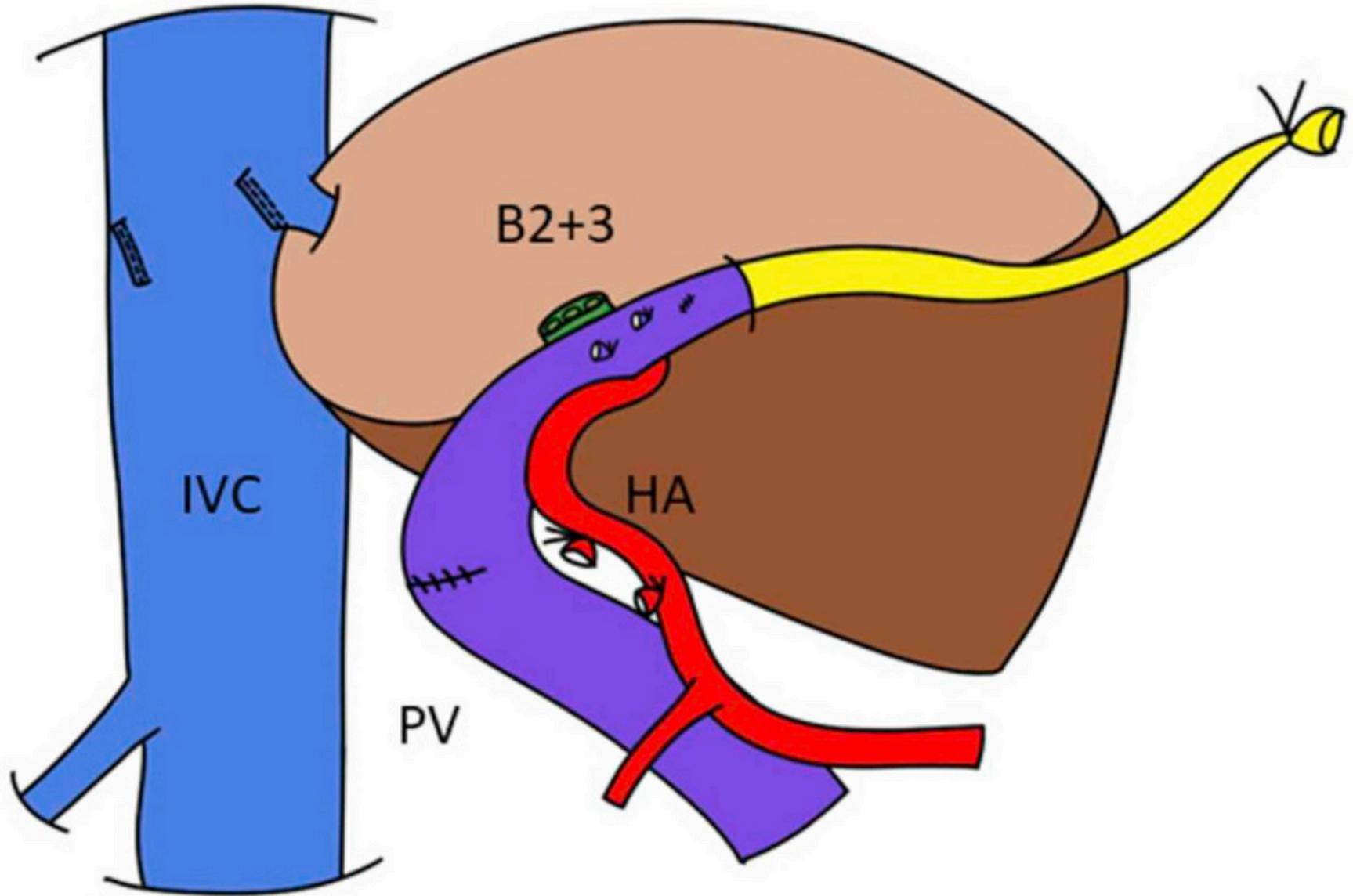




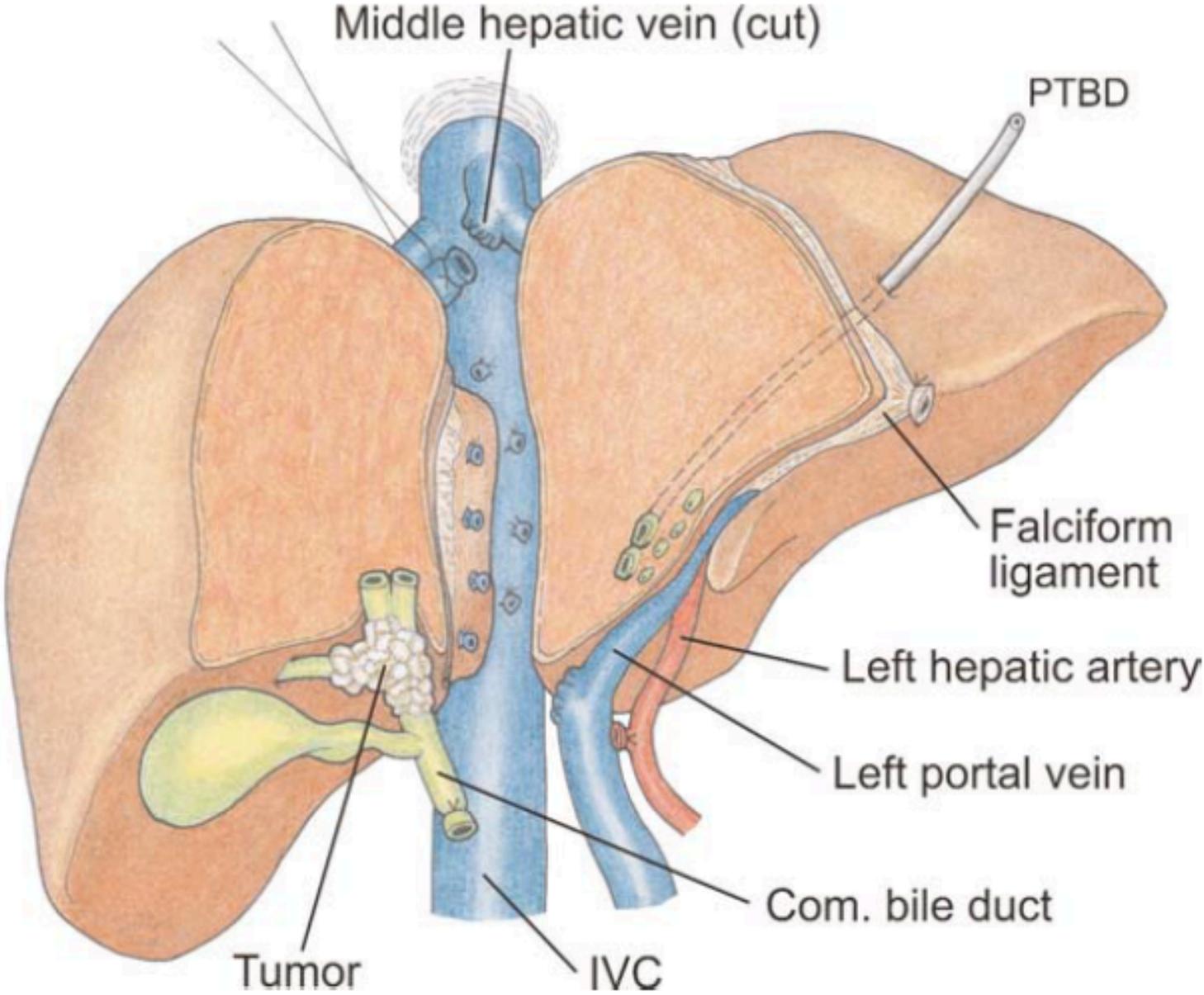
LEFT HEPATECTOMY



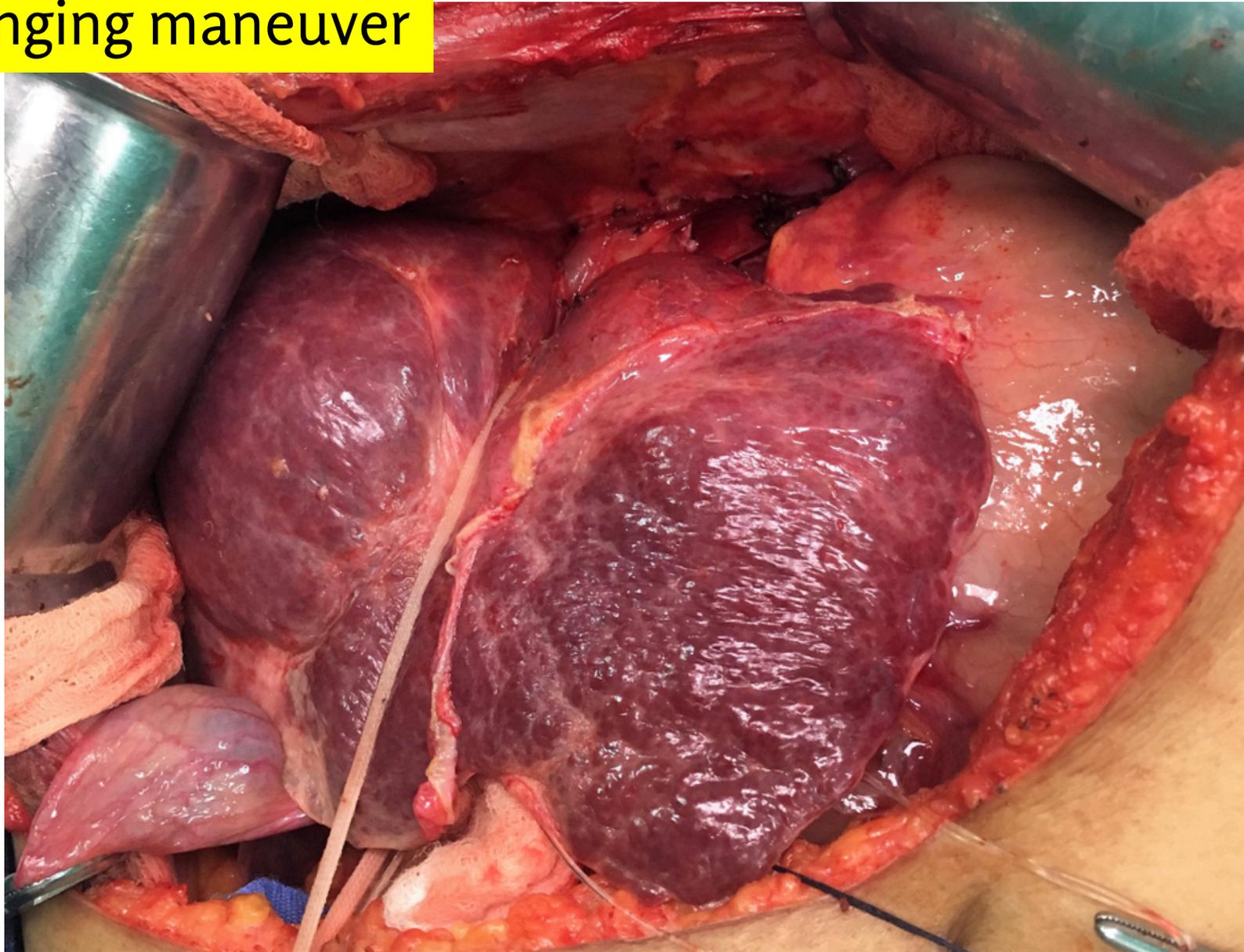
EXTENDED RIGHT



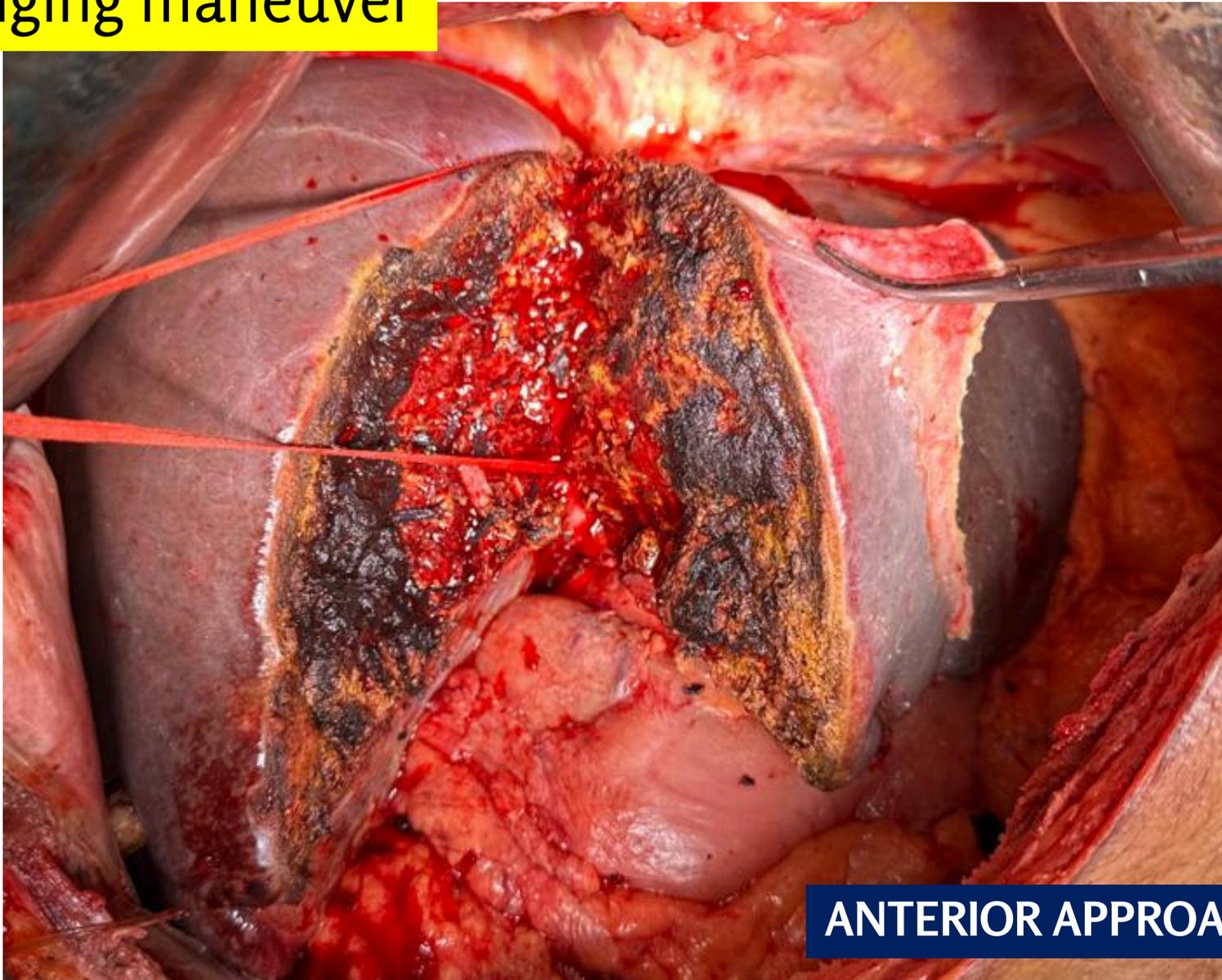
EXTENDED RIGHT HEPATECTOMY



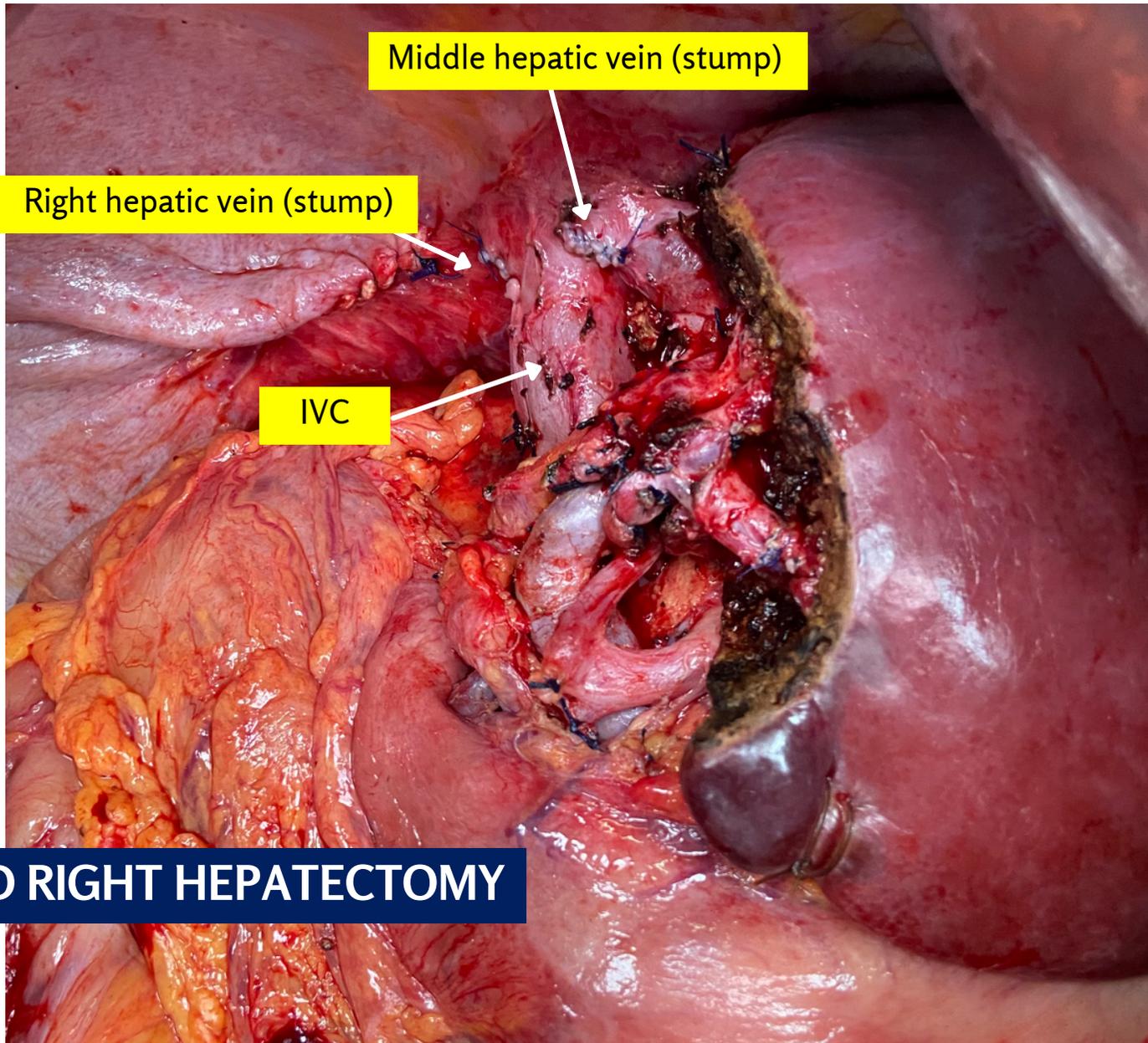
Hanging maneuver



Hanging maneuver

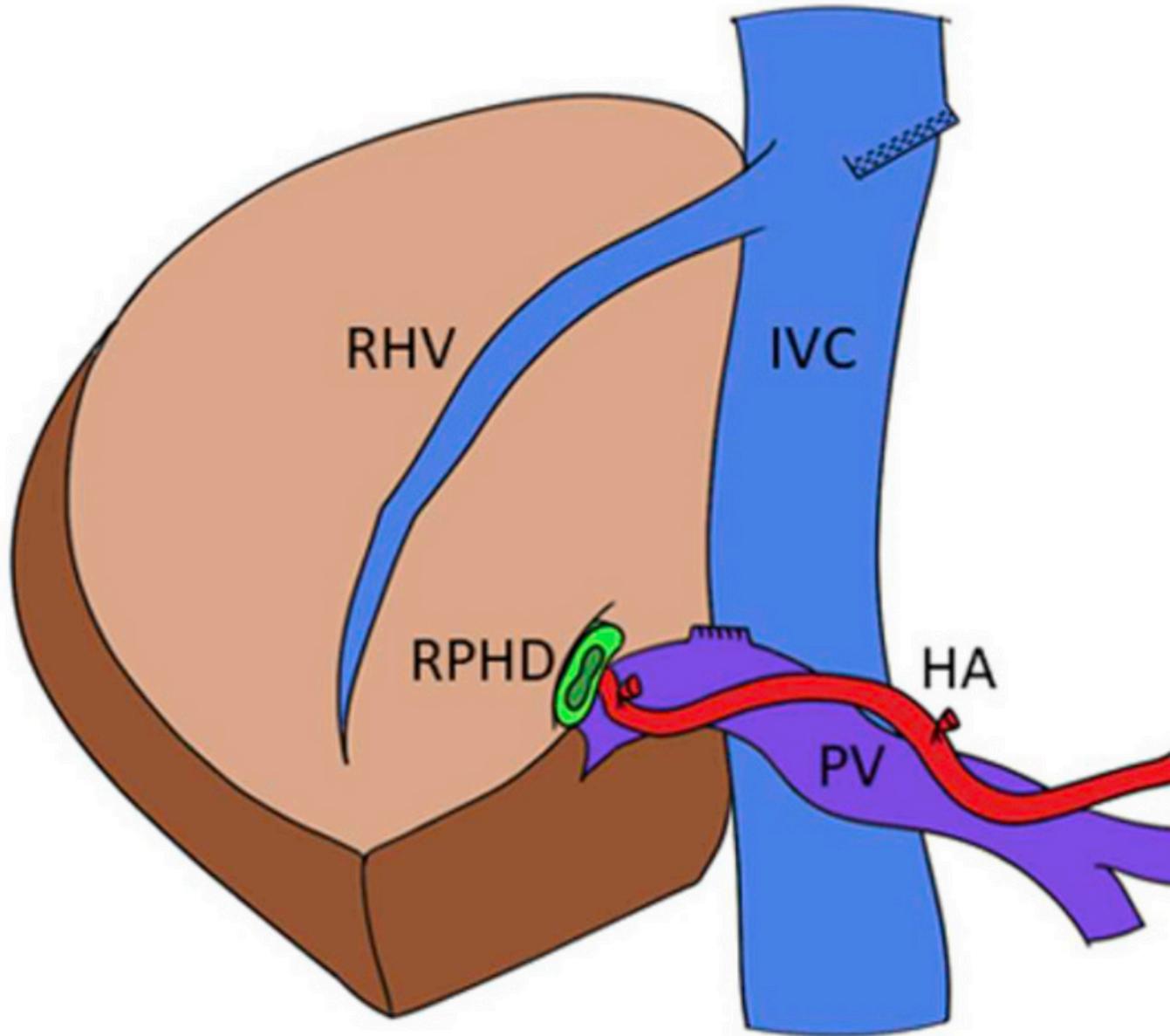


ANTERIOR APPROACH

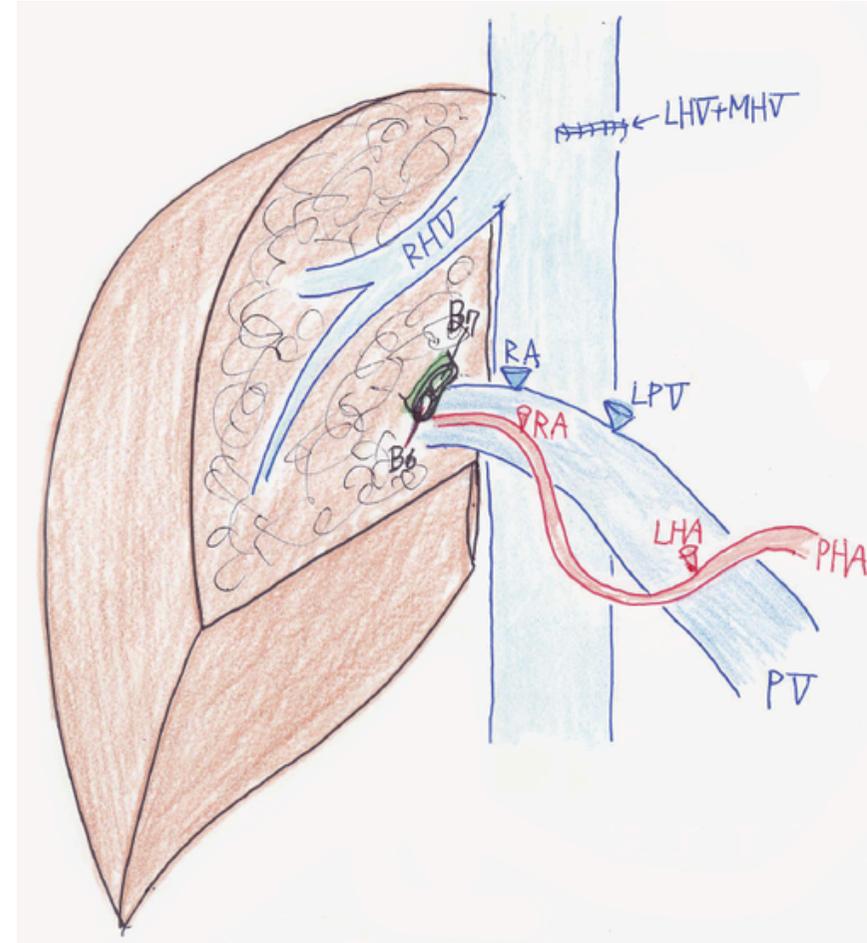
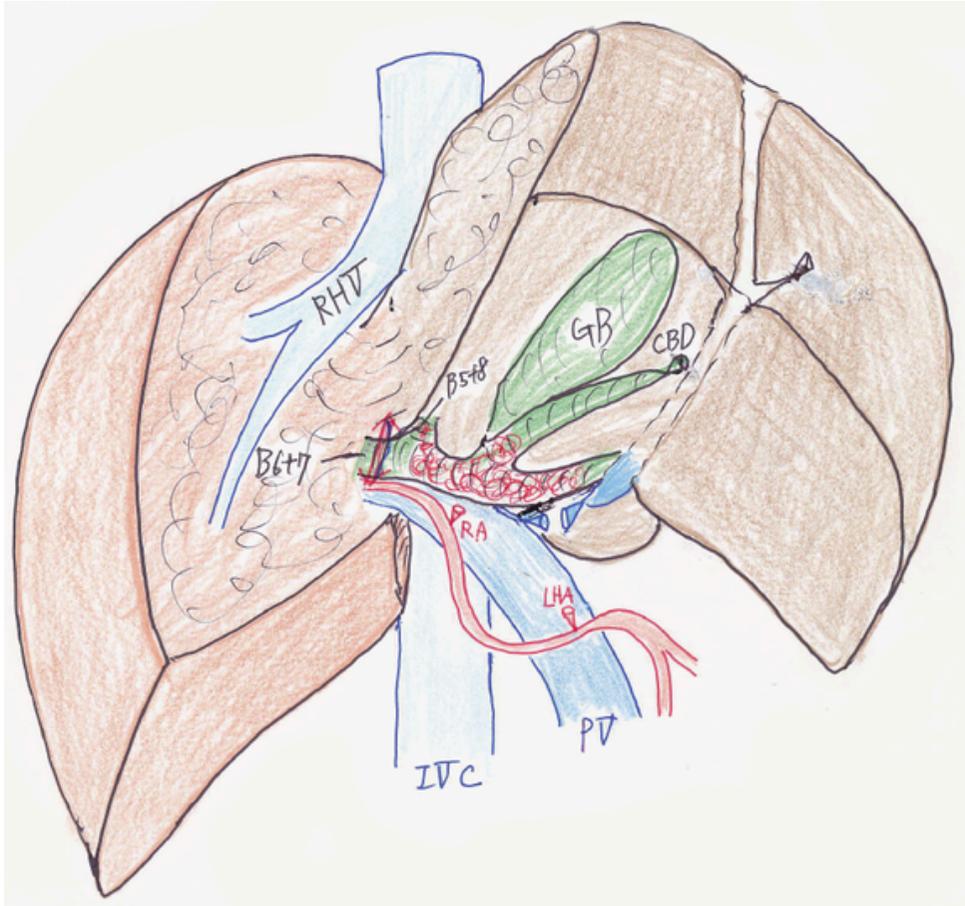


EXTENDED RIGHT HEPATECTOMY

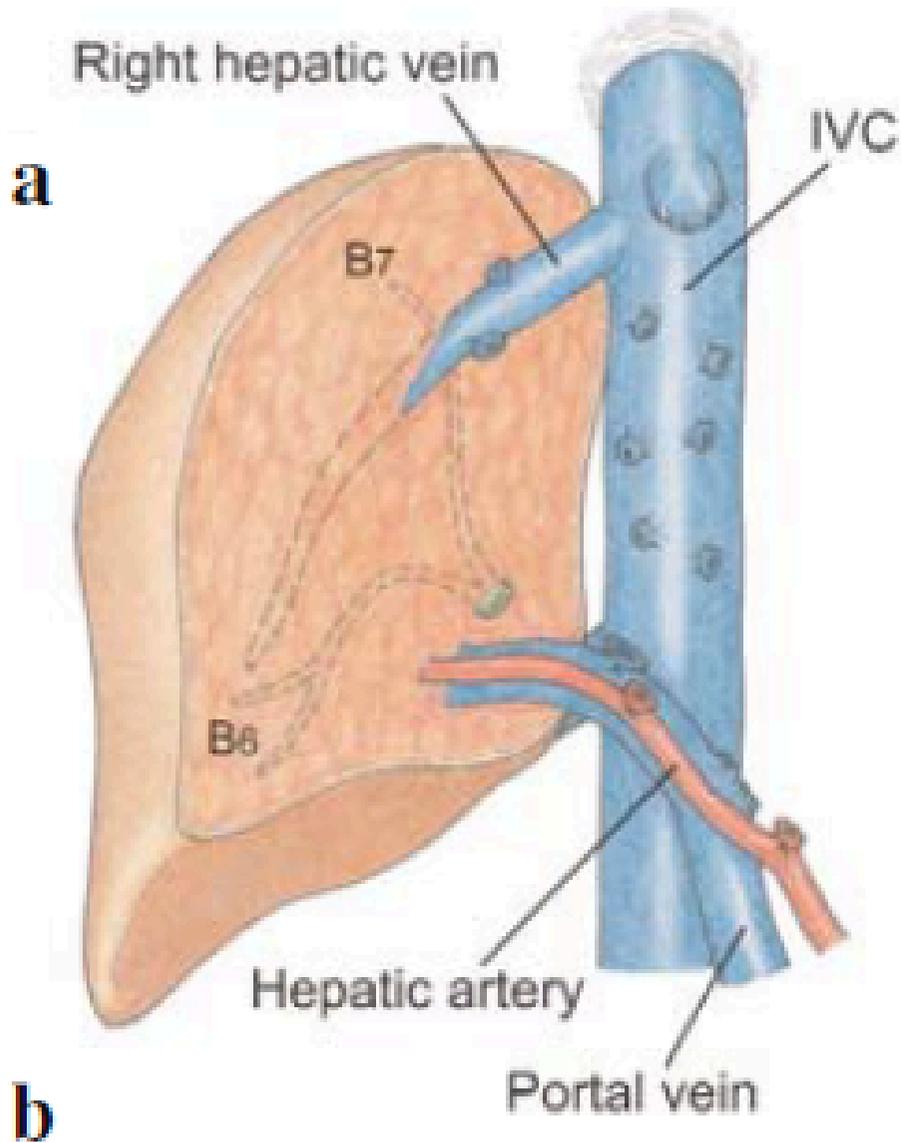
EXTENDED LEFT HEPATECTOMY



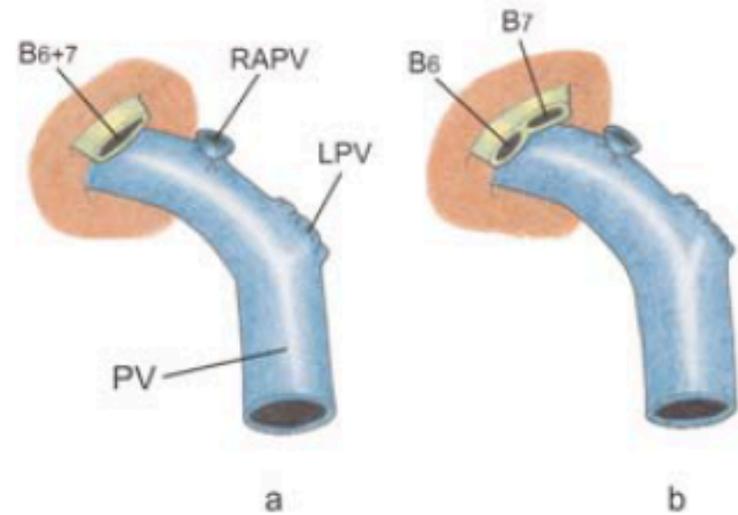
EXTENDED LEFT HEPATECTOMY



EXTENDED LEFT HEPATECTOMY

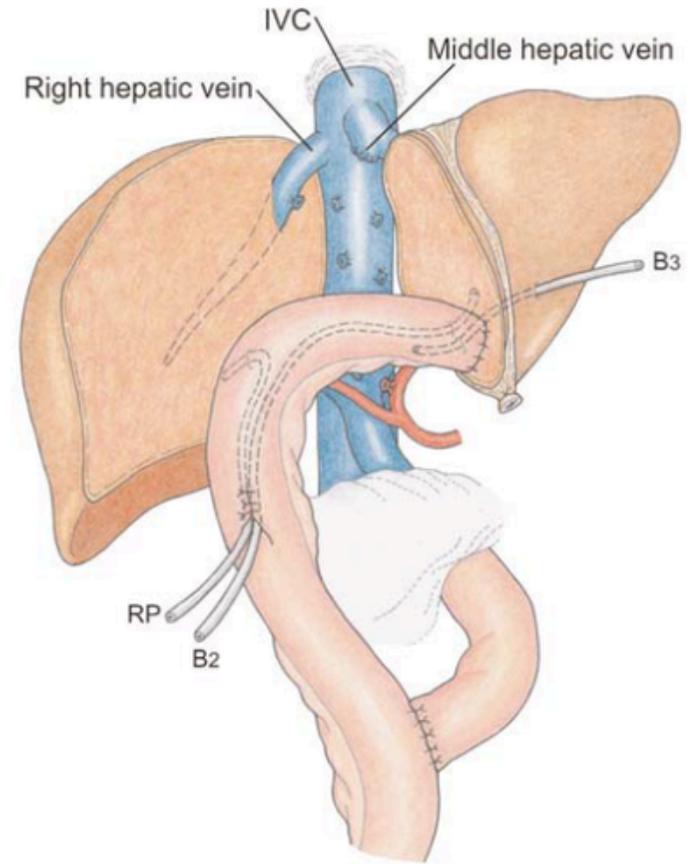
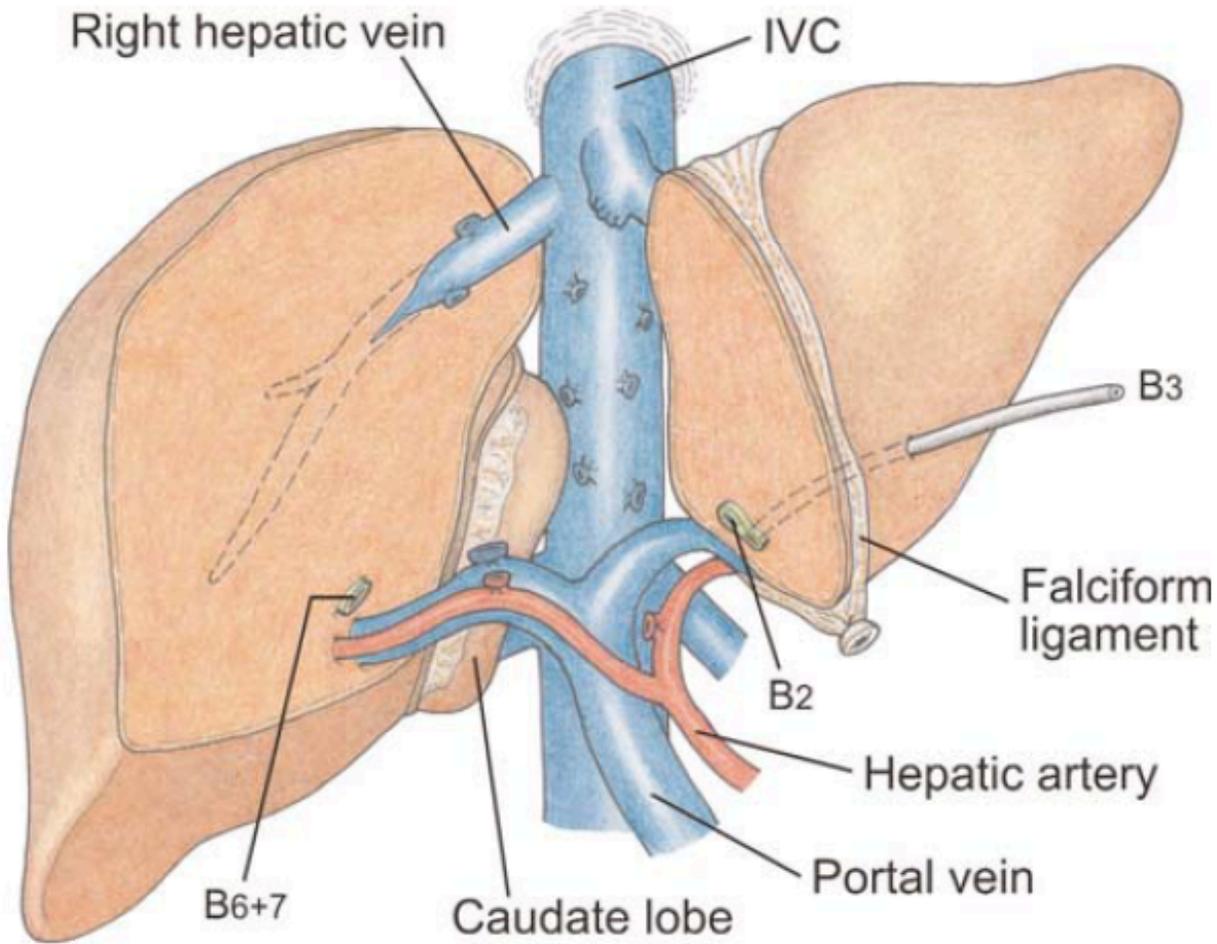


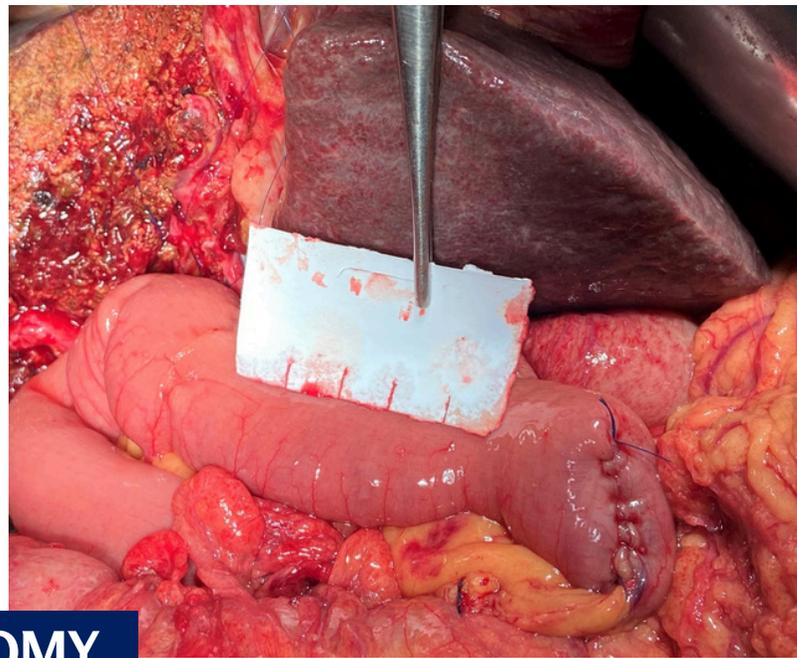
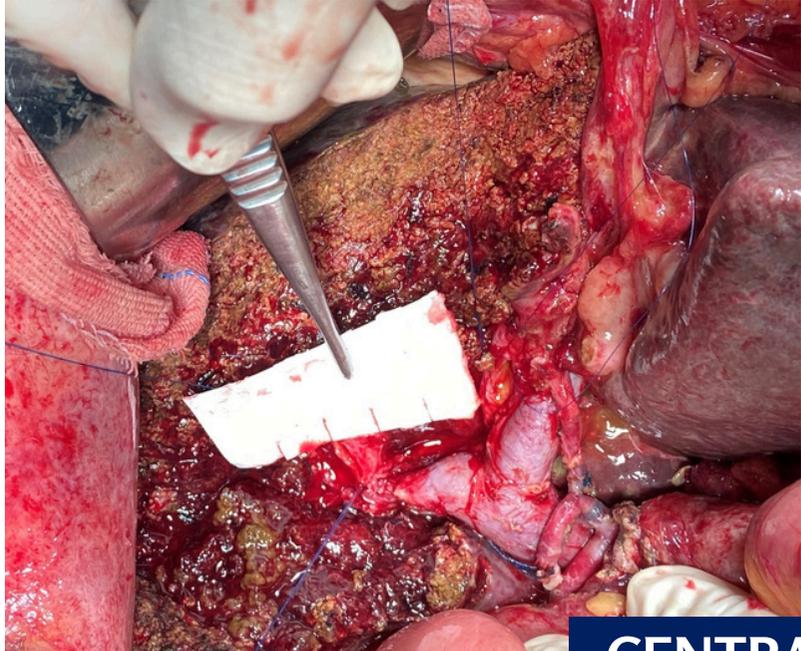
BILE DUCTS



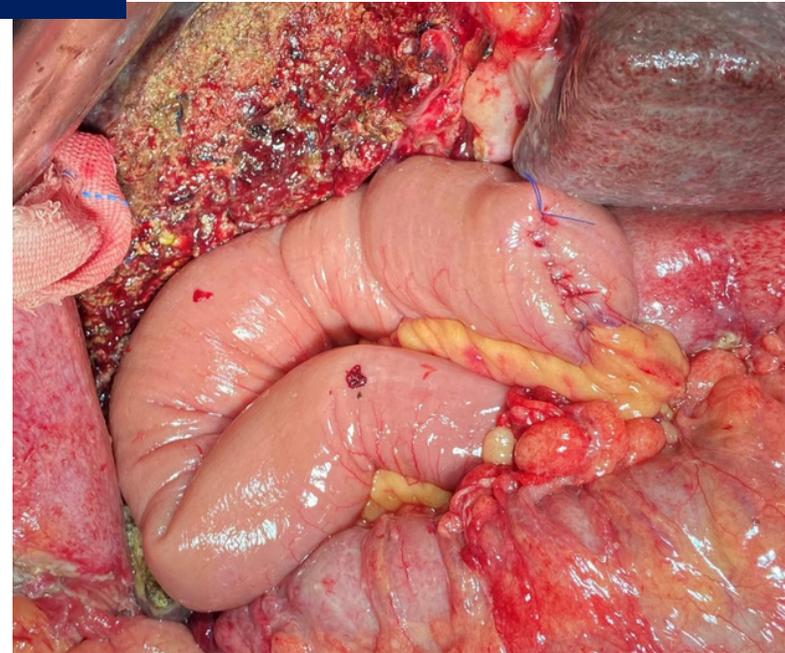
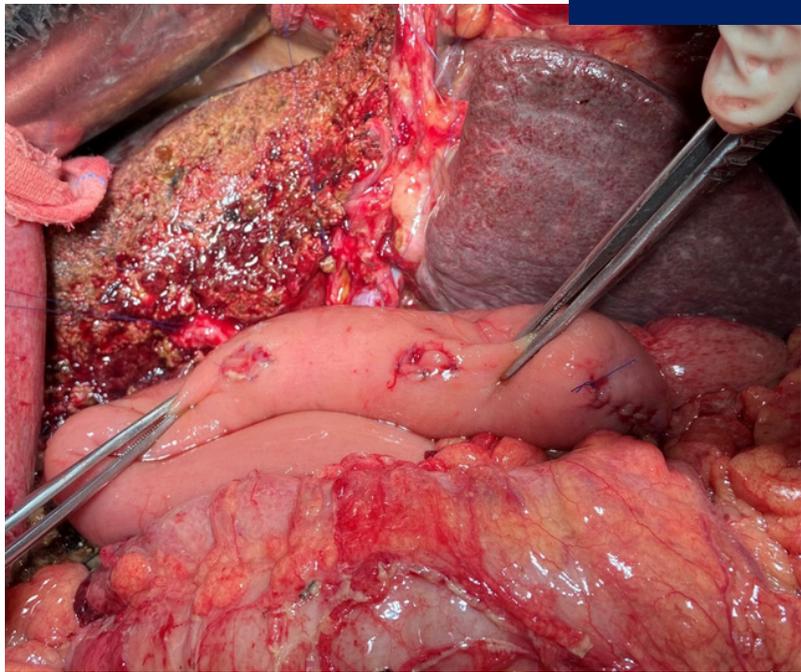
The posterior segmental ducts (B6,B7) may be unique or separated

CENTRAL HEPATECTOMY

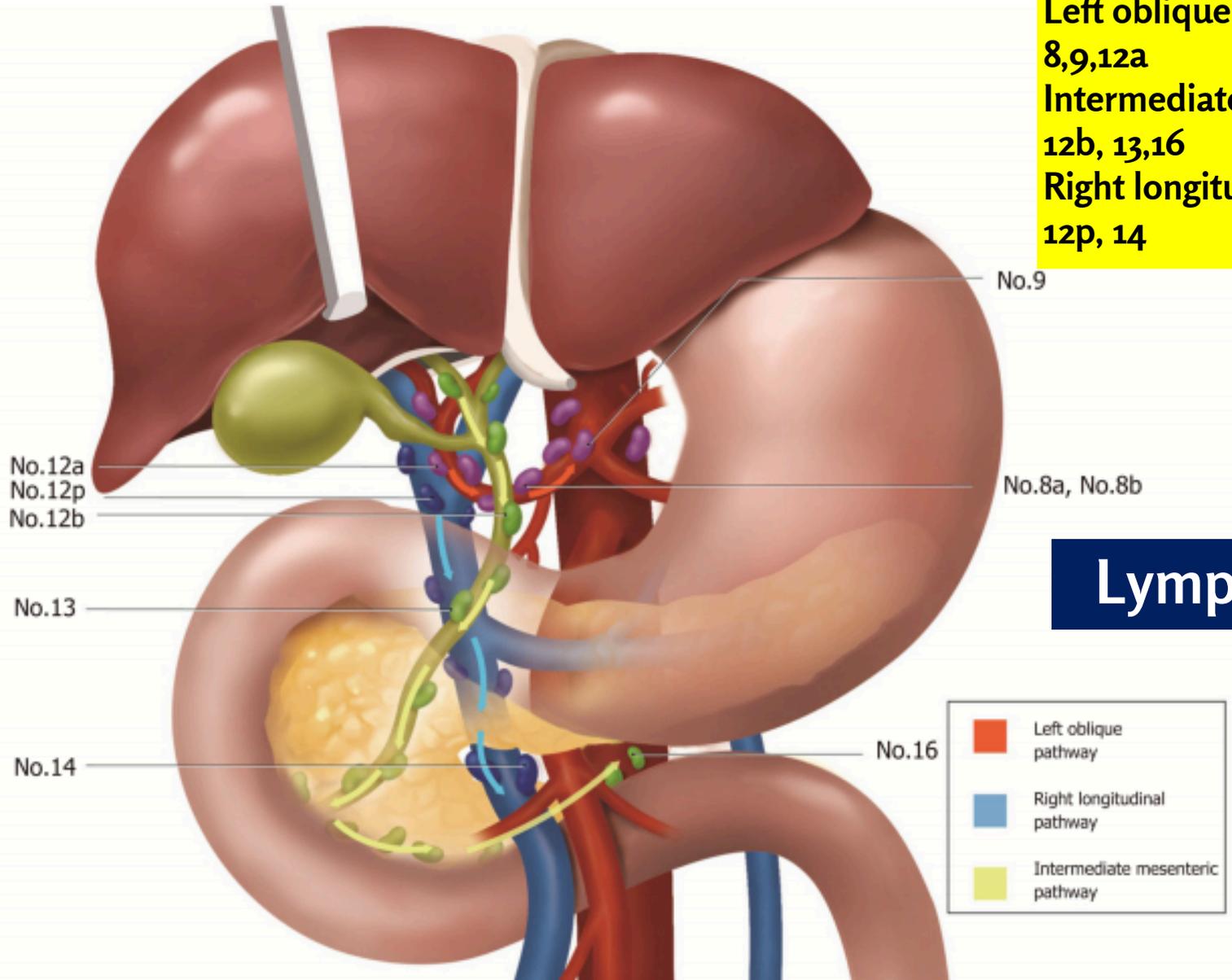




CENTRAL HEPATECTOMY



The lymphatic drainage of the hilar bile duct



Left oblique pathway:

8,9,12a

Intermediate mesenteric pathway:

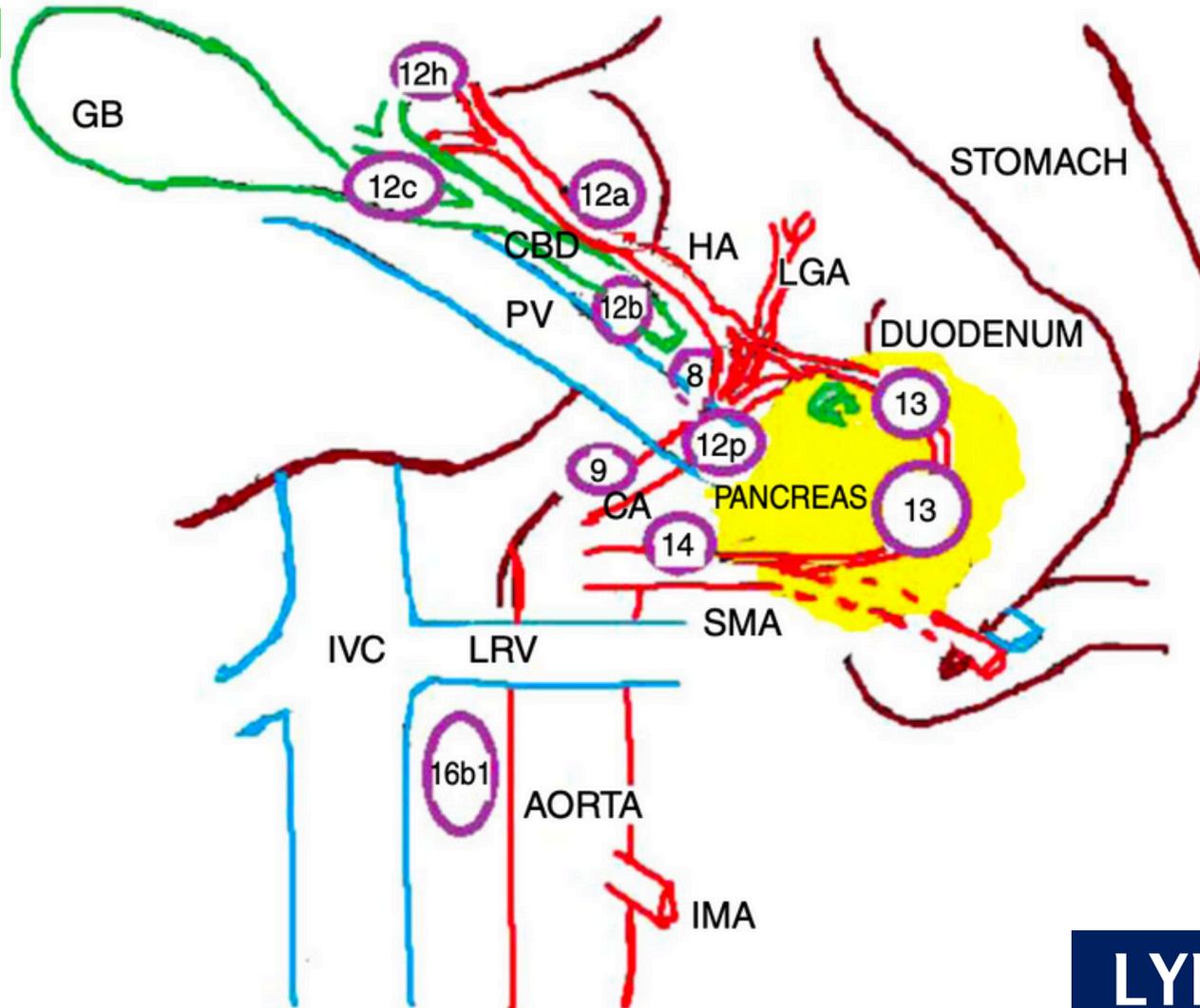
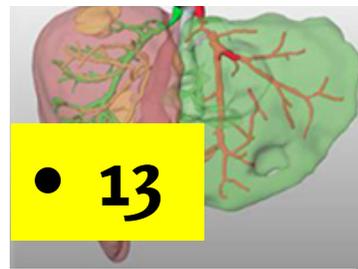
12b, 13,16

Right longitudinal pathway:

12p, 14

Lymphadenectomy

POSTERIOR SURFACE OF THE PANCREAS



Abbreviations

- GB – Gallbladder
- CBD – Common bile duct
- PV – Portal vein
- HA – Hepatic artery
- LGA – Left gastric artery
- CA – Coeliac artery
- SMA – Superior mesenteric artery
- IMA – Inferior mesenteric artery
- LRV – Left renal vein
- IVC – Inferior vena cava

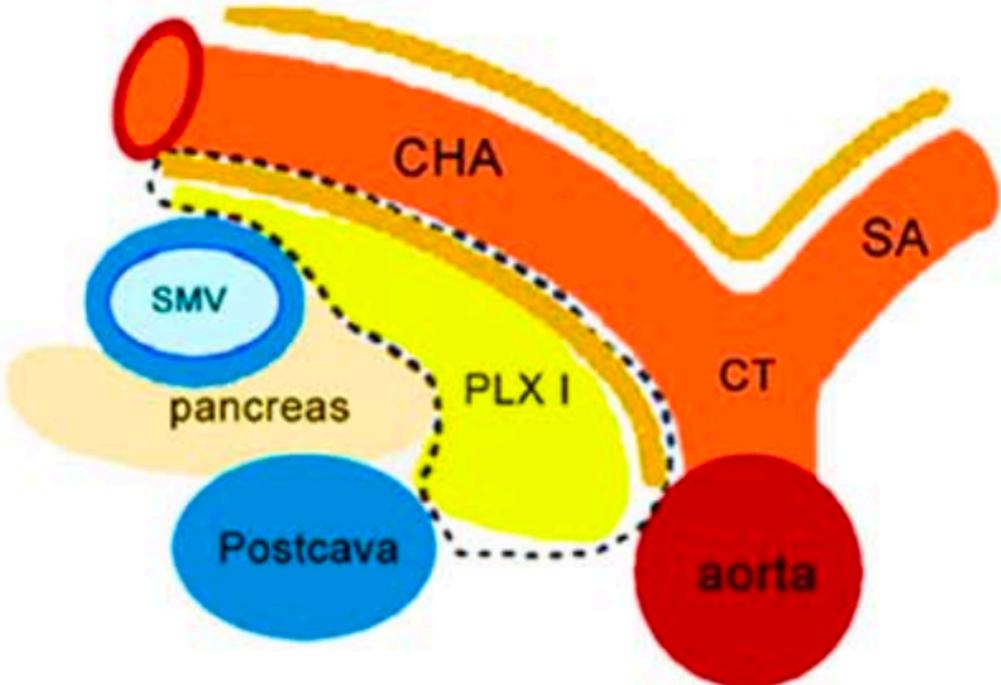
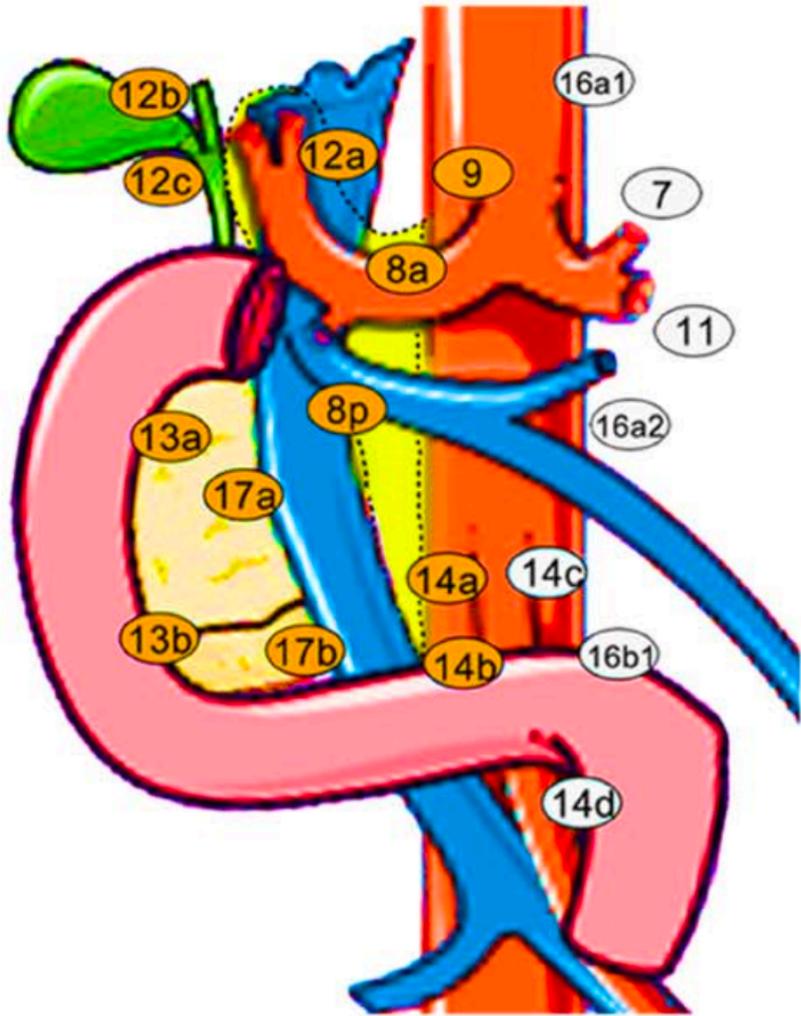
LYMPHADENECTOMY

COMMON HEPATIC ARTERY LYMPH

• 8a

• 8p

A

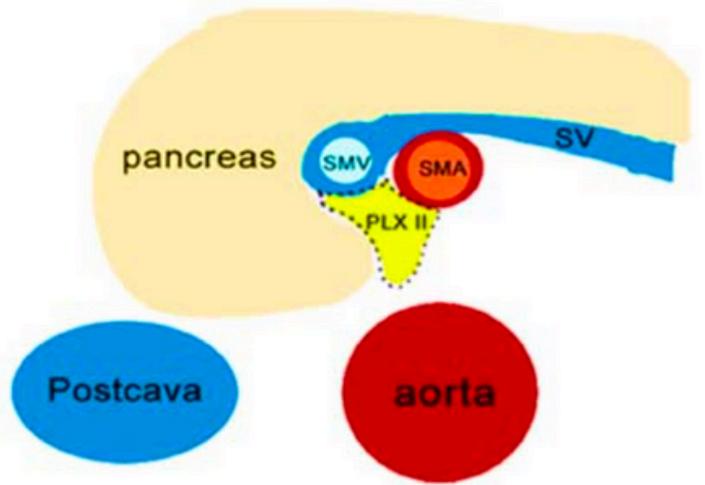
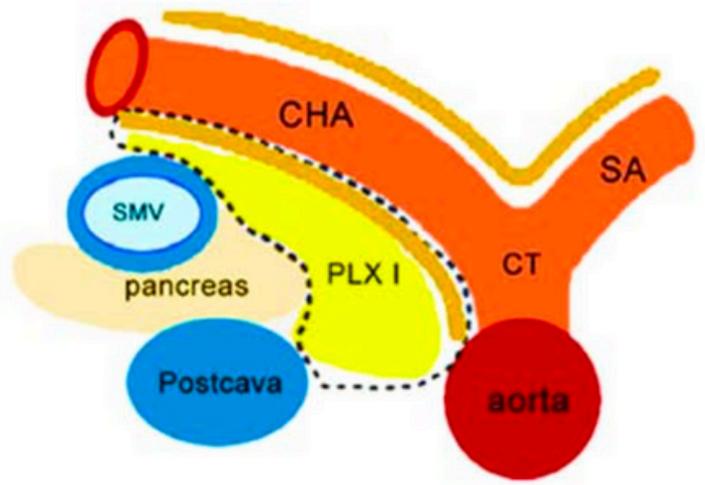
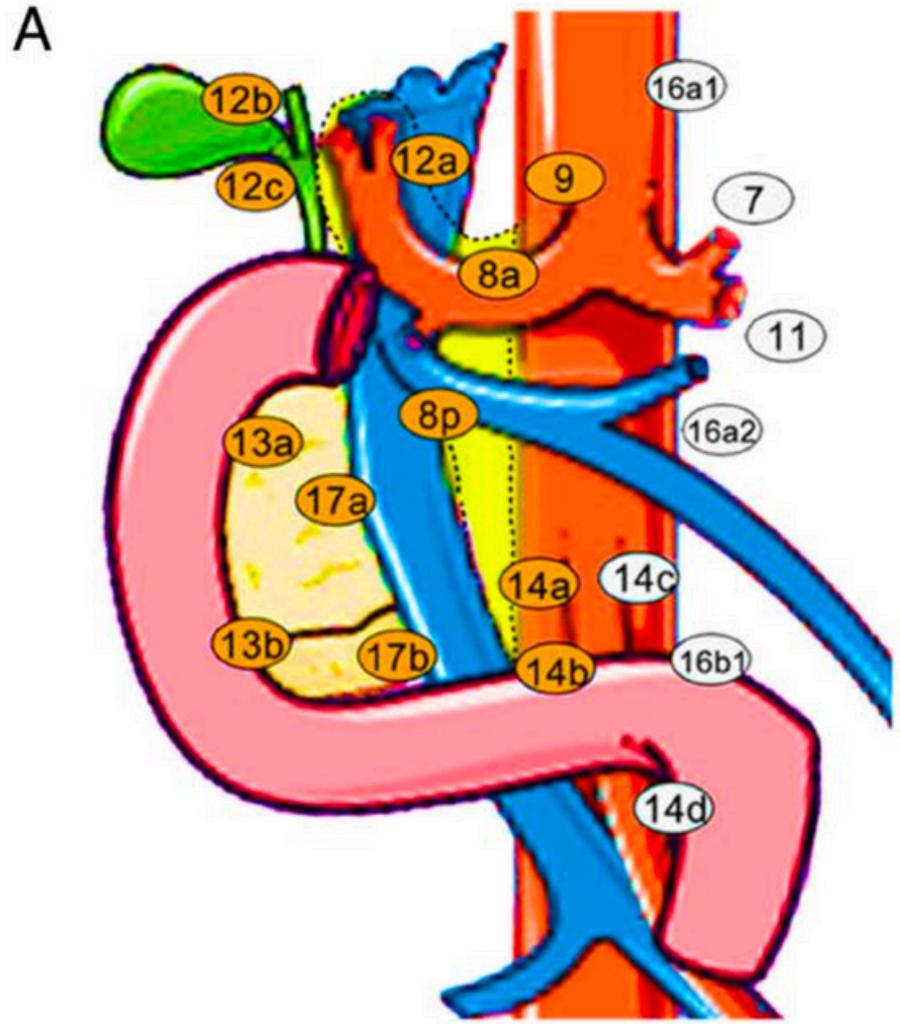


Lymphadenectomy

CELIAC TRUNK LYMPH NODES

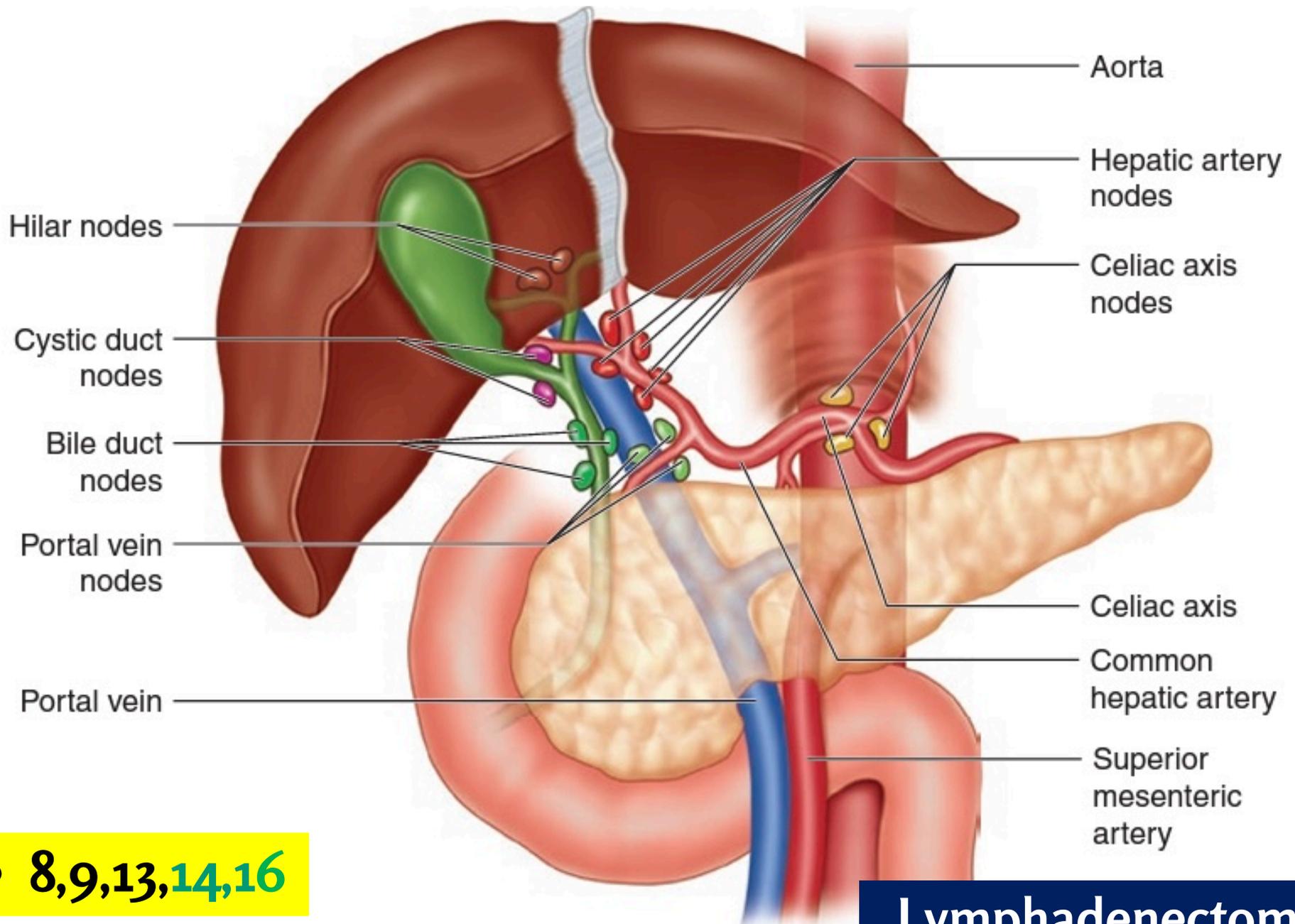
- Celiac trunk lymph nodes 9

- 9



Lymphadenectomy

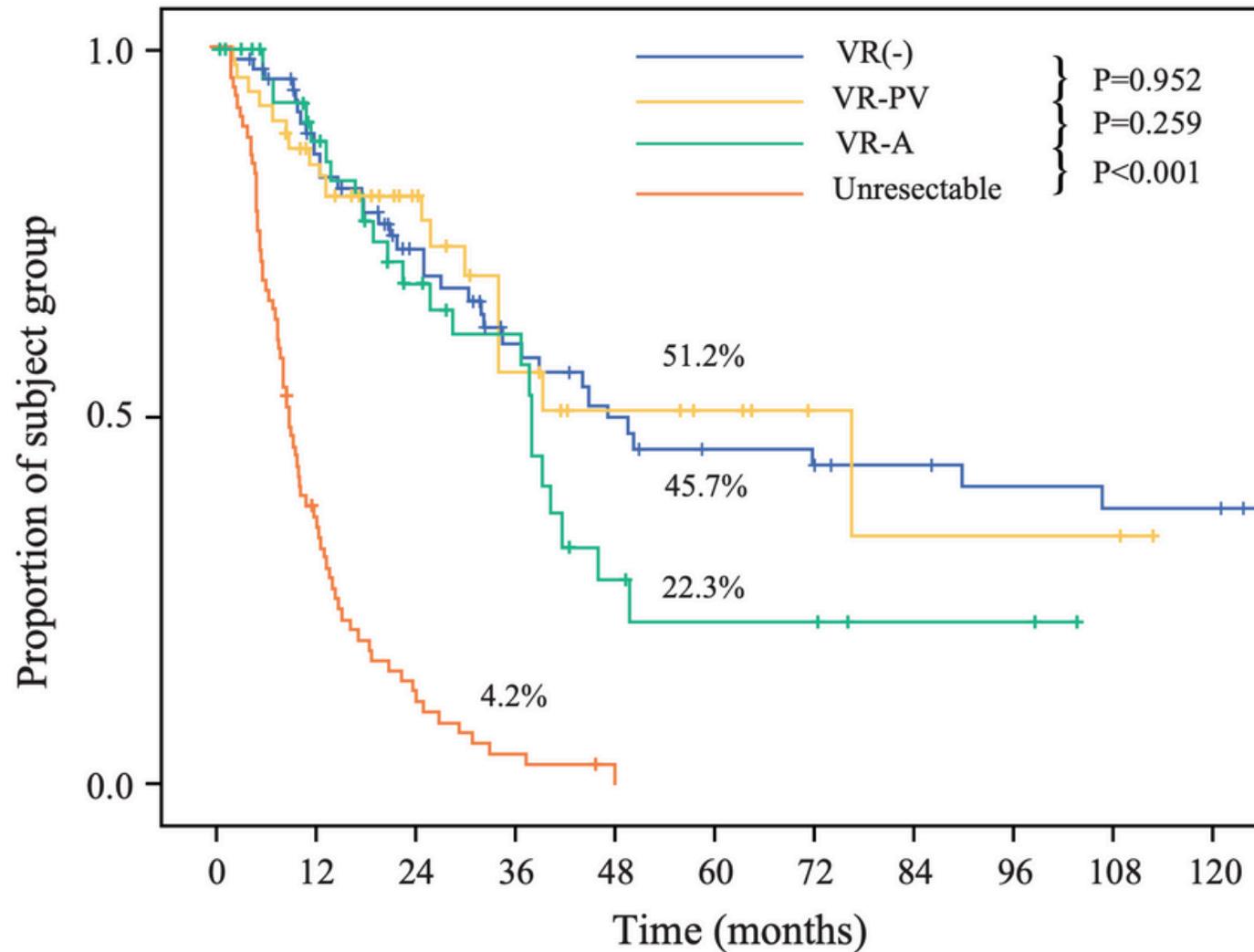
EXTENT OF LYMPH NODE



- 8,9,13,14,16

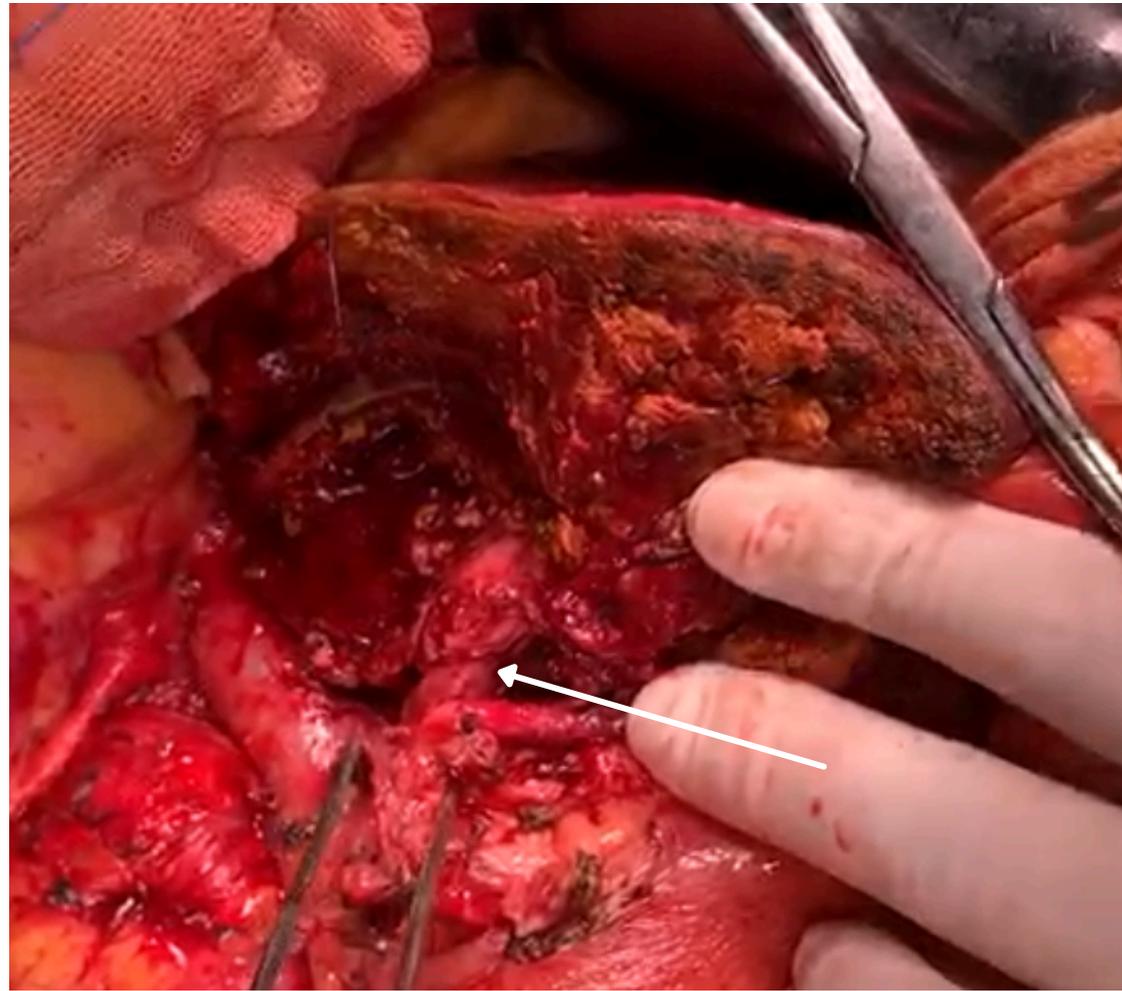
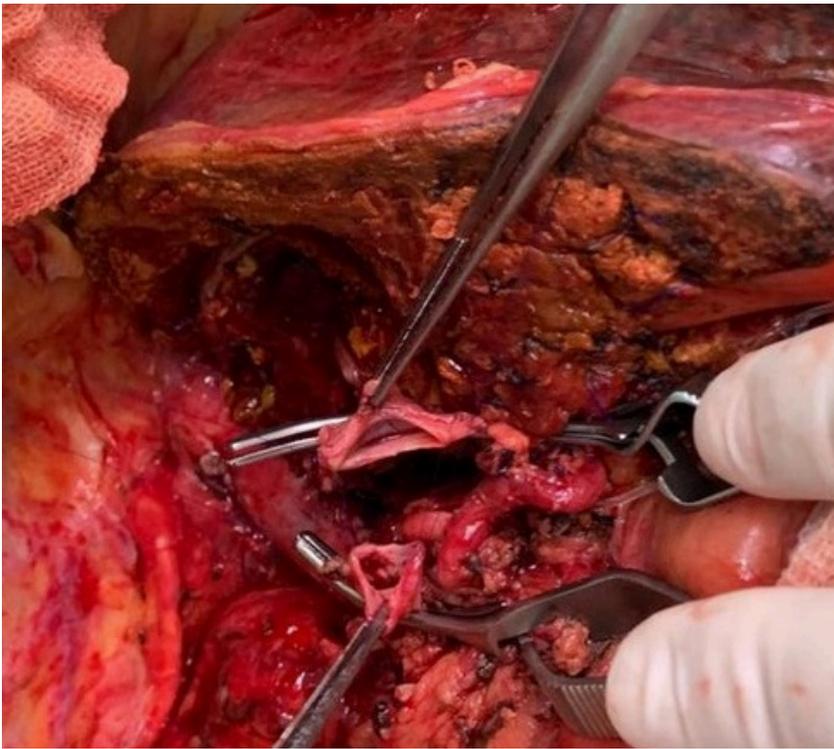
Lymphadenectomy

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



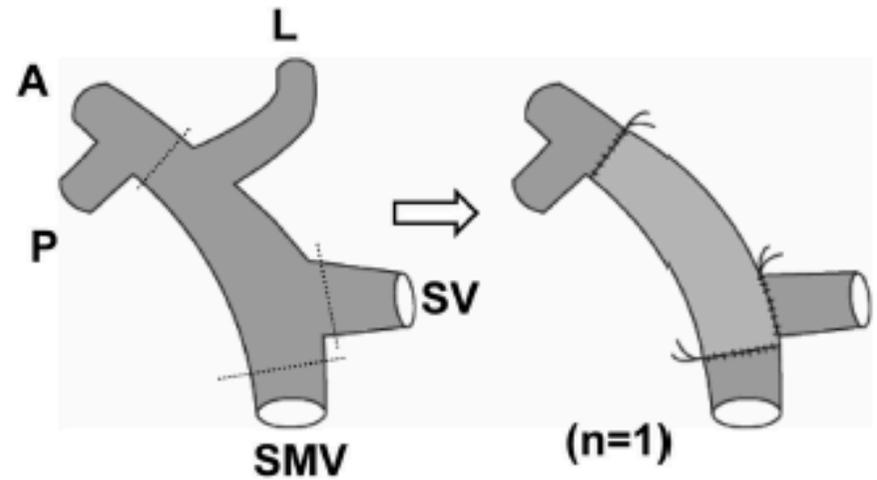
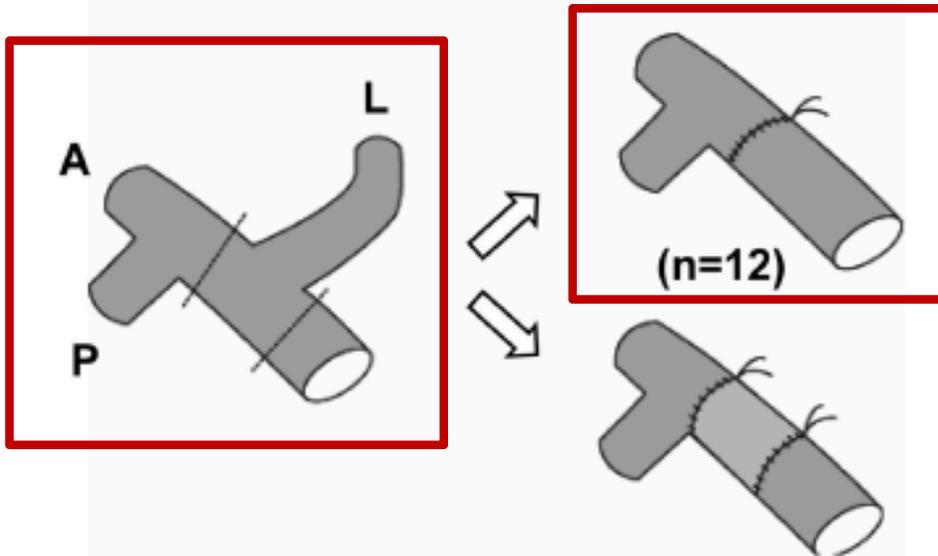
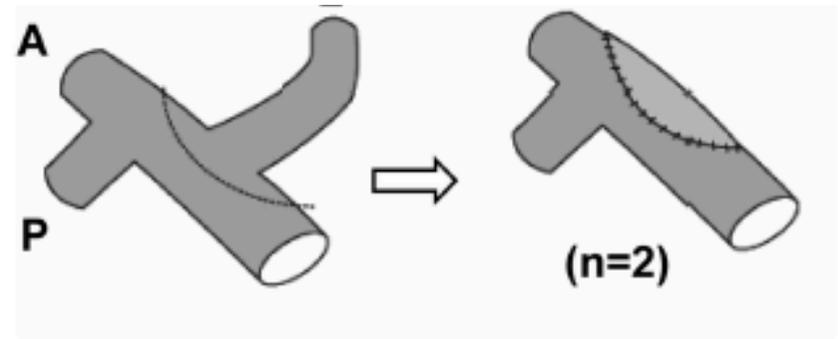
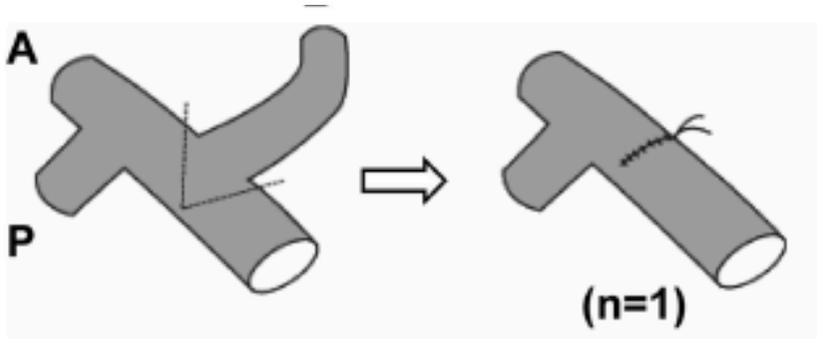
PORTAL VEIN INVOLVEMENT

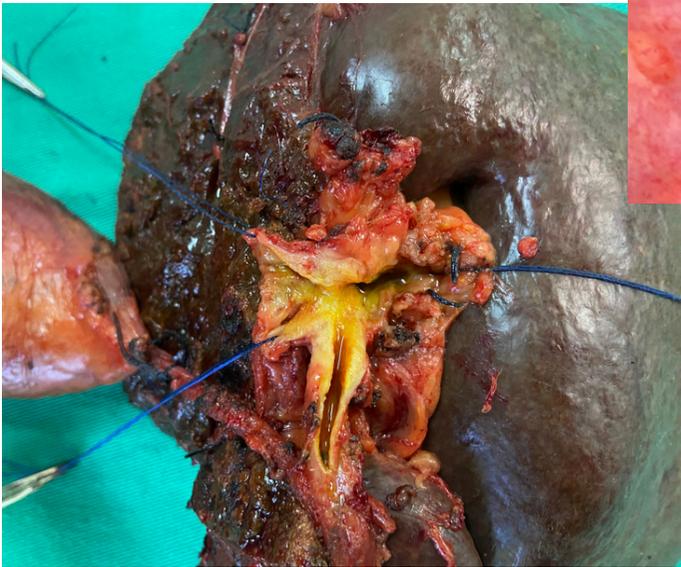
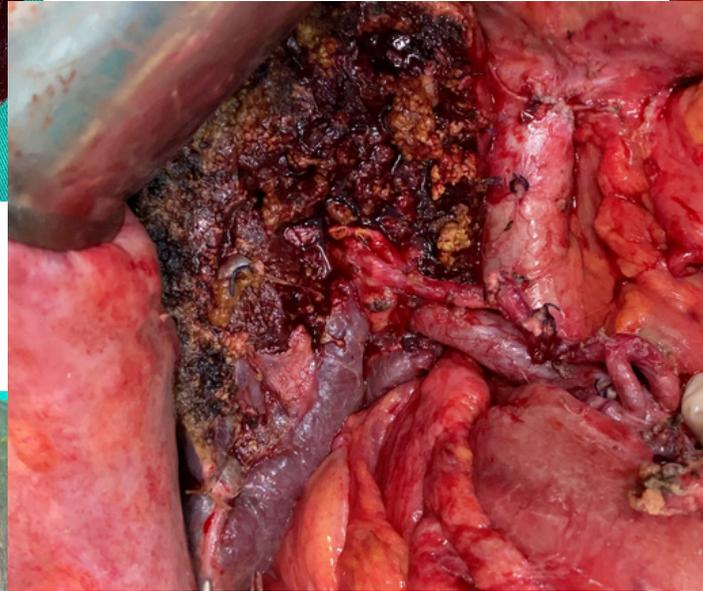
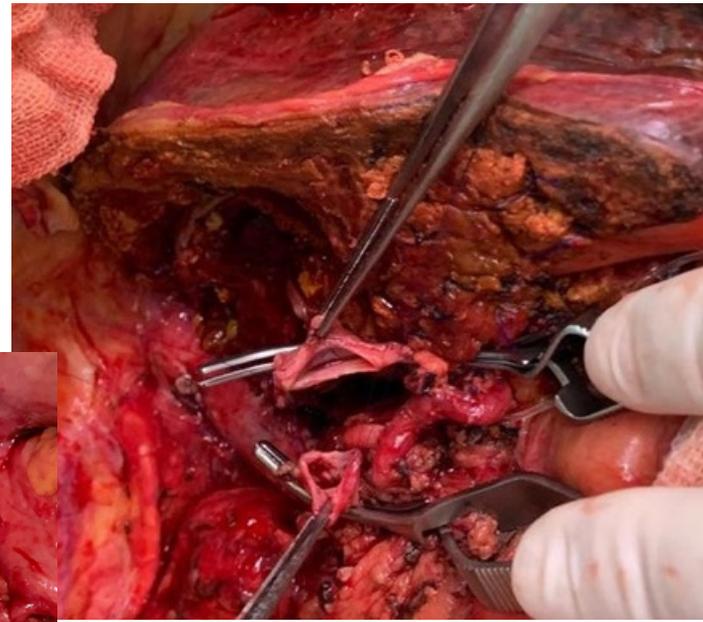
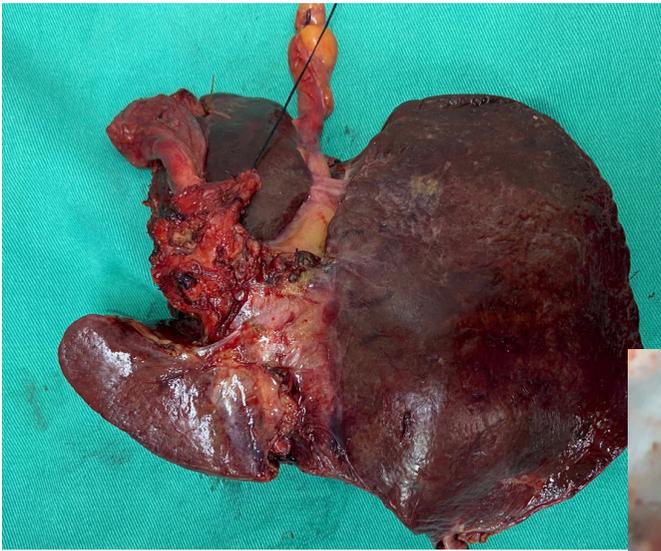
EXTENDED RIGHT HEPATECTOMY



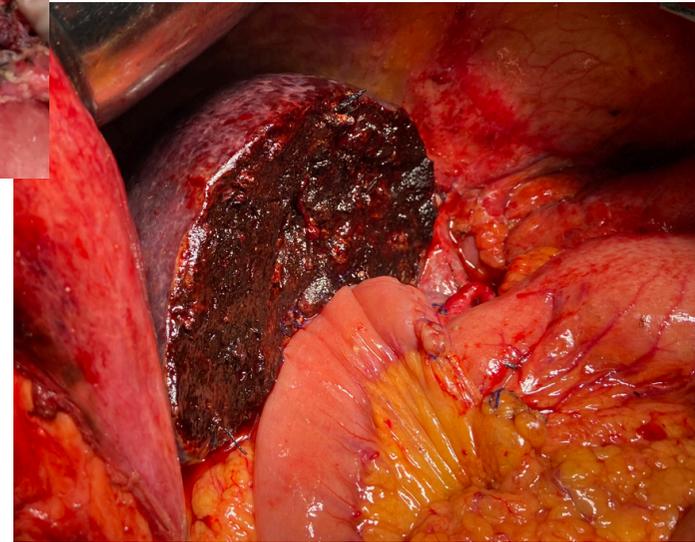
PORTAL VEIN INVOLVEMENT

LEFT HEPATECTOMY AND PORTAL VEIN RESECTION





CONCLUSION



Obrigado!



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