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Management options for liver tumours: How do we decide

Ruwan Wijesuriya

Management options

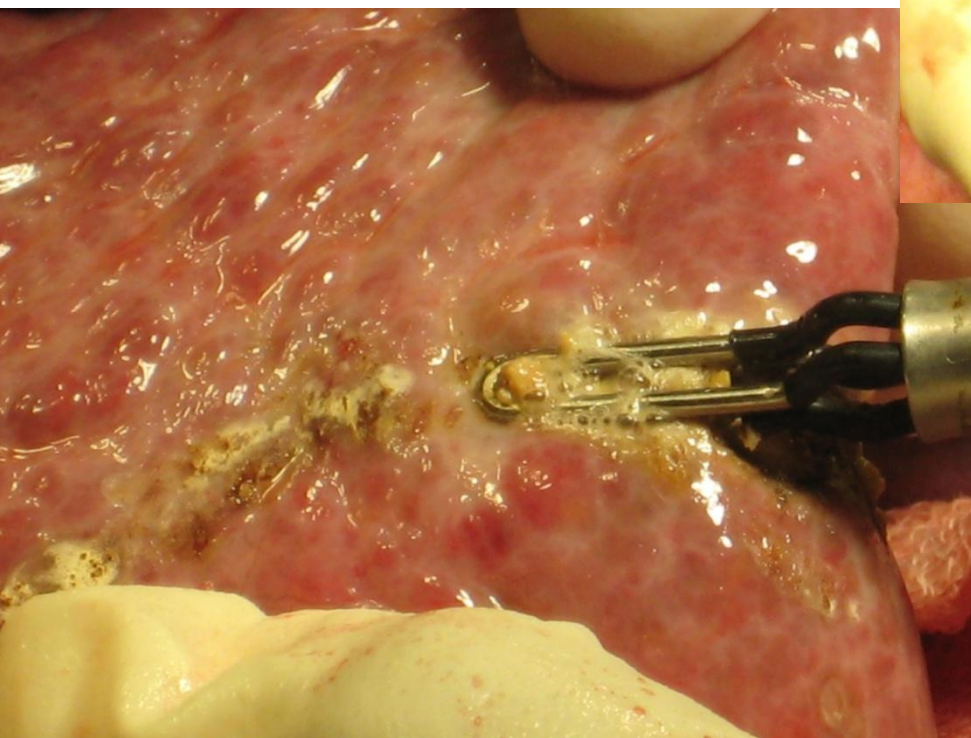
- Active observation
- No active treatment – supportive care
- Chemotherapy
- Radiotherapy
- ablative techniques
- Liver resection
- Liver transplantation

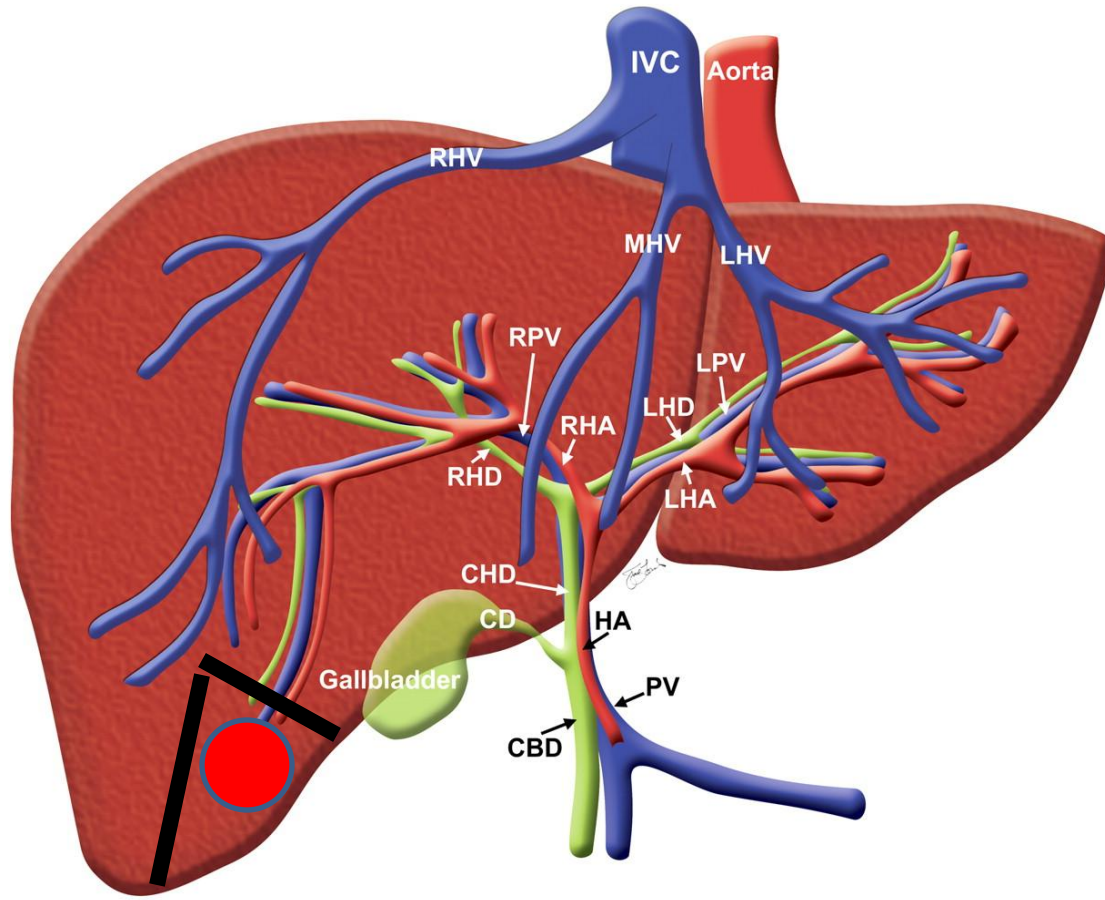


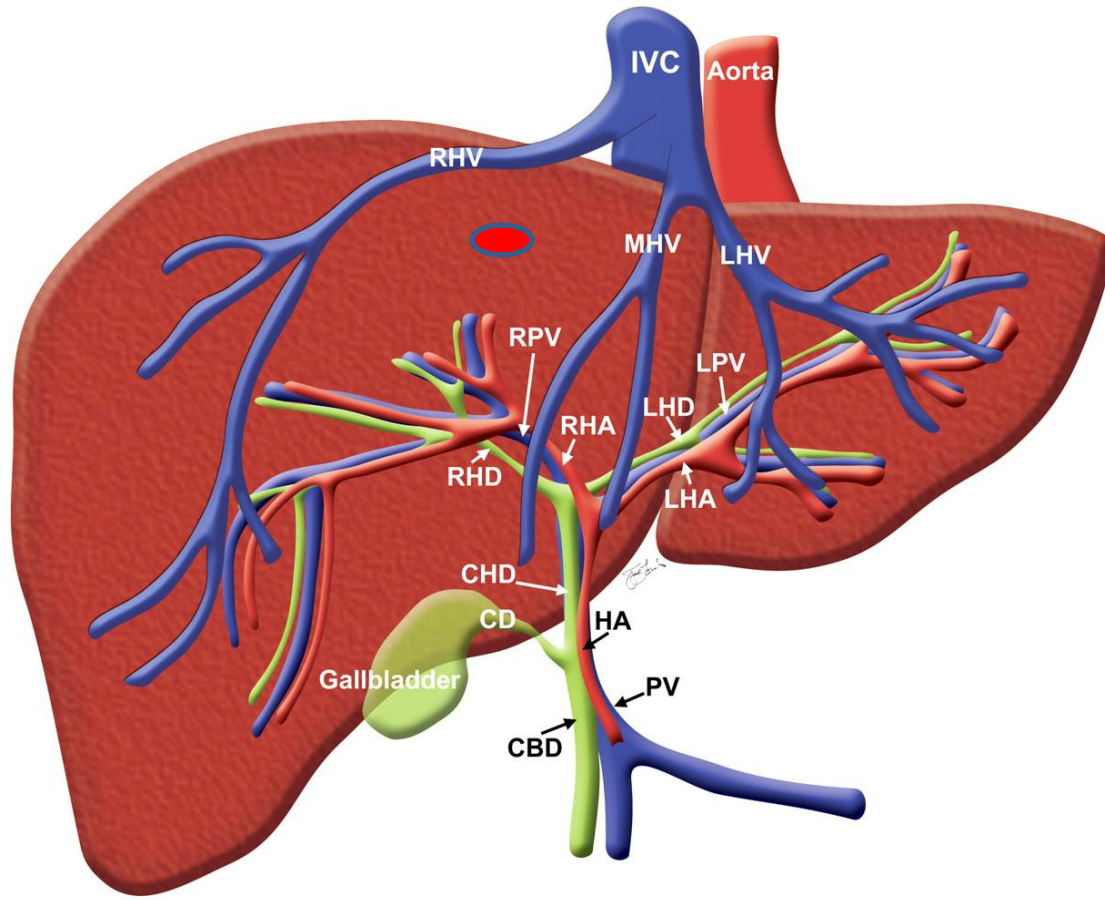
Management options

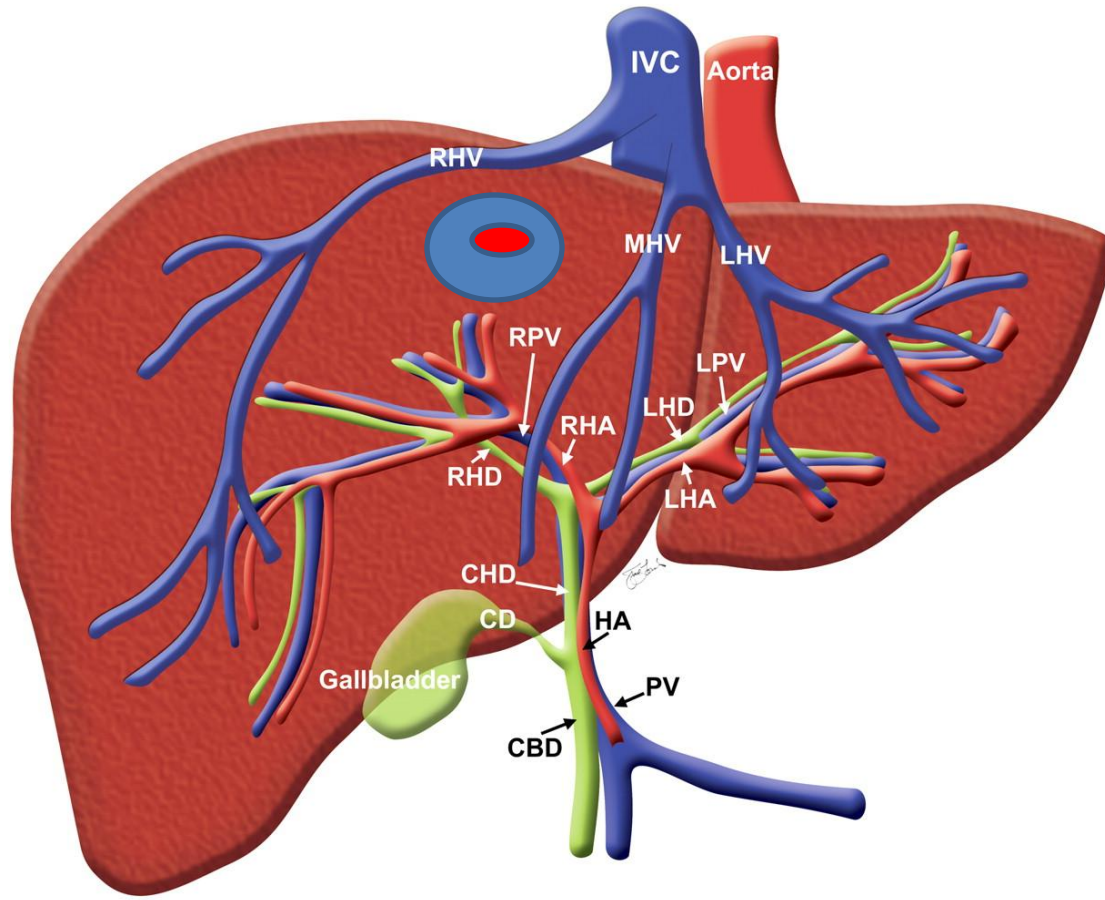
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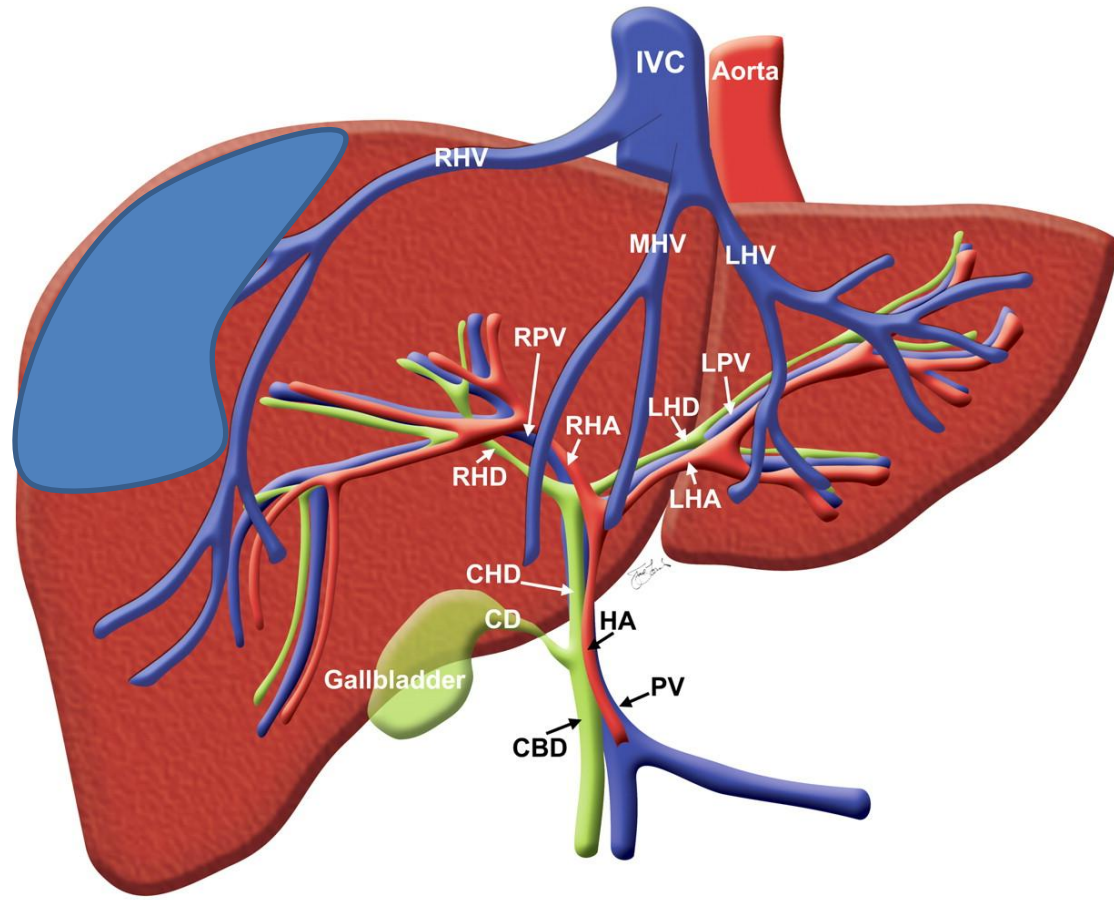
- Surgical techniques
 - Liver resection

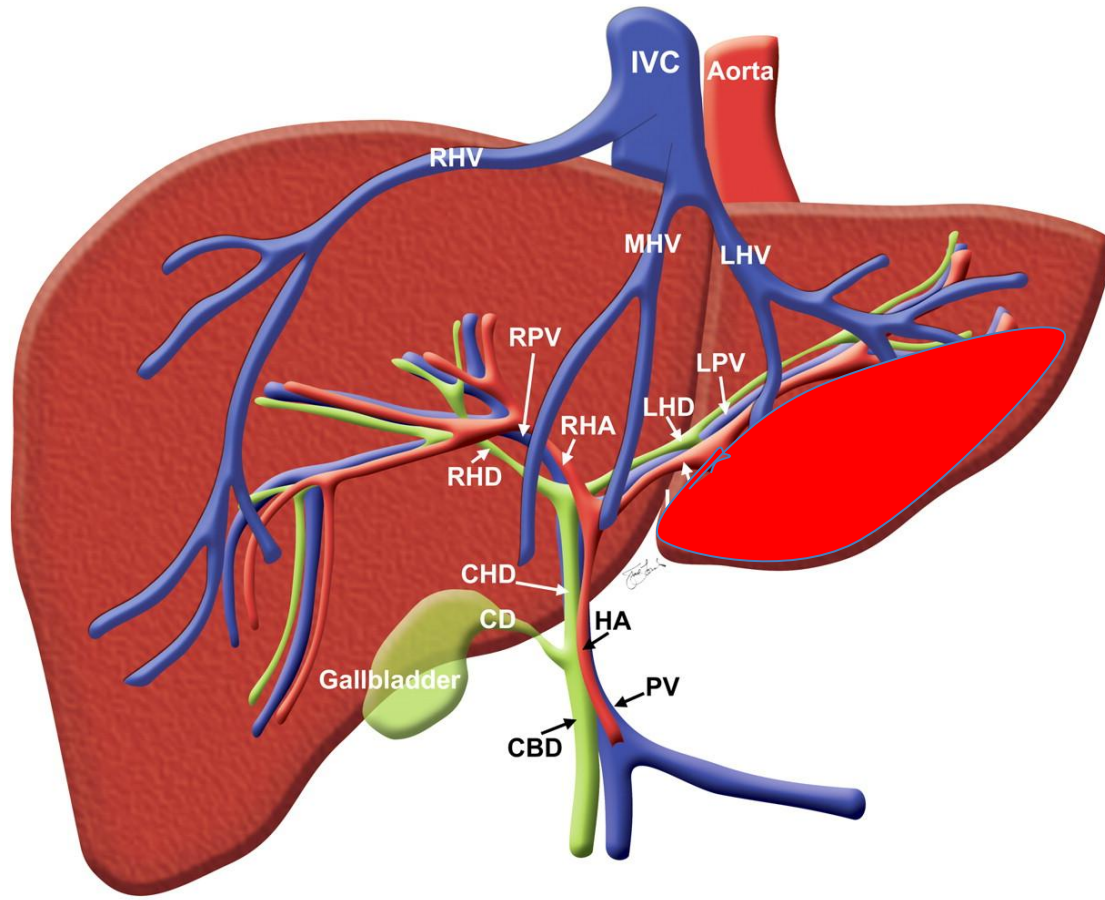


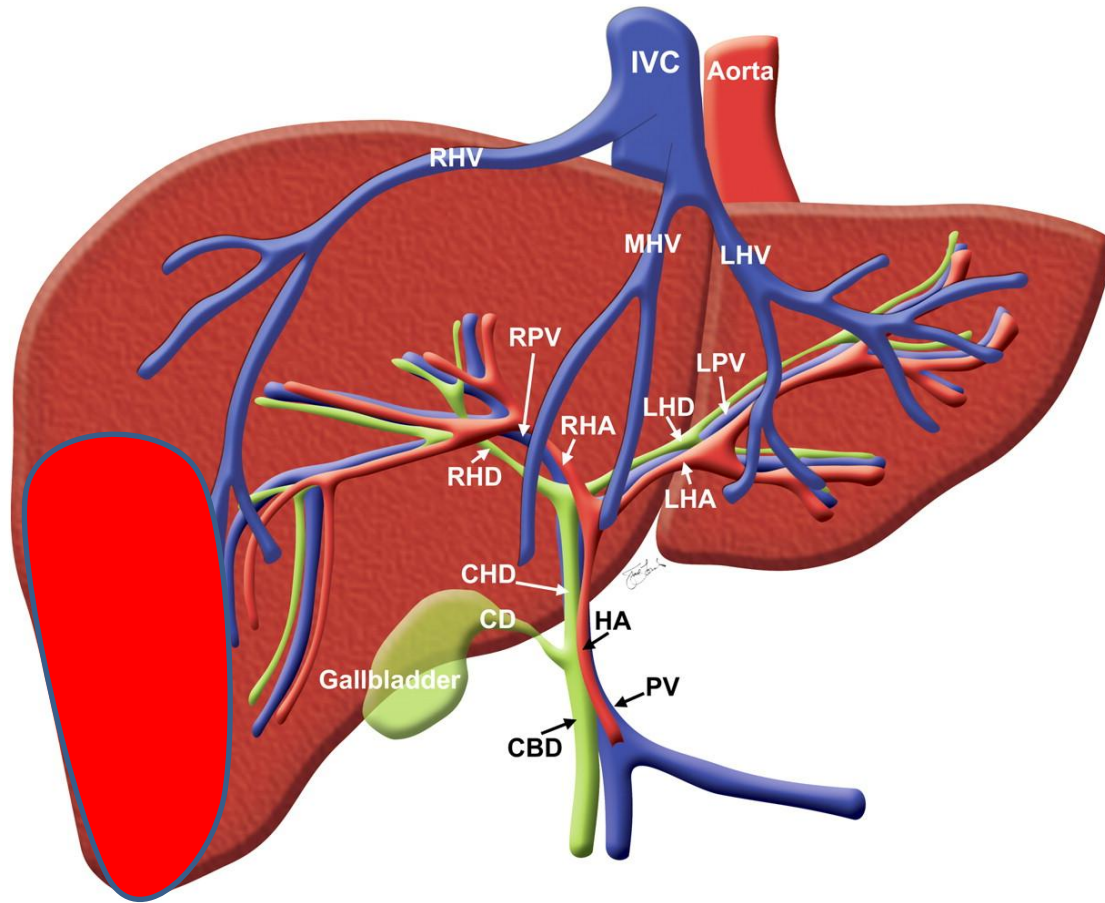


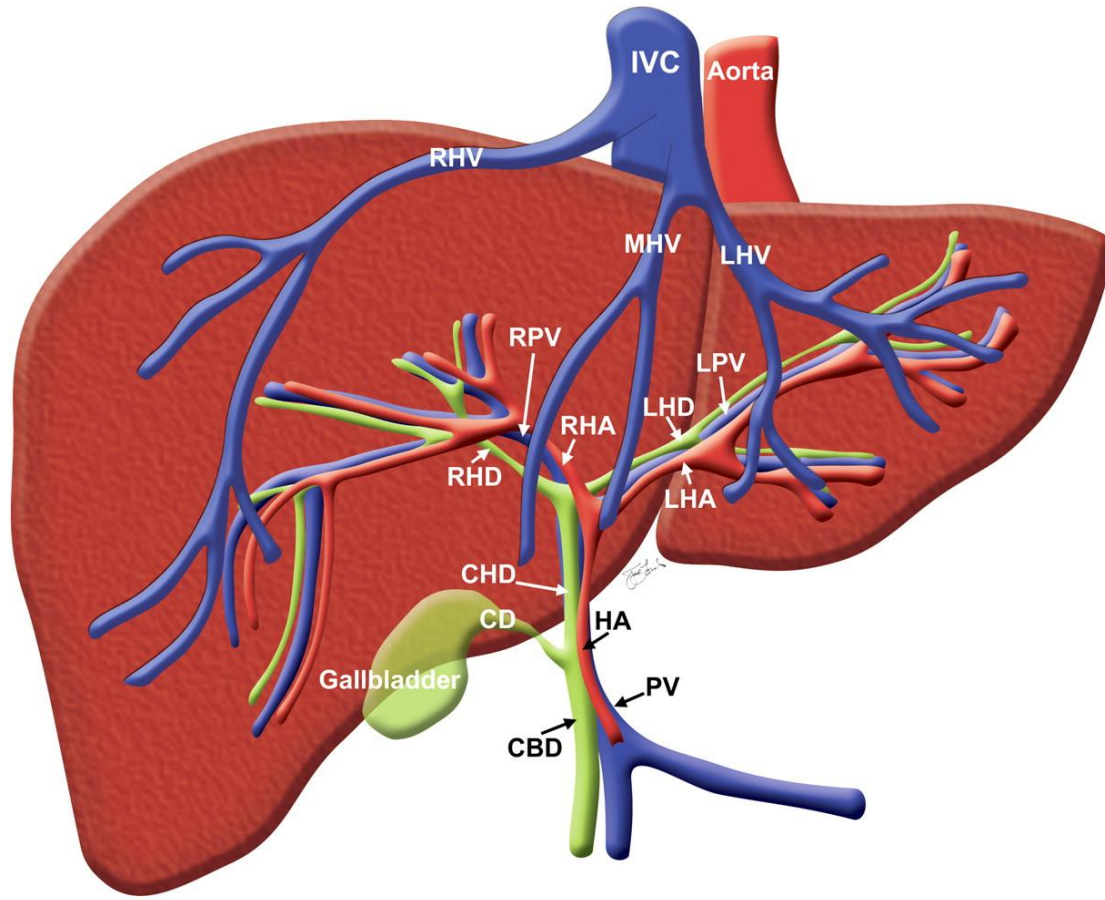


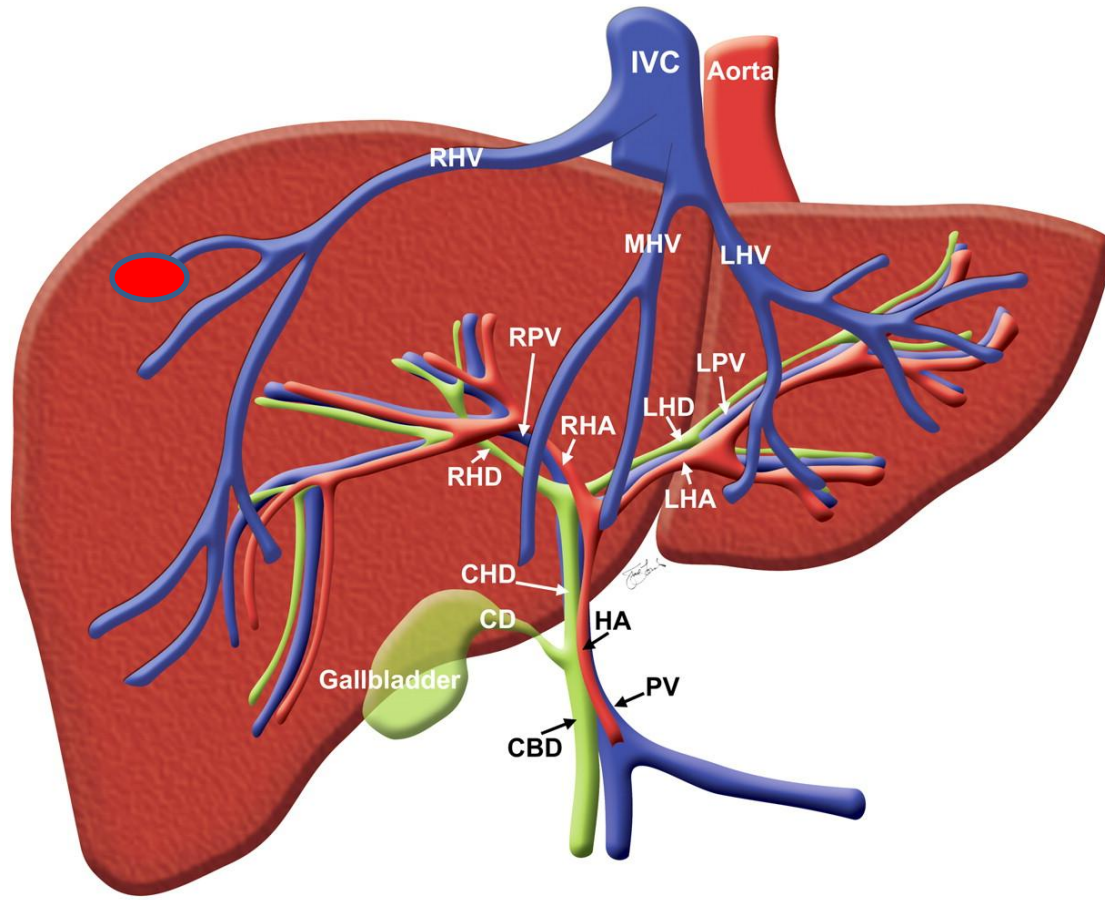


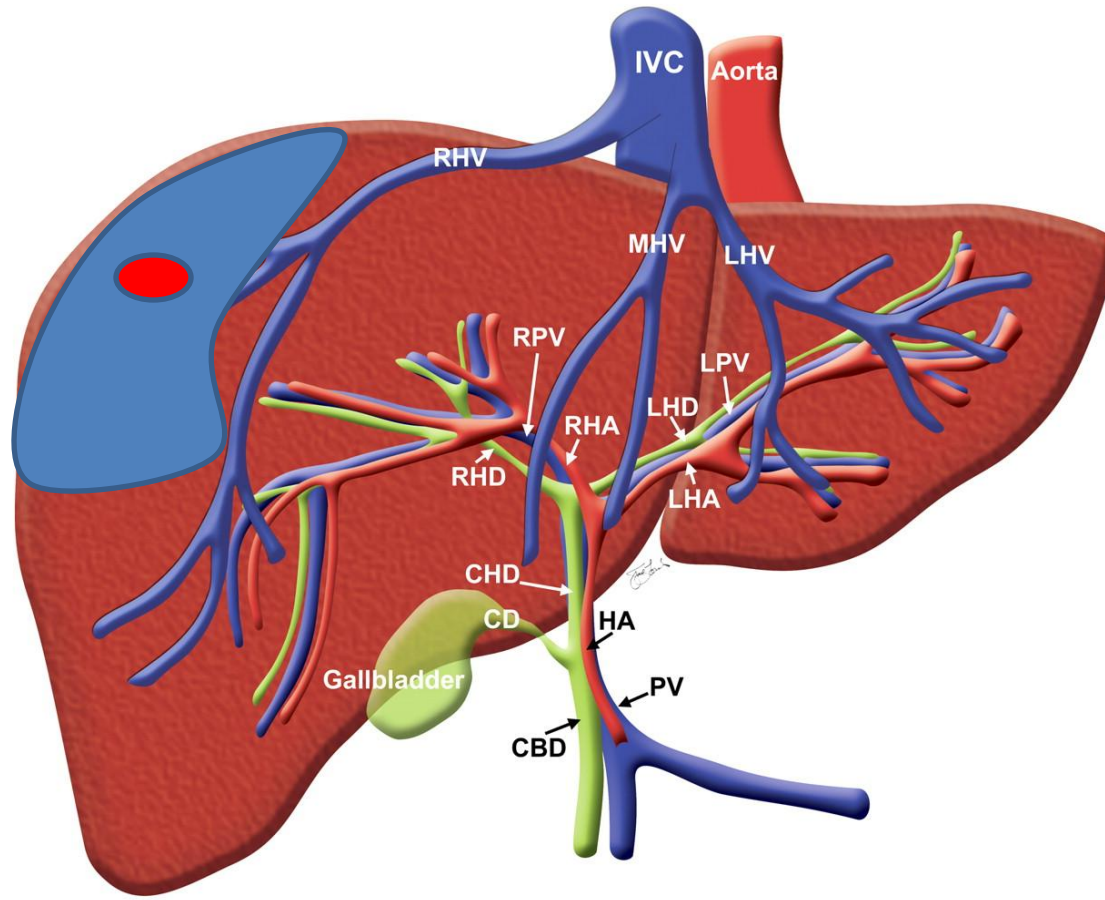


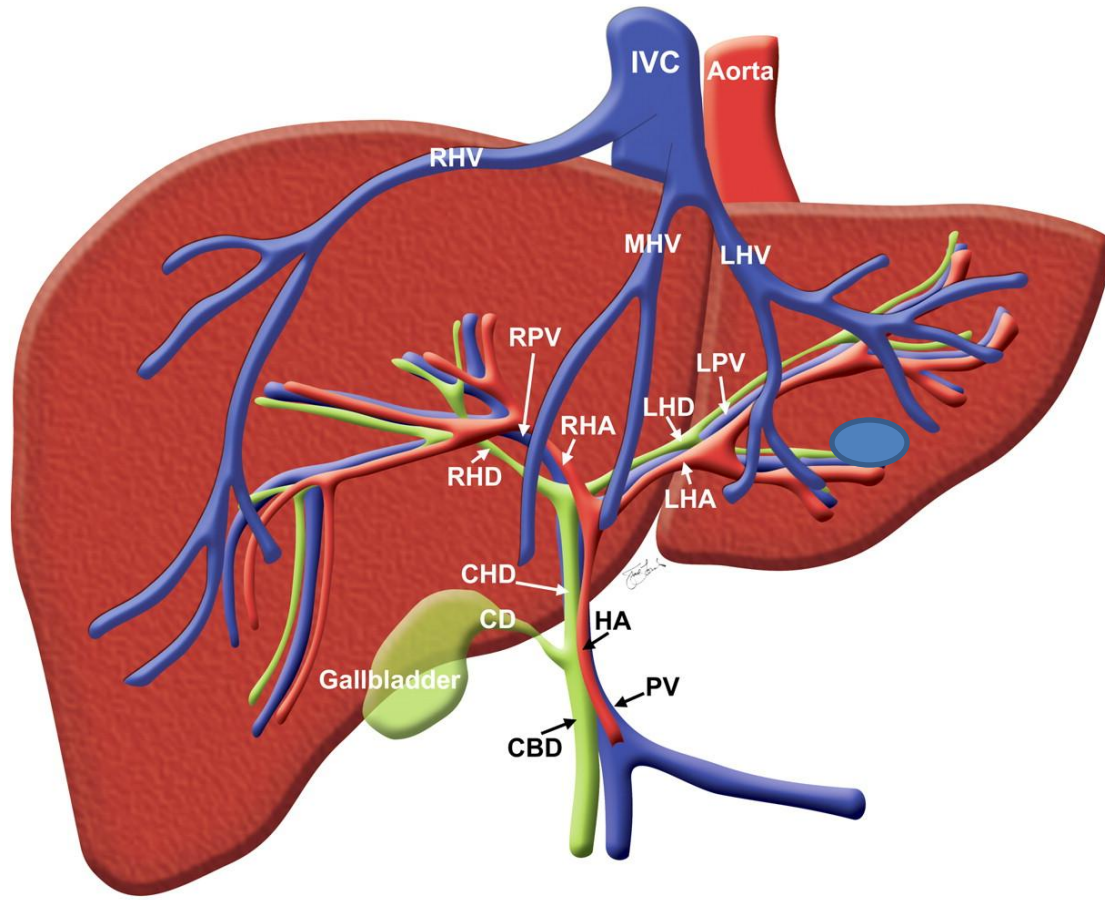


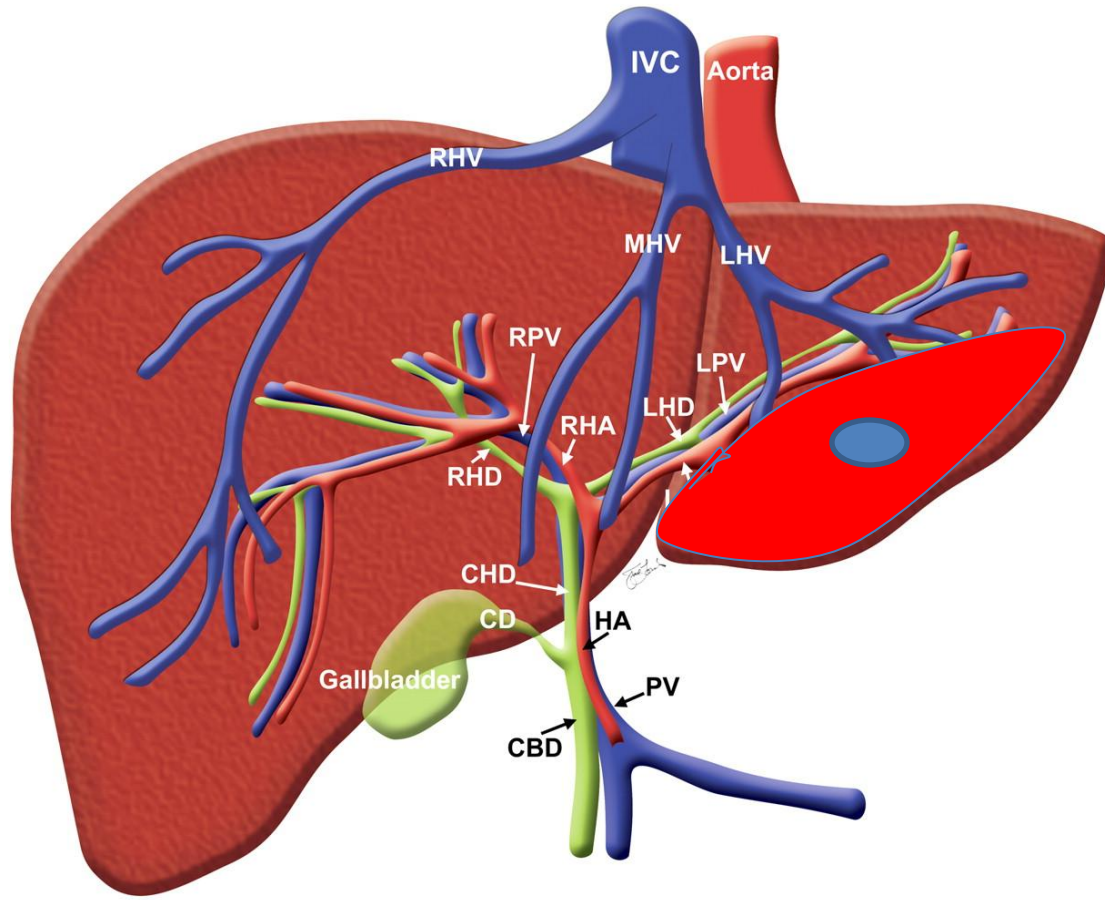


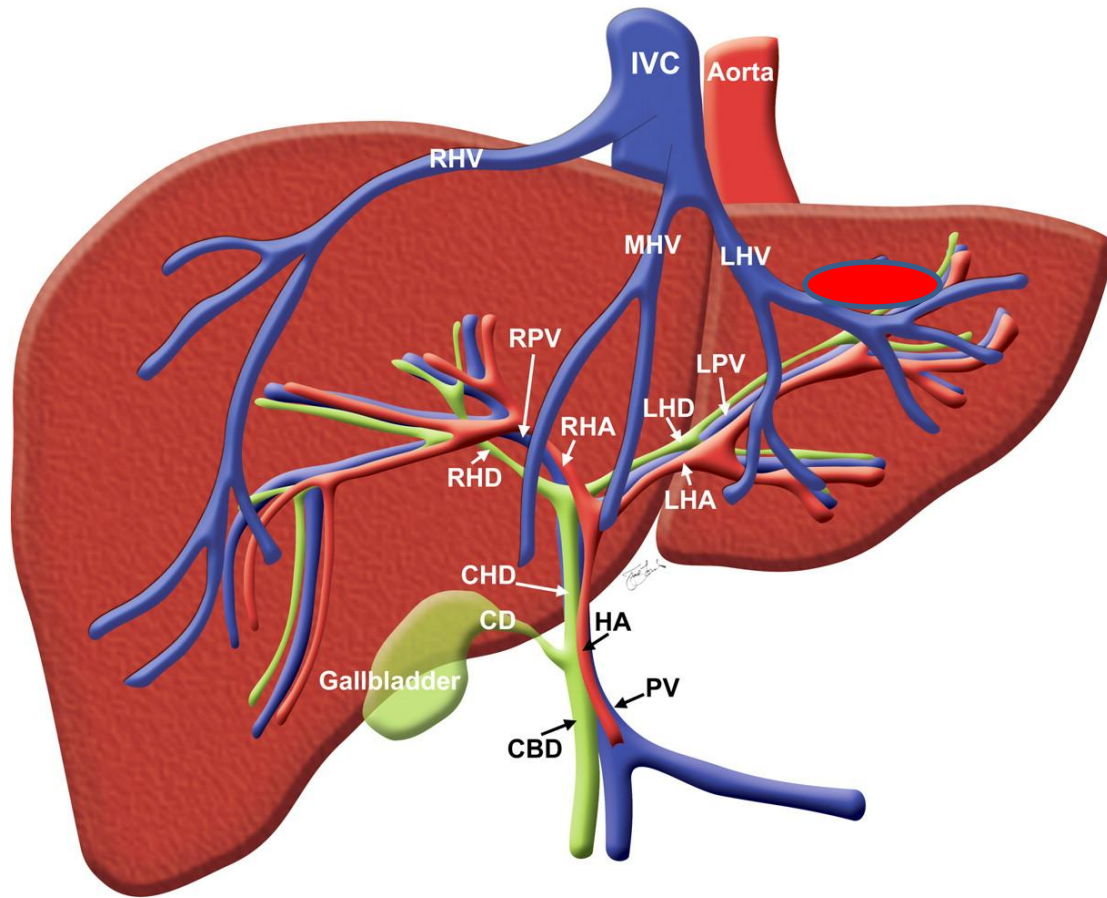


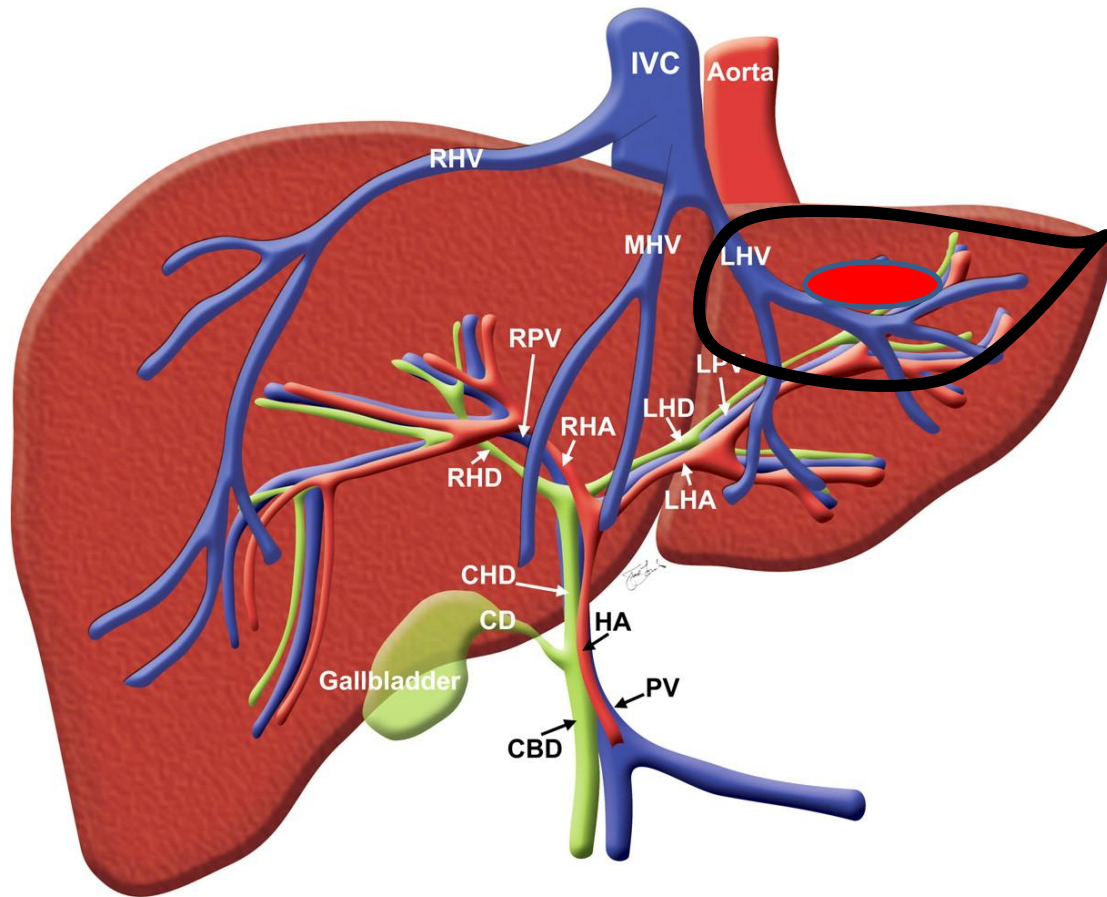


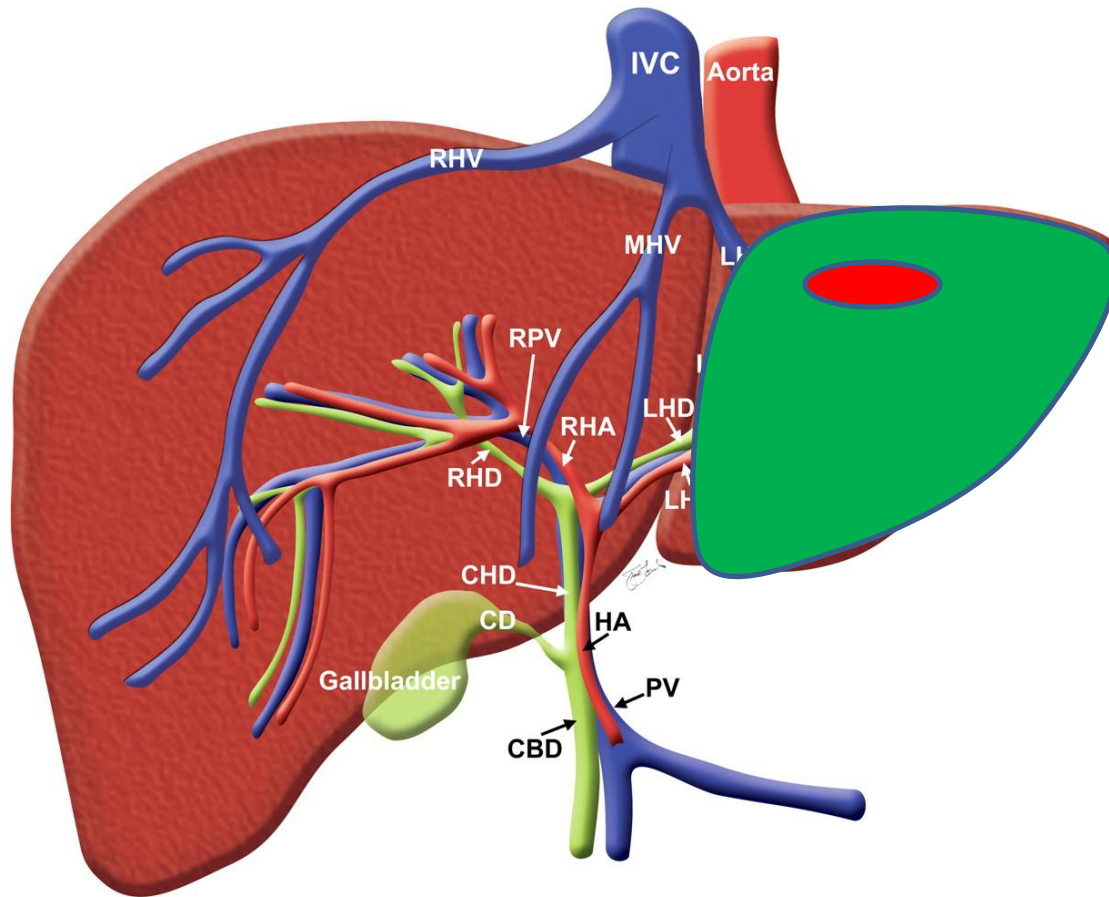


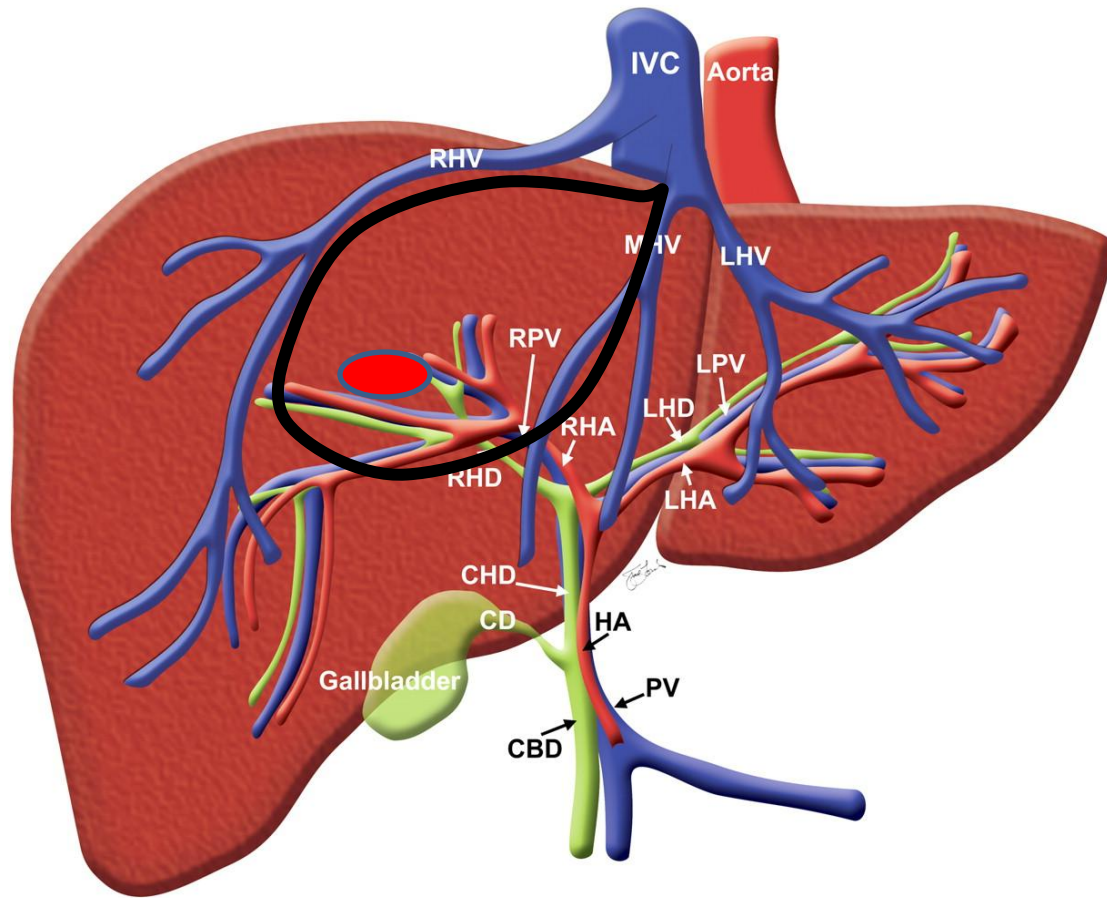


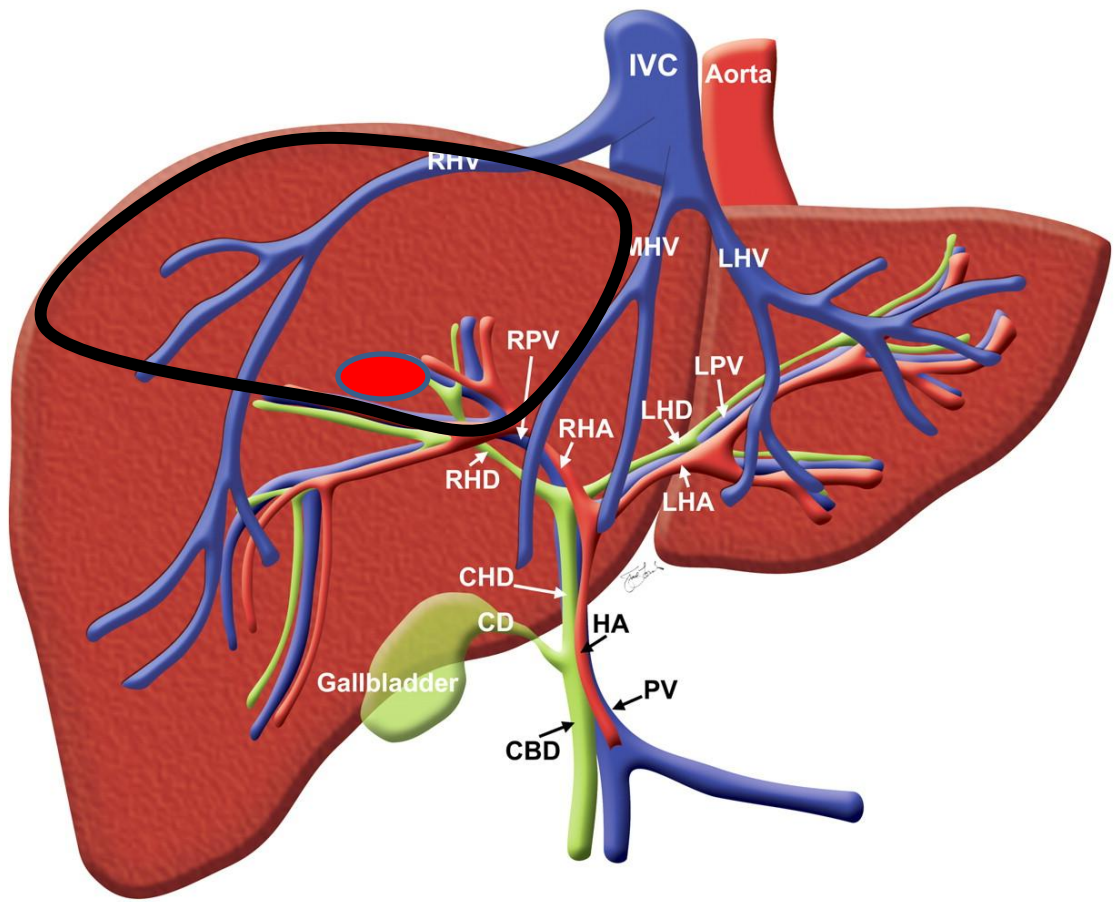


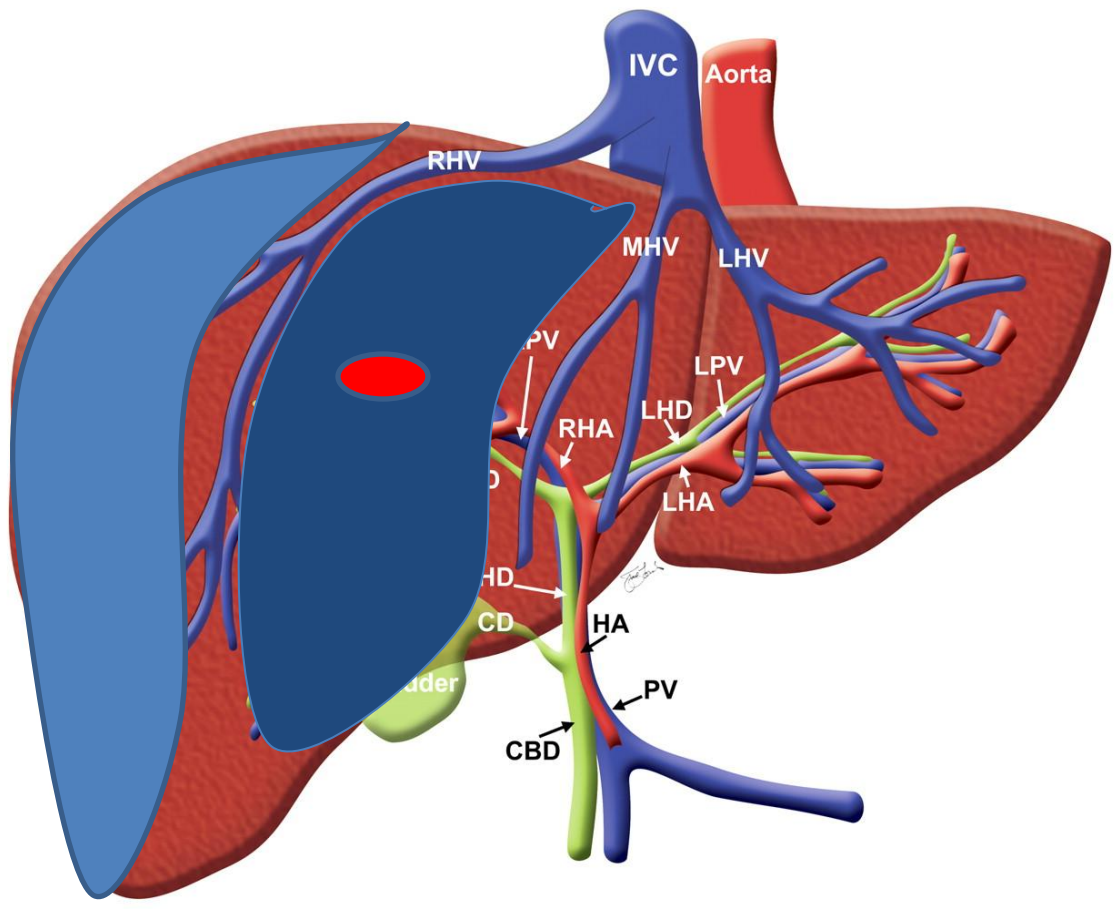


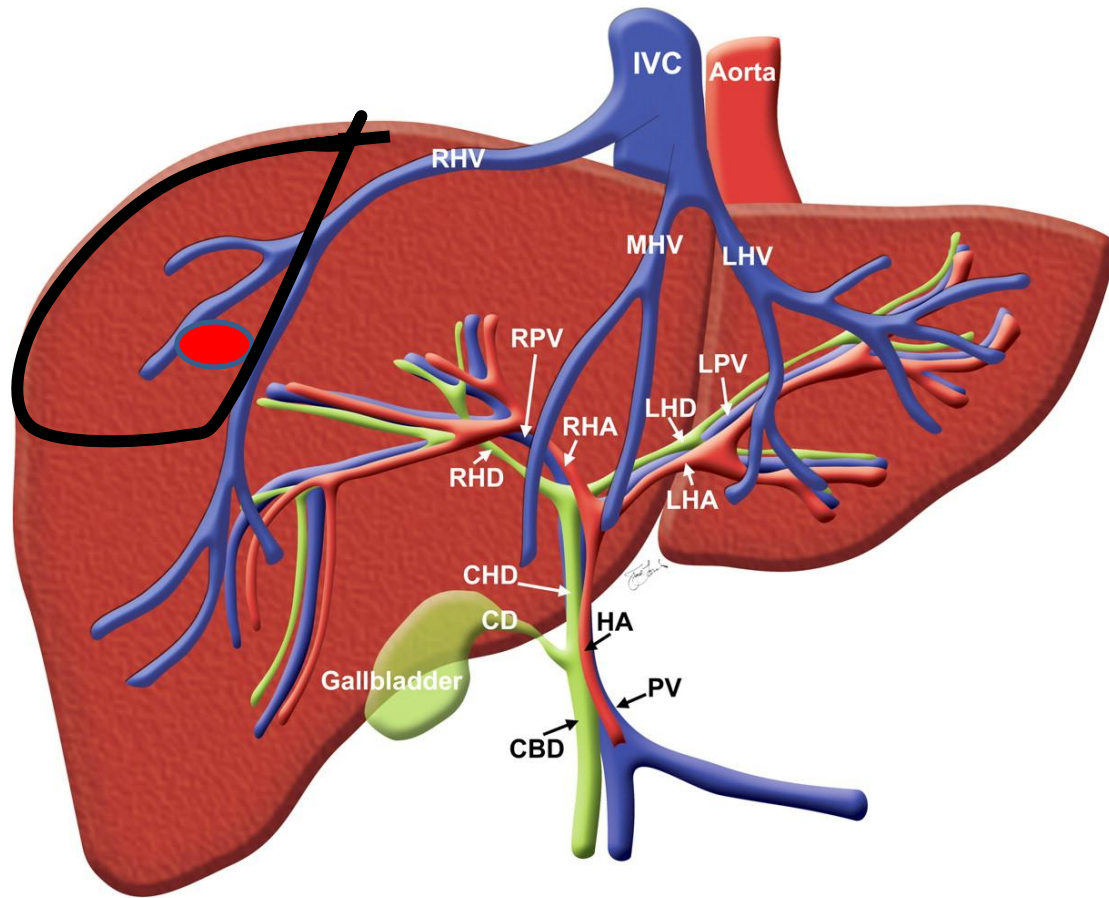


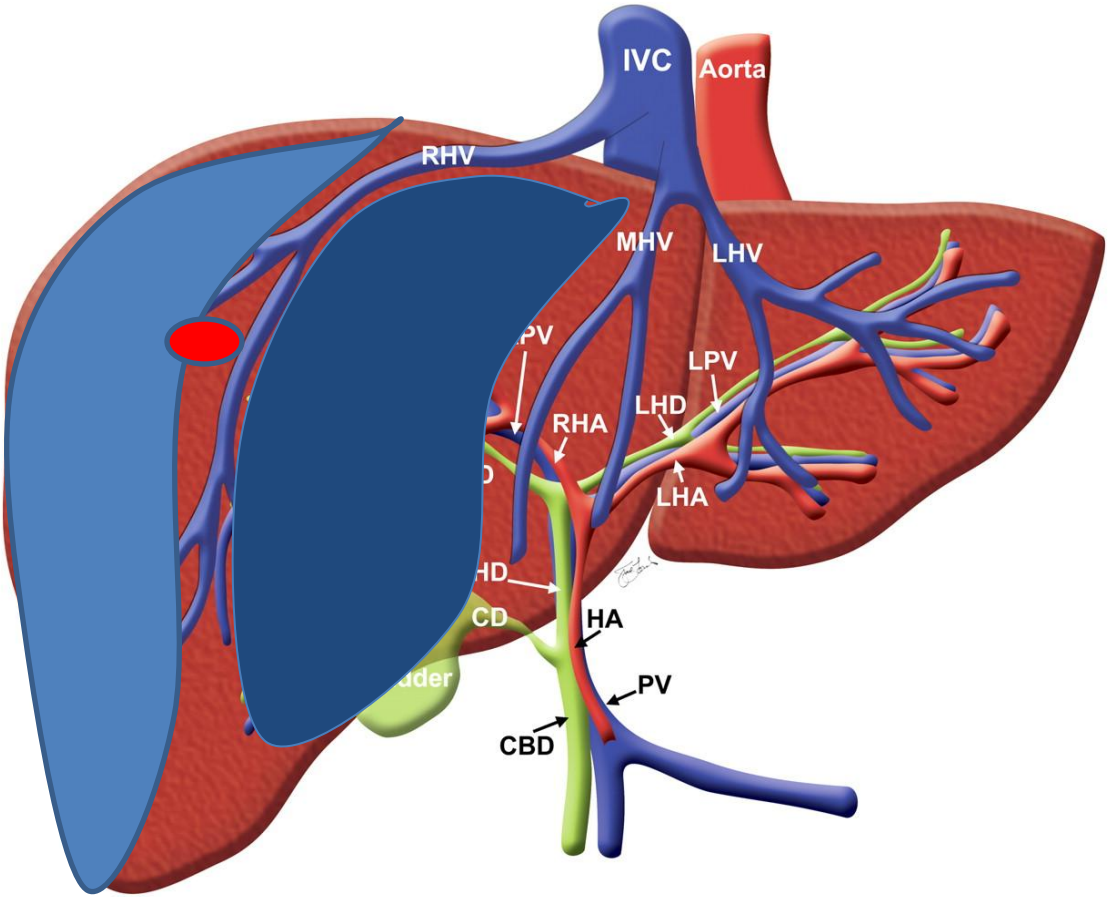


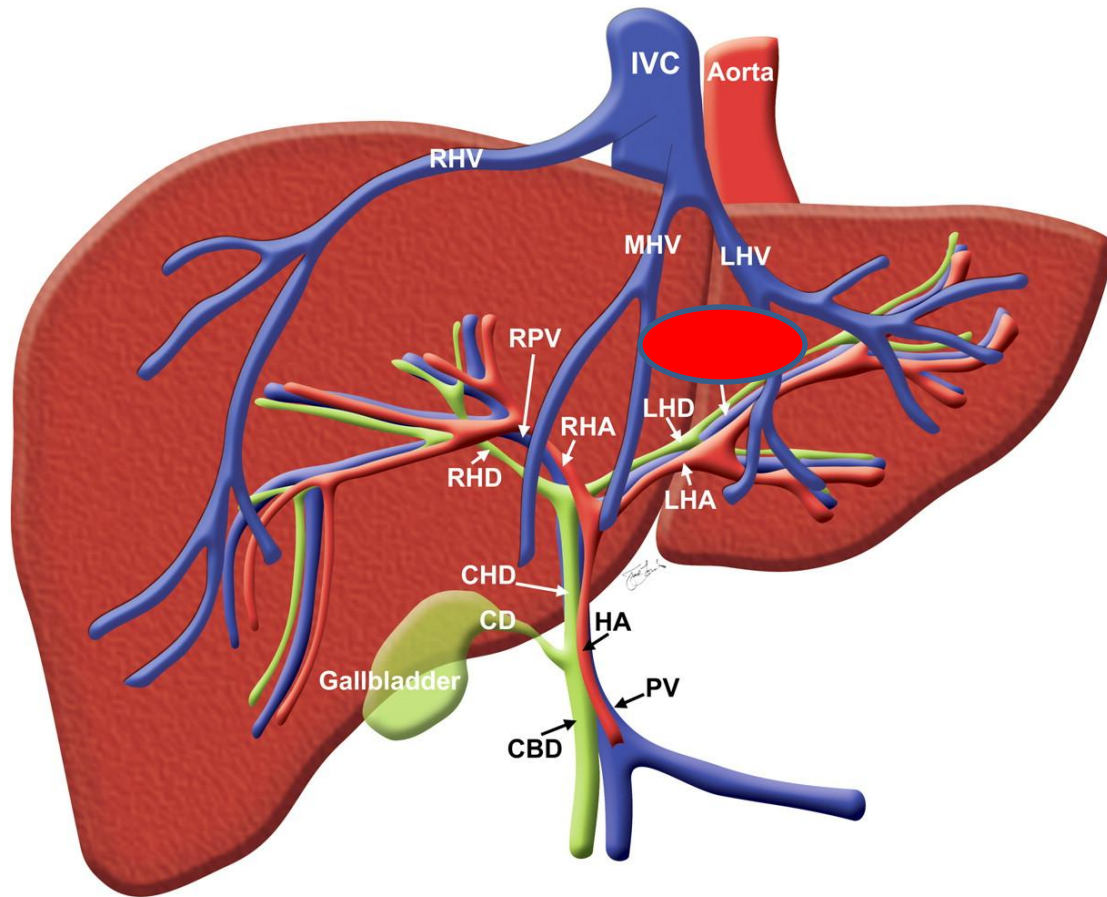


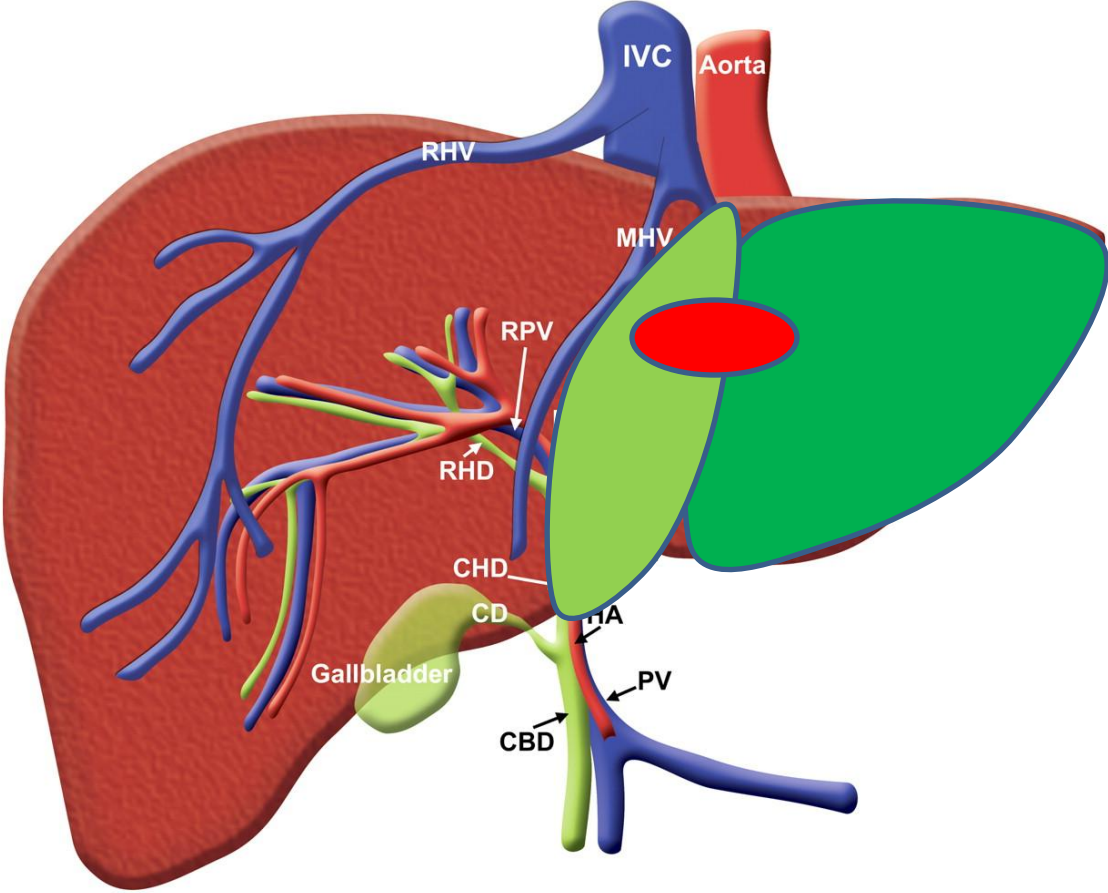








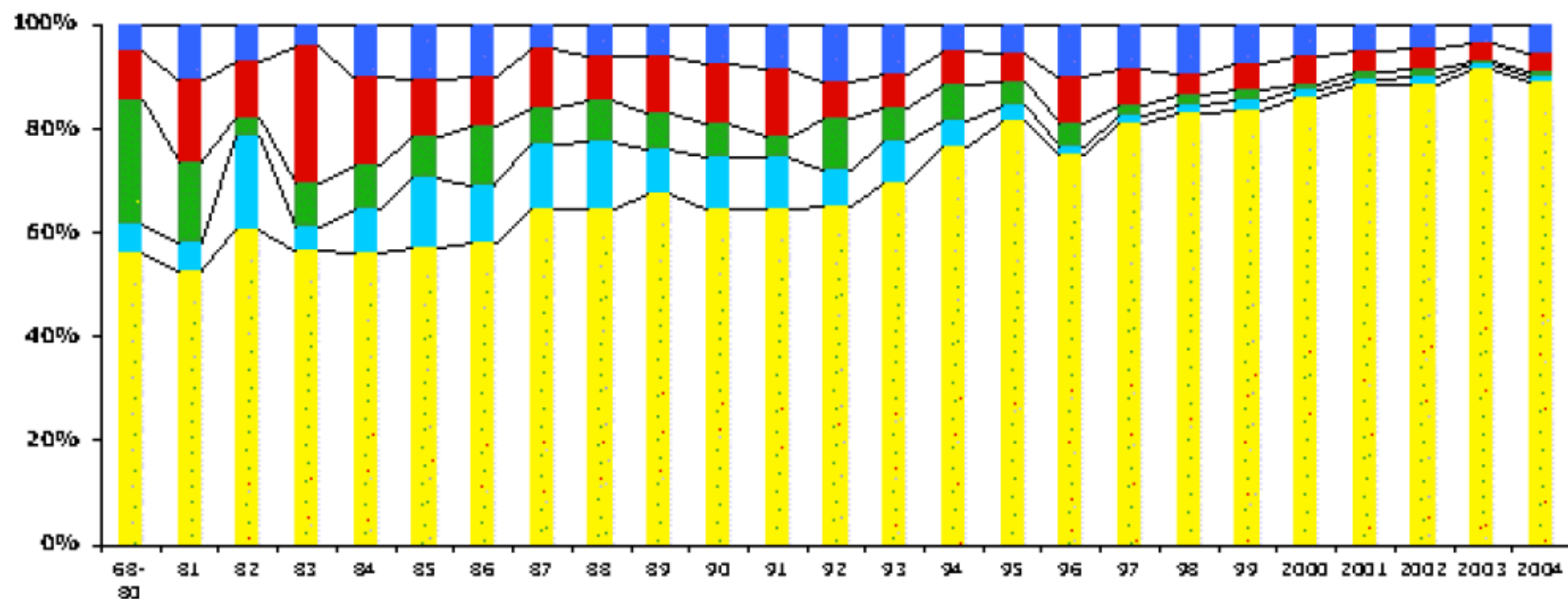




- Surgical techniques
 - Liver resection
 - Transplantation

Evolution of Primary Indications for Cancer

01/1968 - 12/2004



■ Hepatocellular carcinoma : 5622

■ Carcinoma biliary : 256

■ *Others : 480

■ Cholangiocellular carcinoma : 269

■ Metastases : 443

- Surgical techniques
 - Liver resection
 - Transplantation – generally reserved for HCC with cirrhosis

Transplantation criteria

Milan criteria

- Single tumour <5cm, less than 3 tumours with largest <3cm

UCSF criteria

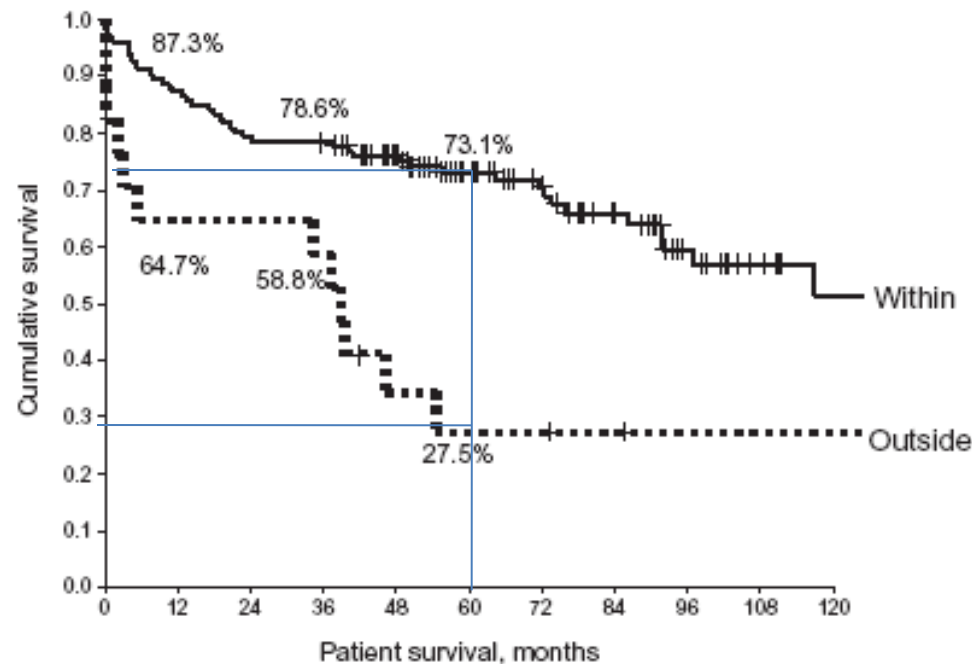
- Single tumour <6.5cm, less than 3 tumours with largest <4.5cm, total tumour size <8cm

Liver transplantation for HCC

Small vs Large

Poorer survival in patients whose explanted hepatocellular carcinoma (HCC) exceeds Milan or UCSF Criteria. An analysis of liver transplantation in HCC in Australia and New Zealand

John W.C. Chen¹, Lilian Kow¹, Deborah J. Verran², John L. McCall³, Stephen Munn³, Glenda A. Balderson⁴, Jonathan W. Fawcett⁴, Paul J. Gow⁵, Robert M. Jones⁵, Gary P. Jeffrey⁶, Anthony K. House⁶ & Simone I. Strasser²



Small hepatoma

Liver resection vs Transplantation

Resection for Hepatocellular Carcinoma is a Good Option in Child-Turcotte-Pugh Class A Patients With Cirrhosis Who Are Eligible for Liver Transplantation

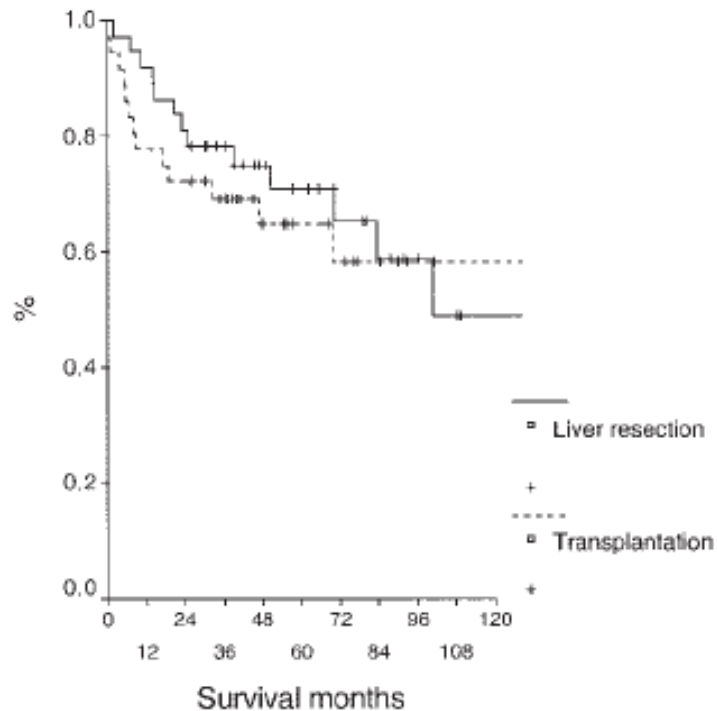
*Carlos Margarit,¹ Alfredo Escartín,¹ Lluís Castells,² Víctor Vargas,²
Elena Allende,³ and Itxarone Bilbao¹*

Small hepatoma

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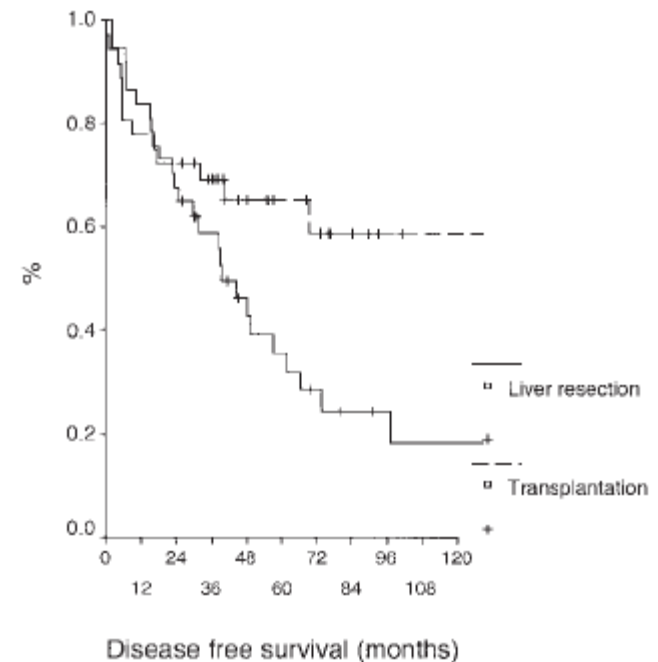
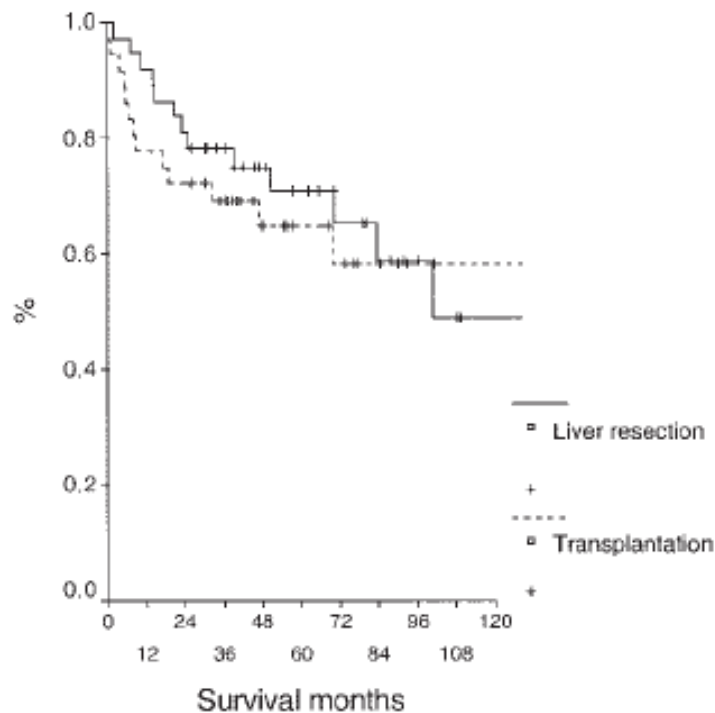


Small hepatoma

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Assessment of functional reserve

- Child –Pugh grade
 - Non cirrhotic liver – up to 75% can be resected
 - Child-Pugh grade A – 50%
 - Child-Pugh grade B – <25%
 - Child-Pugh grade C – contraindicated

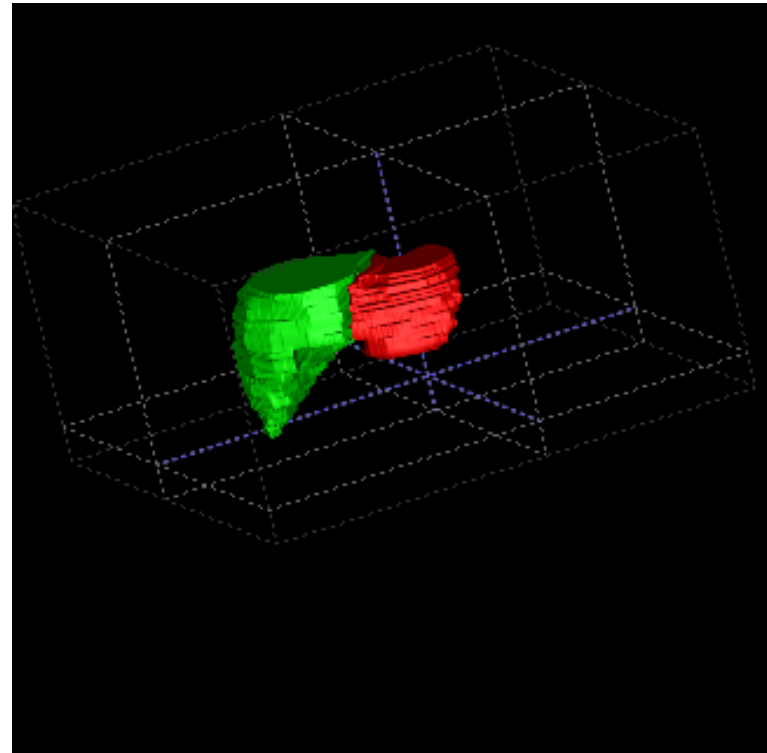
- Assess the future remnant liver reserve



- Assess the future remnant liver reserve



- Assess the future remnant liver reserve



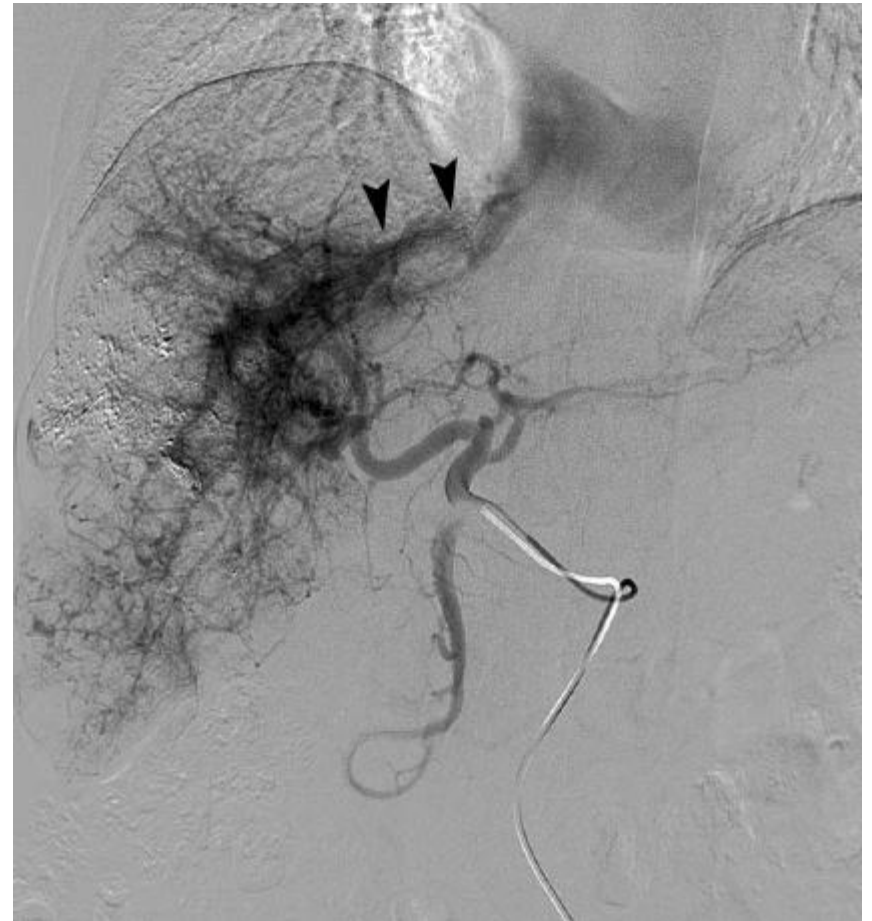
- Non surgical ablative techniques
 - TACE
 - PEI
 - RFA
 - Other techniques

- Non surgical ablative techniques
 - TACE generally reserved for hepatomas
 not suitable for other techniques
 - PEI - <2cm tumours
 - RFA 2-5cm tumours
 - Other techniques

TACE



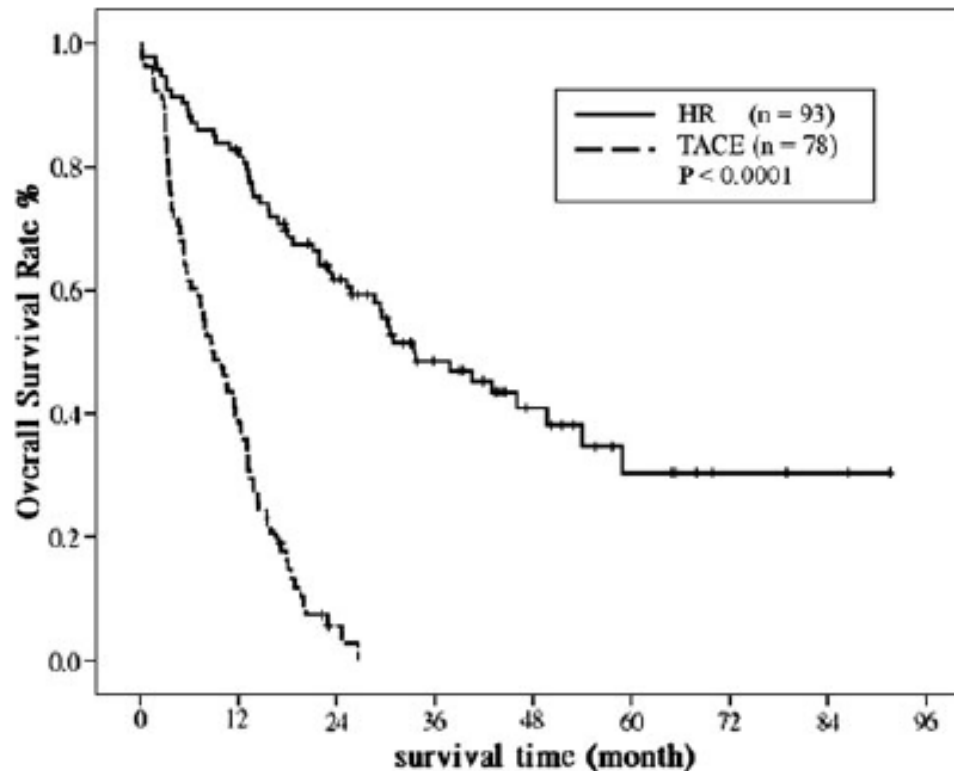
TACE





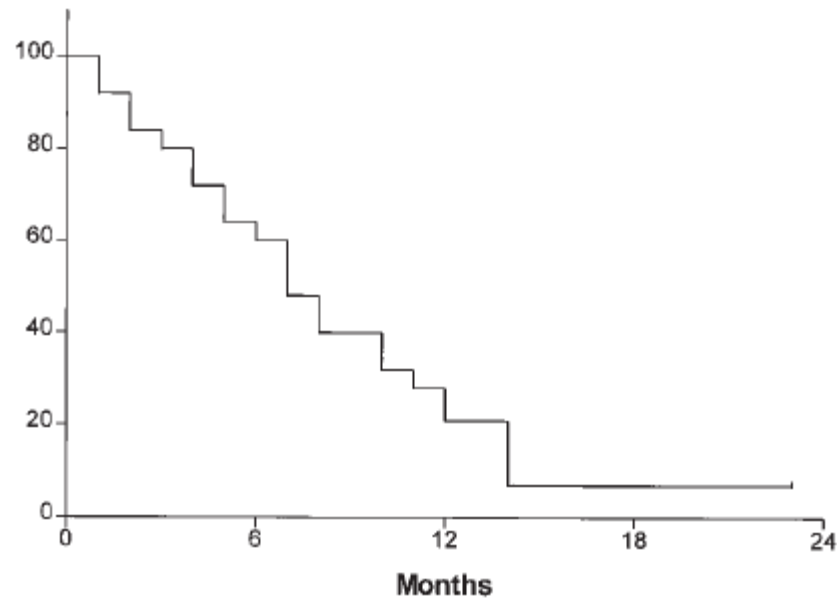


Comparing Hepatic Resection and Transarterial Chemoembolization for Barcelona Clinic Liver Cancer (BCLC) Stage B Hepatocellular Carcinoma: Change for Treatment of Choice?

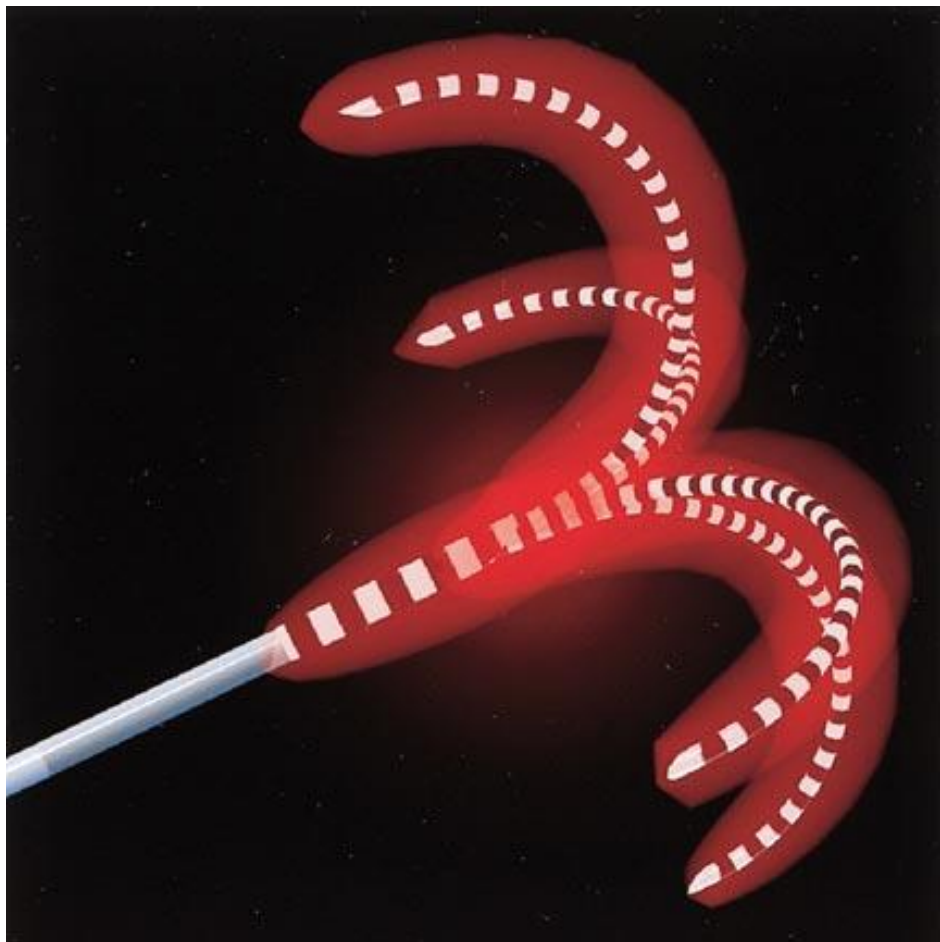


TACE for CRC metastases

Phase II Trial of Chemoembolization for the Treatment of Metastatic Colorectal Carcinoma to the Liver and Review of the Literature



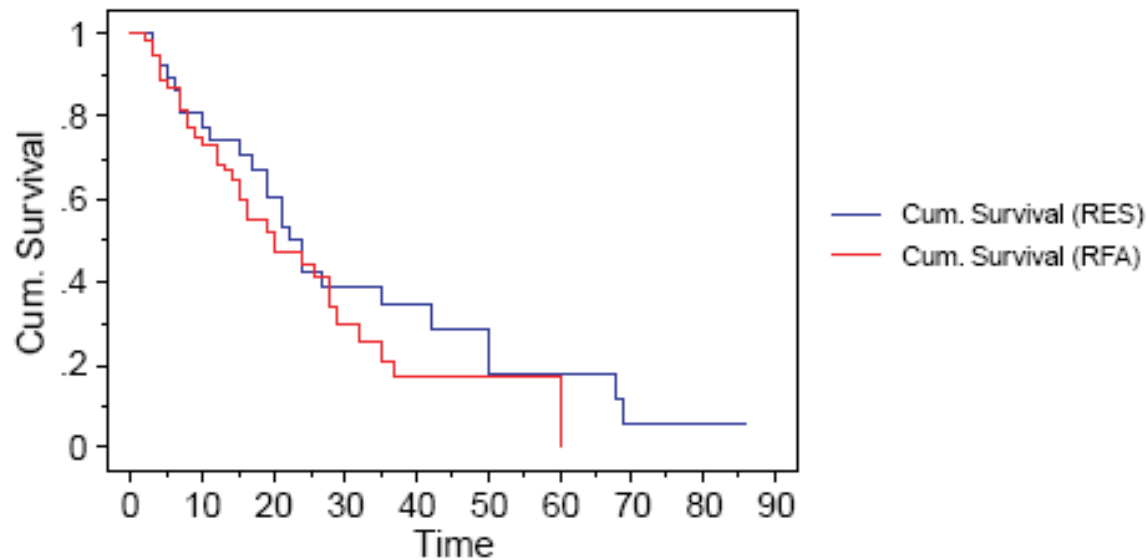
- Non surgical ablative techniques
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 - PEI - <2cm tumours
 - RFA 2-5cm tumours
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RFA vs Resection

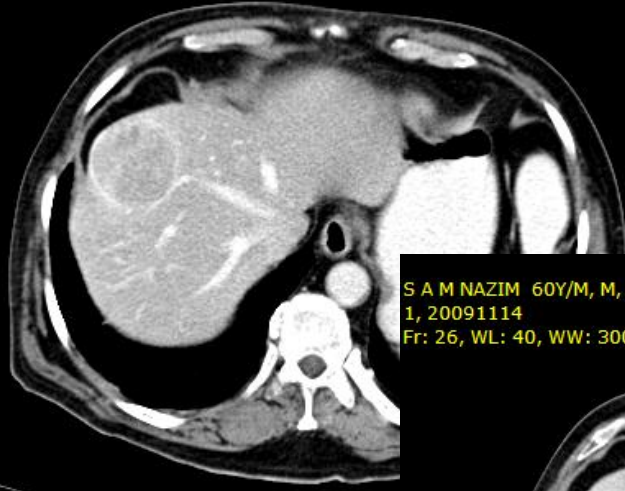
**Single hepatocellular carcinoma ranging from 3 to 5 cm:
radiofrequency ablation or resection?**

L. LUPO¹, P. PANZERA¹, G. GIANNELLI², M. MEMEO³, A. GENTILE⁴ & V. MEMEO¹



S A M NAZIM 60Y/M, M, 19491114
1, 20091114
Fr: 23, WL: 40, WW: 300

Lanka Hospitals
SIEMENS



Sensation 4
kV: 120
mA: 387
5 mm
Tilt: 0

S A M NAZIM 60Y/M, M, 19491114
1, 20091114
Fr: 26, WL: 40, WW: 300

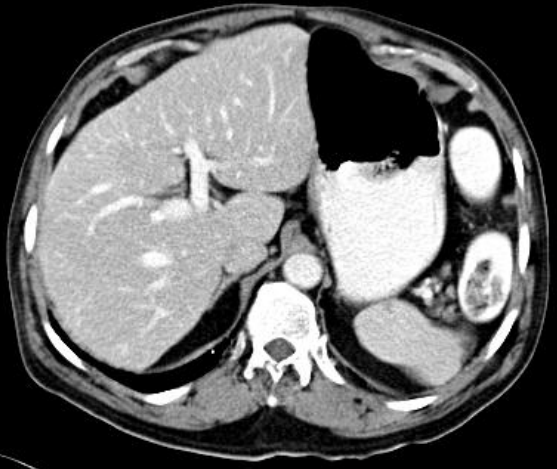
Lanka Hospitals
SIEMENS



Sensation 4
kV: 120
mA: 387
5 mm
Tilt: 0

S A M NAZIM 60Y/M, M, 19491114
1, 20091114
Fr: 31, WL: 40, WW: 300

Lanka Hospitals
SIEMENS



Sensation 4
kV: 120
mA: 387
5 mm
Tilt: 0

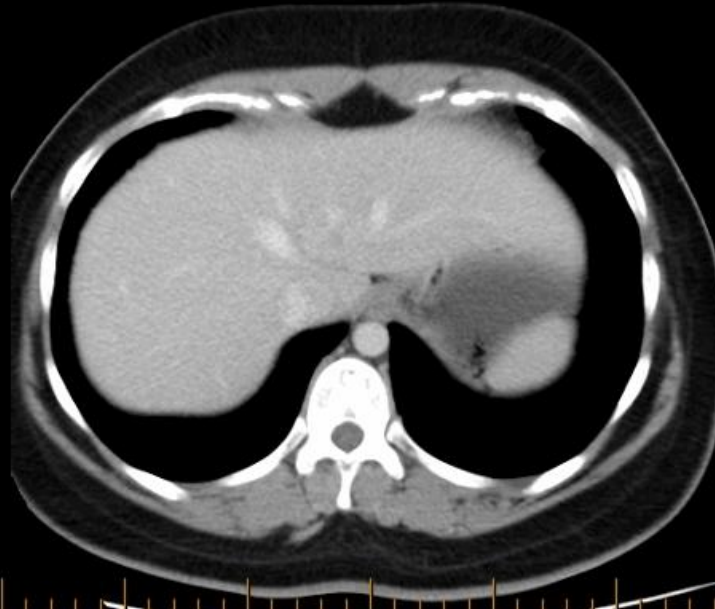
500 ms
DFOV: 403 mm

BENT-CT ABDOMEN
At: Portal Venous
Se: Dec 5, 2007 2:2:12 PM
Acc: #974191-CT
Se: CT #3
Im: 10205
120.0kVp
311mA
TH: 0.03deg



PERTH RAD CLINIC BENTLEY
[CLARKSON, KYLLIE]
[May 28, 1985]
[F] [022Y]
[JKG298Z]

BENT-CT
Average
Se: Dec
Acc: #974191-CT
Se: CT #500
Im: 440
120.0kVp
311mA

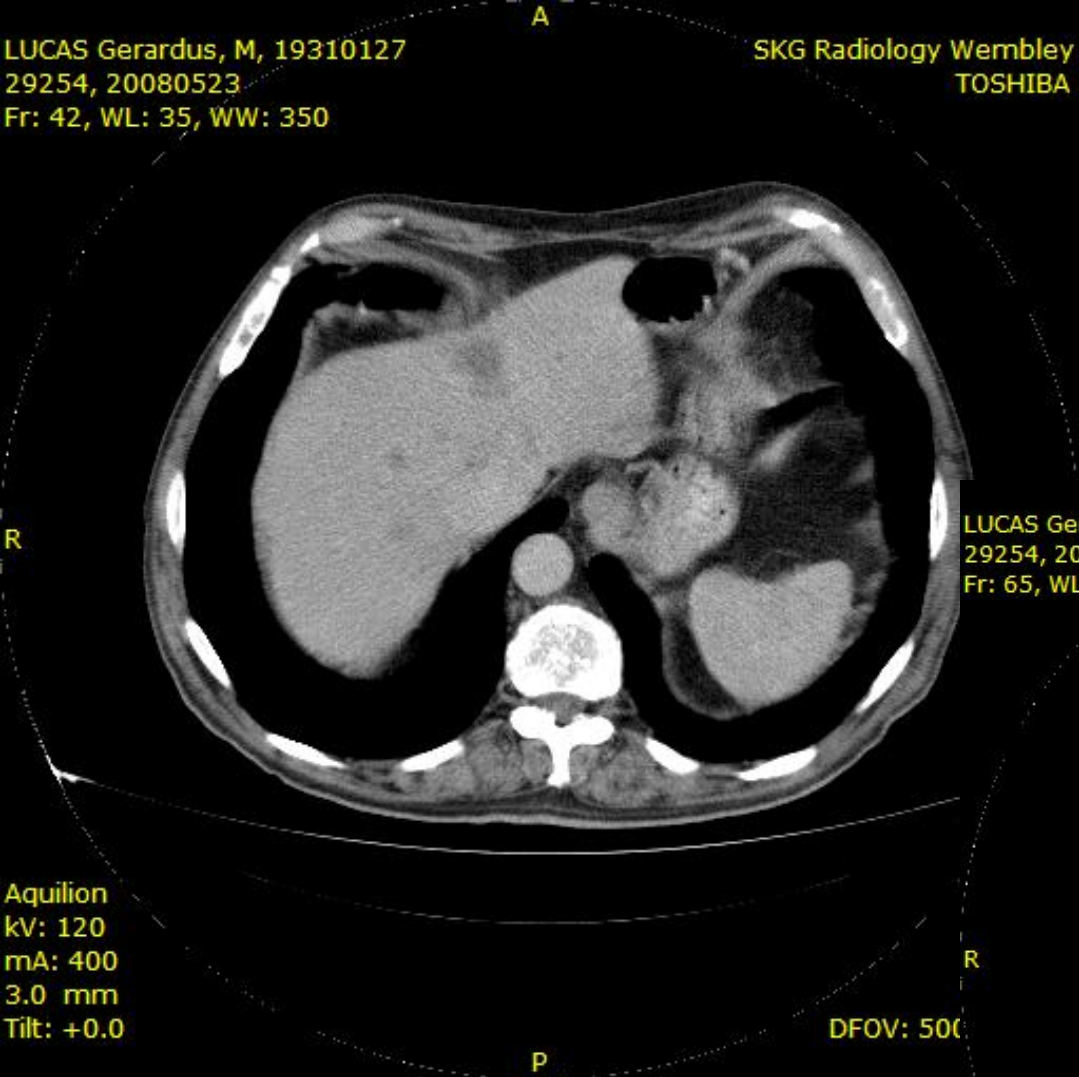


S12xS12
Zoom: 90 %
Compress: 1:1 (lossless)
W: 324 L: 34
5.0mm thick
[J [066Y]
[JKG298Z]

S12xS12
Zoom: 90 %
Compress: 1:1 (lossless)
W: 324 L: 34
10.0mm thick

LUCAS Gerardus, M, 19310127
29254, 20080523
Fr: 42, WL: 35, WW: 350

SKG Radiology Wembley
TOSHIBA

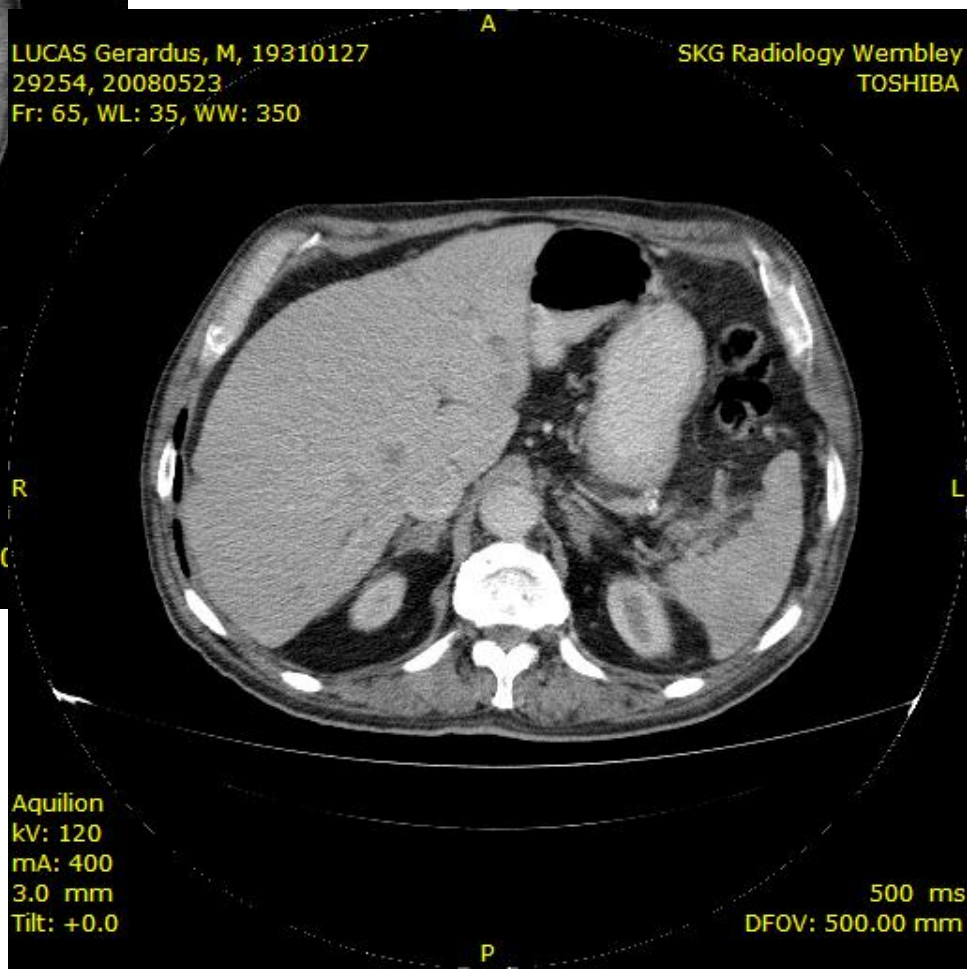


Aquilion
kV: 120
mA: 400
3.0 mm
Tilt: +0.0

DFOV: 500

LUCAS Gerardus, M, 19310127
29254, 20080523
Fr: 65, WL: 35, WW: 350

SKG Radiology Wembley
TOSHIBA

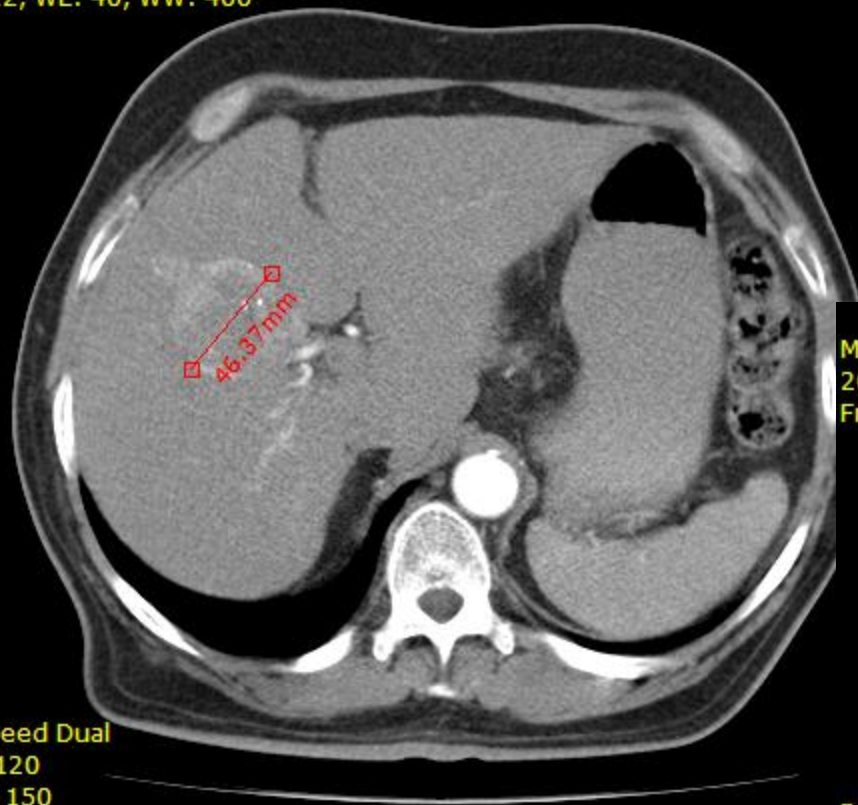


Aquilion
kV: 120
mA: 400
3.0 mm
Tilt: +0.0

500 ms
DFOV: 500.00 mm

MR.S.O.SALY, M
2086, 20100115
Fr: 12, WL: 40, WW: 400

HEMAS WATTALA SRI LANKA
GE MEDICAL SYSTEMS



HiSpeed Dual
kV: 120
mA: 150
5.0 mm
Tilt: +0.0

DFOV: 380.0000

MR.S.O.SALY, M
2086, 20100115
Fr: 18, WL: 40, WW: 400

HEMAS WATTALA SRI LANKA
GE MEDICAL SYSTEMS



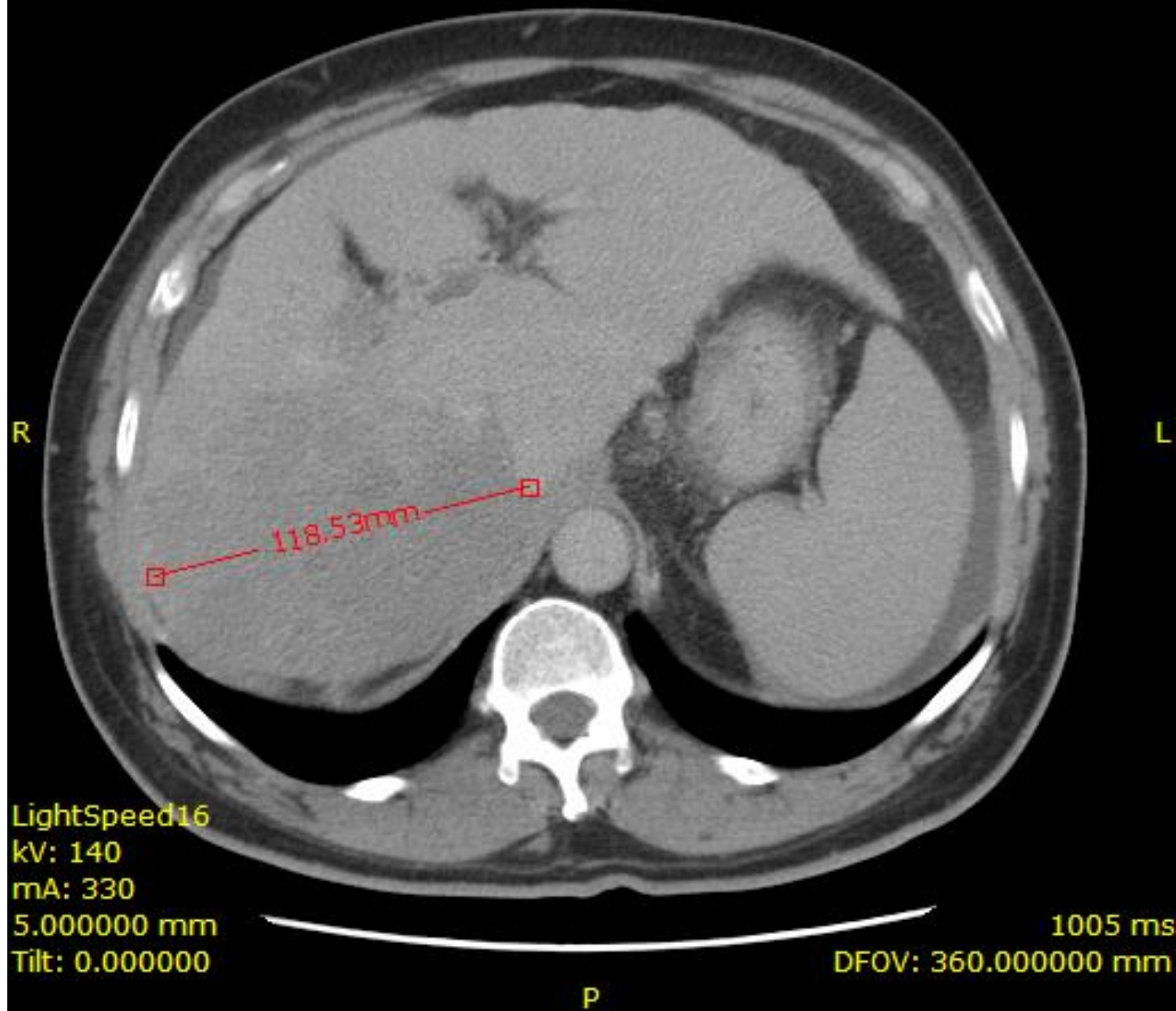
HiSpeed Dual
kV: 120
mA: 146
5.0 mm
Tilt: +0.0

1000 ms
DFOV: 380.0000000 mm

A

ASIRI HOSPITAL COLOMBO
GE MEDICAL SYSTEMS

Fr: 15, WL: 40, WW: 400



FILAMINA MERY, F
18419, 20100301
Fr: 18, WL: 40, WW: 400

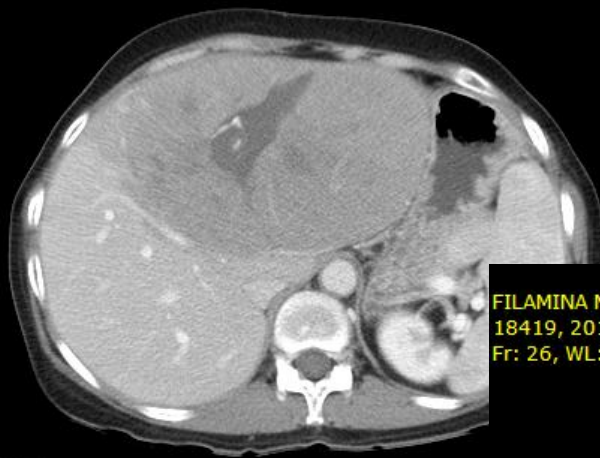
ASIRI SURGICAL HOSPITAL COLOMBO
GE MEDICAL SYSTEMS



LightSpeed VCI
kV: 120
mA: 350
5.000000 mm
Tilt: 0.000000

FILAMINA MERY, F
18419, 20100301
Fr: 18, WL: 40, WW: 400

ASIRI SURGICAL HOSPITAL COLOMBO
GE MEDICAL SYSTEMS



LightSpeed VCI
kV: 120
mA: 350
5.000000 mm
Tilt: 0.000000

FILAMINA MERY, F
18419, 20100301
Fr: 26, WL: 40, WW: 400

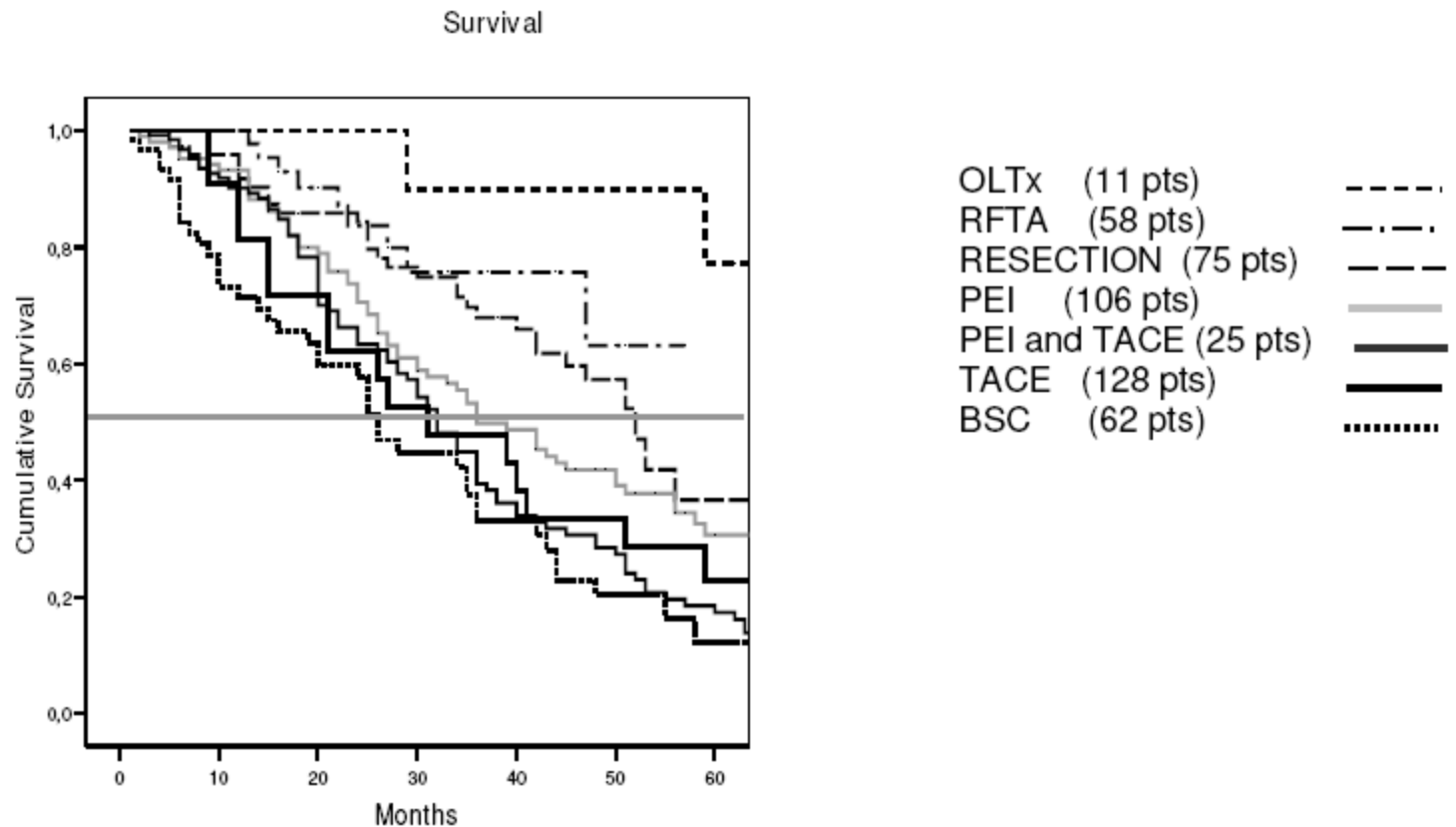
ASIRI SURGICAL HOSPITAL COLOMBO
GE MEDICAL SYSTEMS



LightSpeed VCI
kV: 120
mA: 350
5.000000 mm
Tilt: 0.000000

500 ms
DFOV: 360.000000 mm

HCC <5cm



**YOU MAY
NOT NEED
A LIVER
TRANSPLANT
AFTER ALL.**

**I'LL
DRINK
TO THAT!**



B. 1/08