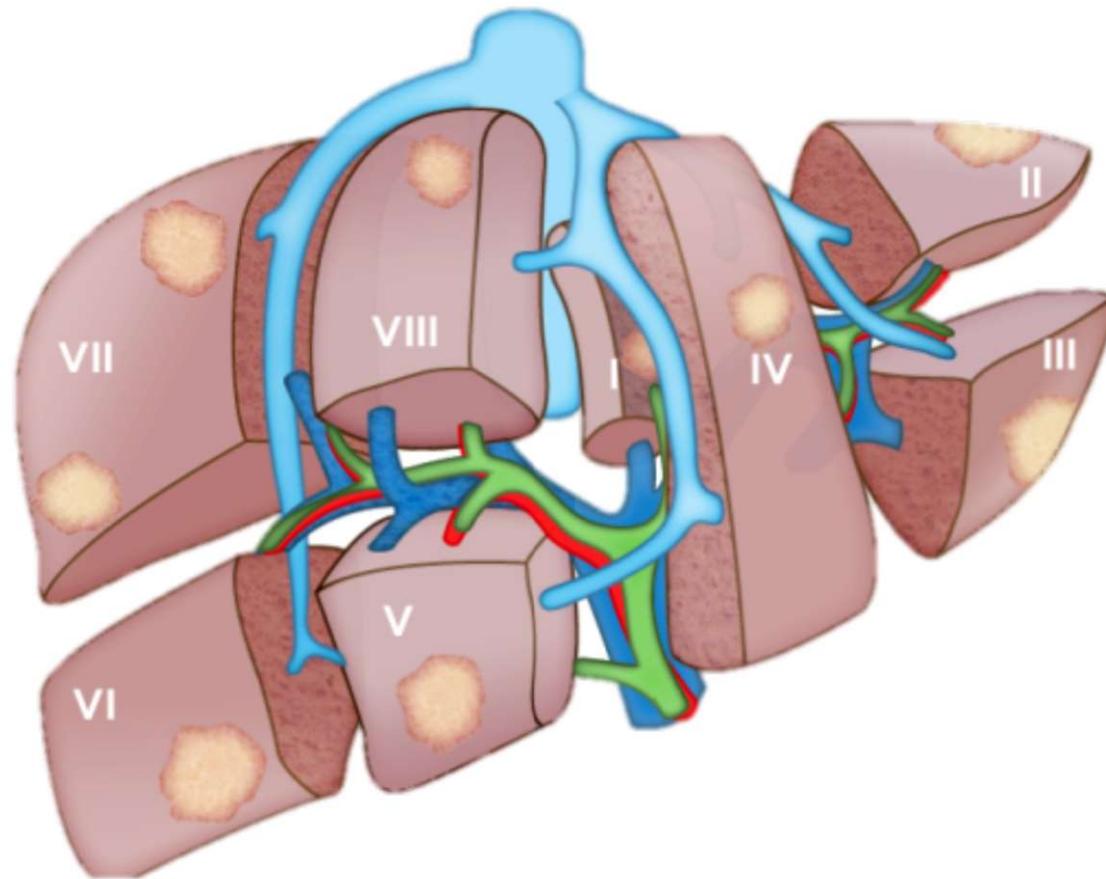
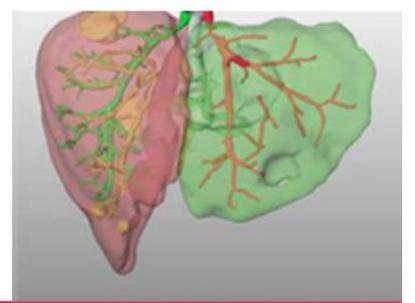


ALPPS: indicações

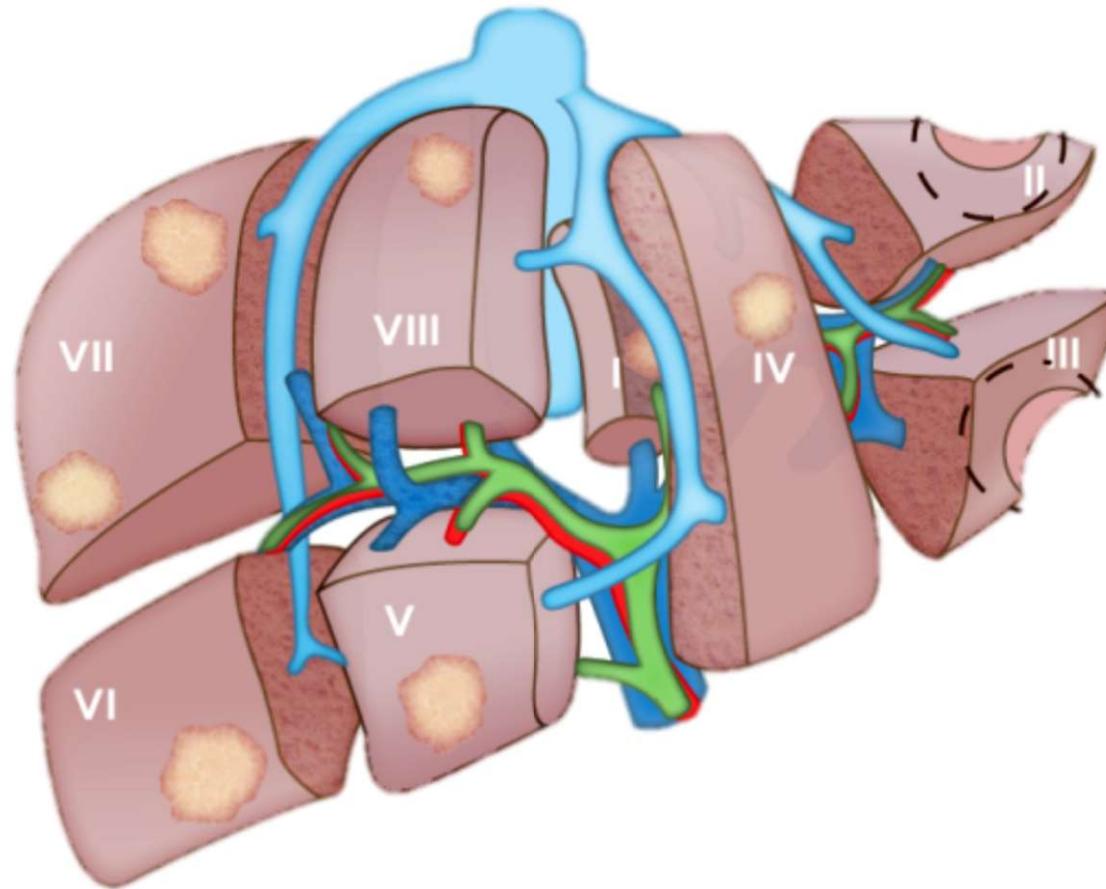
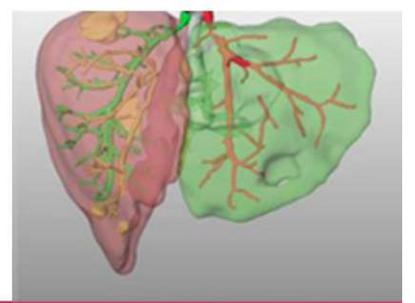
...e seleção de pacientes

Orlando Jorge M. Torres
Professor Livre-Docente
Núcleo de Estudos do Fígado - UFMA

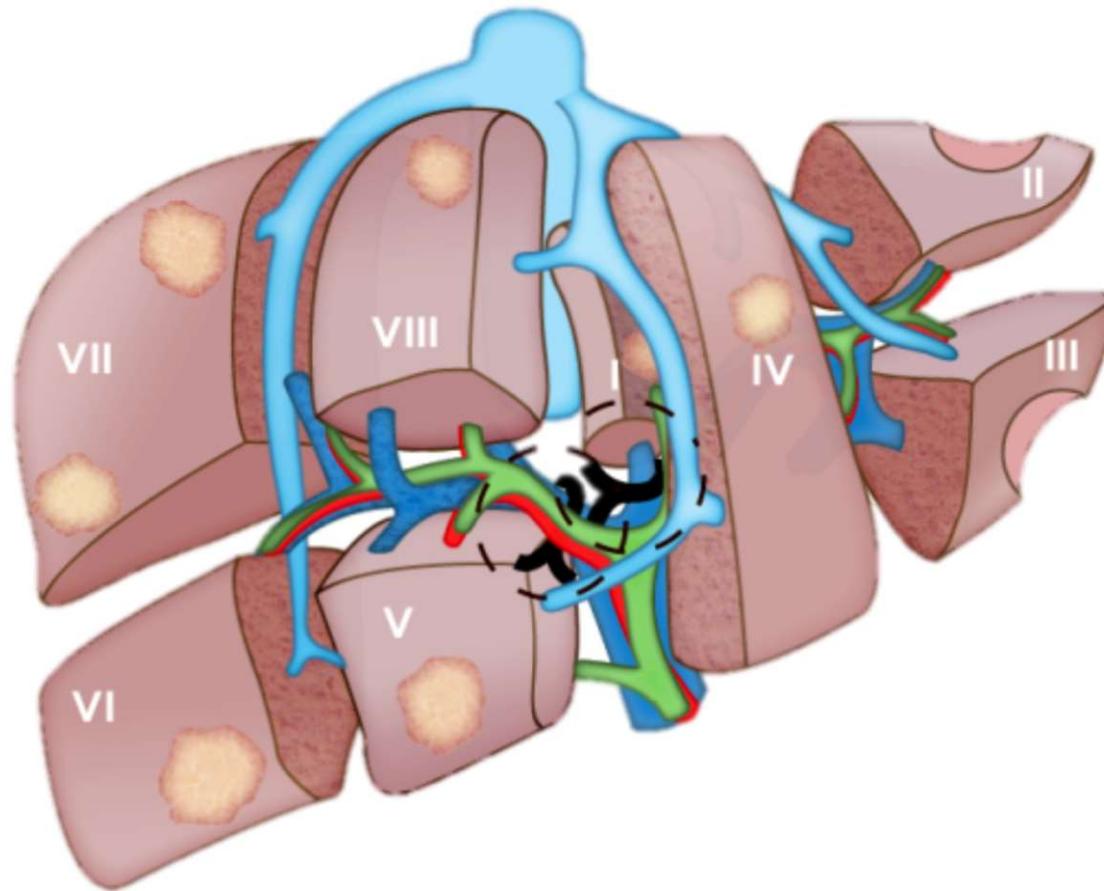
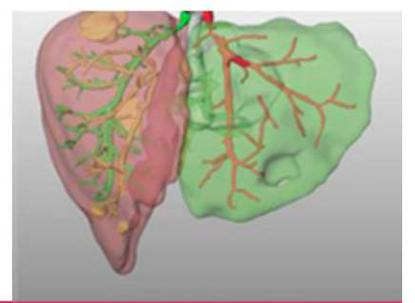
ALPPS



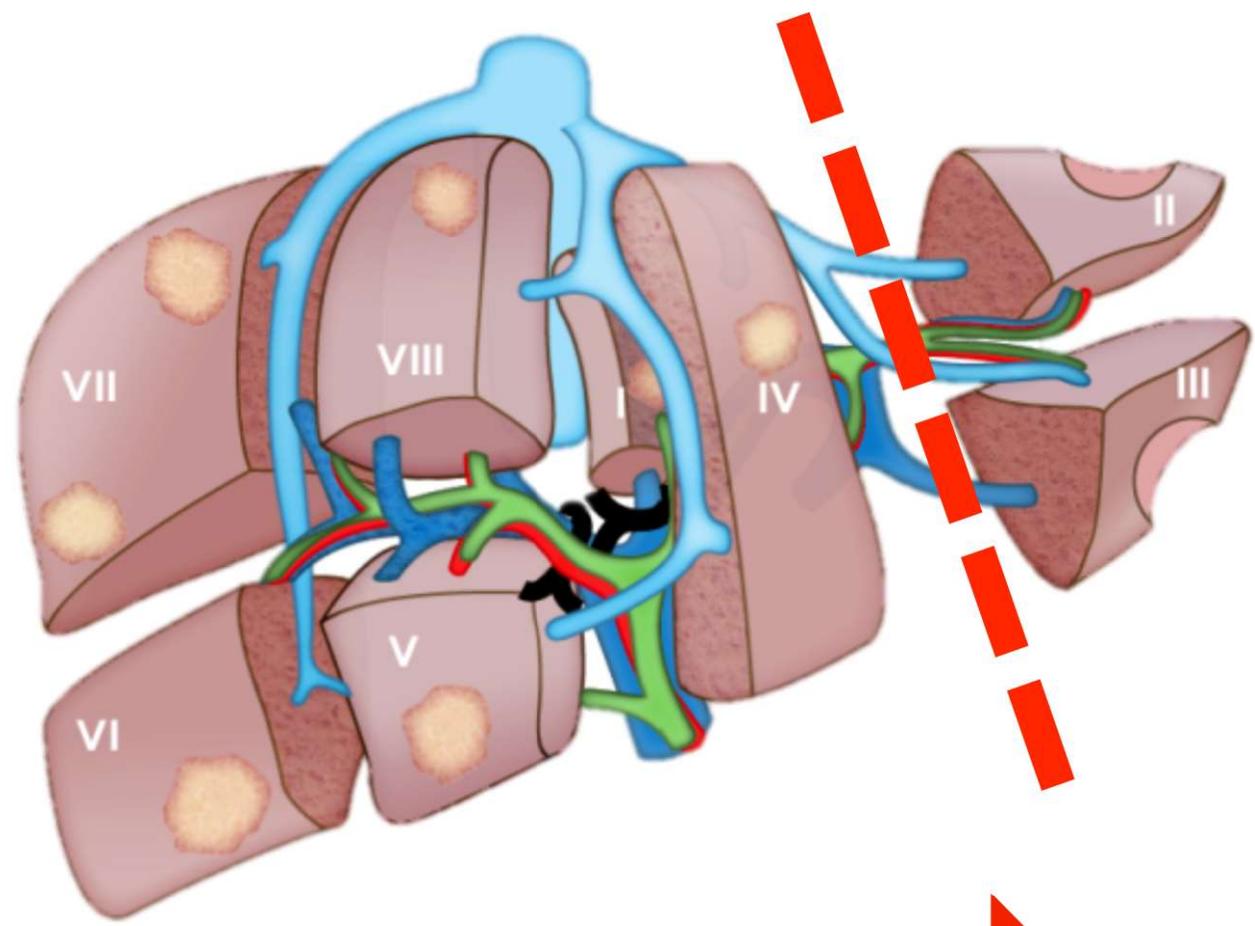
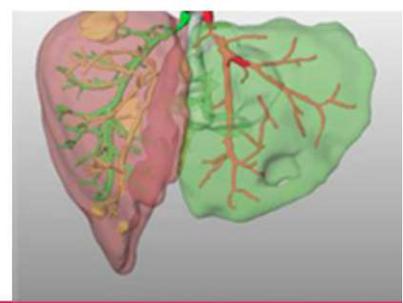
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ALPPS

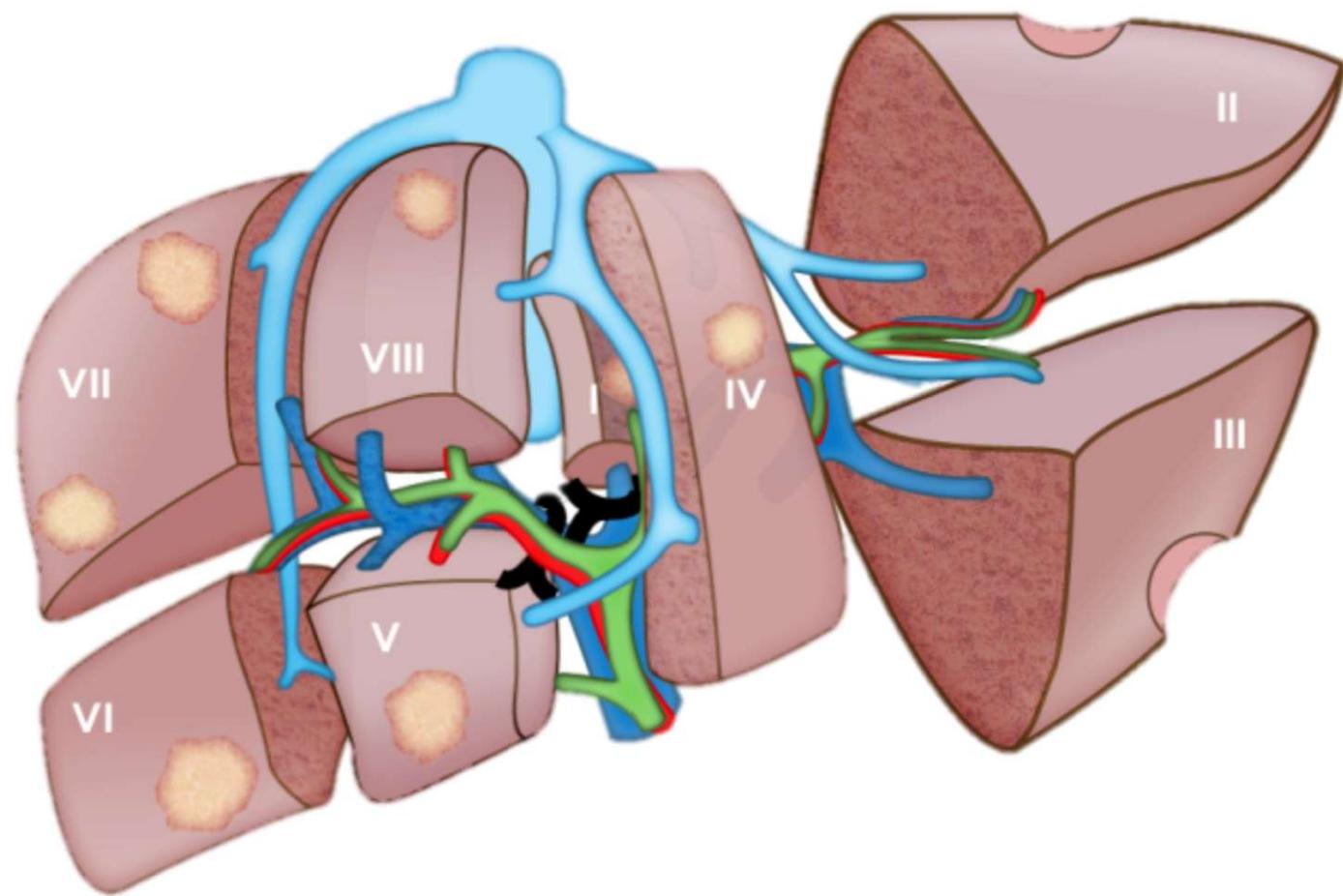
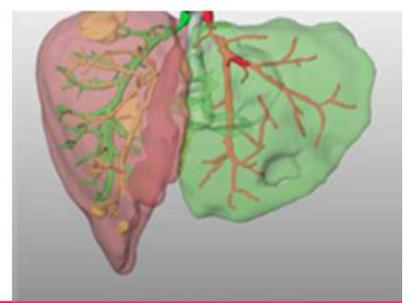


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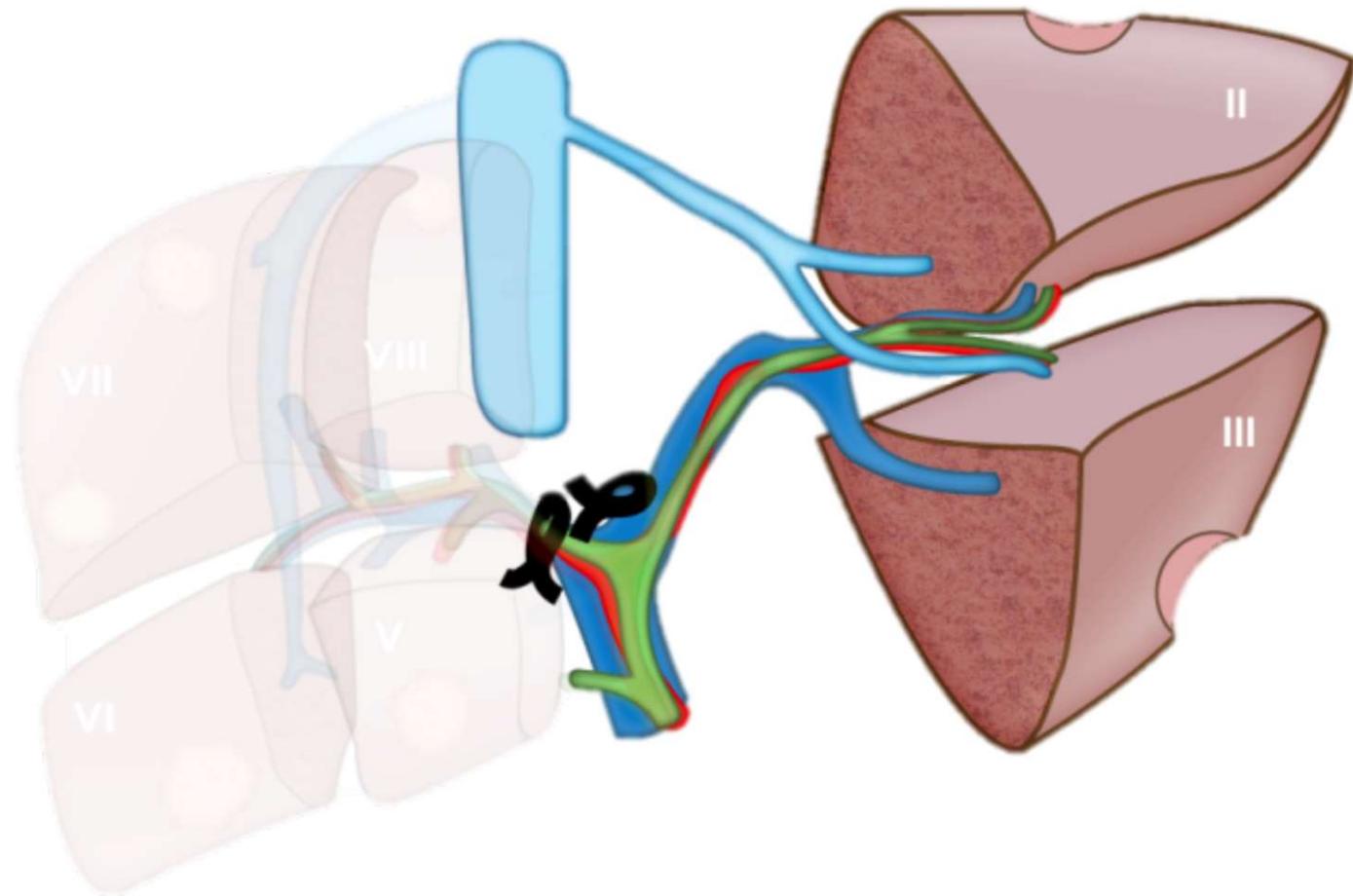
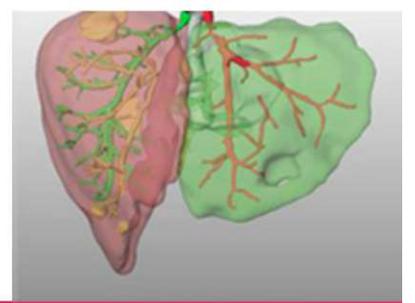


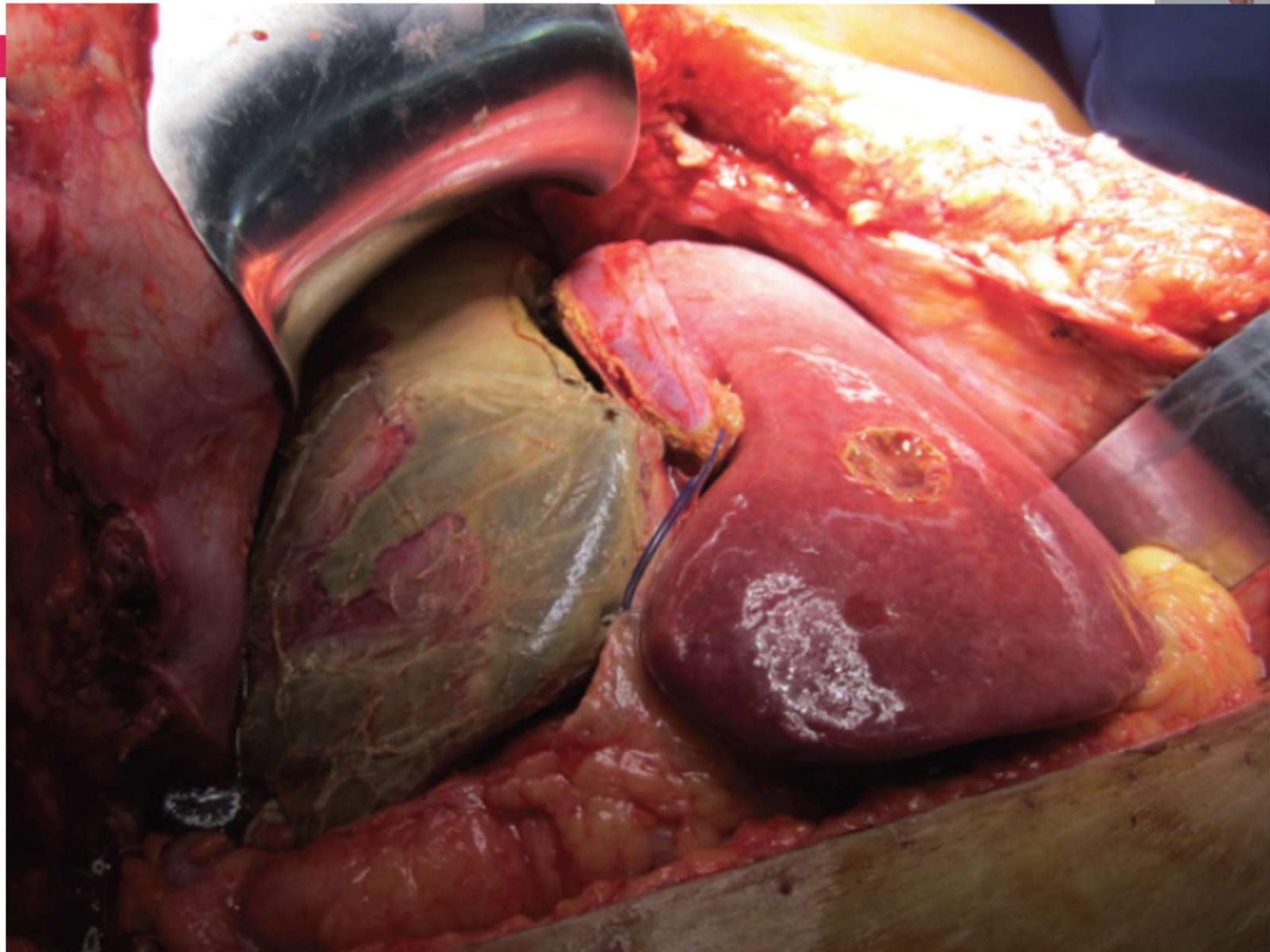
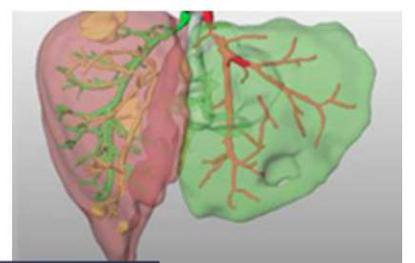
7 days

ALPPS

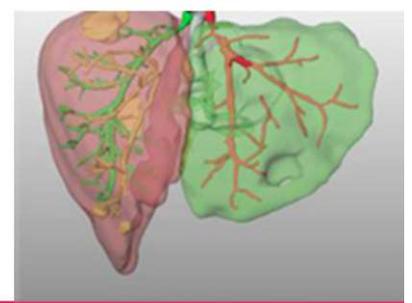


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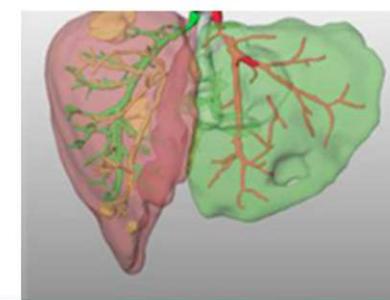




ALPPS



- ❑ Hipertrofia do RHF superior à E/LVP, maior factibilidade para ressecção R0.
- ❑ Adequada estratificação da doença no 1º procedimento.
- ❑ Permite limpeza agressiva do RHF.
- ❑ Ressecção simultânea na primeira operação em doença sincrônica.
- ❑ O intervalo curto torna pouco provável a progressão tumoral.
- ❑ Na progressão tumoral no hemifígado doente, não há invasão por contiguidade.
- ❑ Alternativa naqueles que não alcançaram hipertrofia suficiente após a E/LVP.



Right Portal Vein Ligation Combined With In Situ Splitting Induces Rapid Left Lateral Liver Lobe Hypertrophy Enabling 2-Stage Extended Right Hepatic Resection in Small-for-Size Settings

Andreas A. Schnitzbauer, MD, Sven A. Lang, MD,* Holger Goessmann, MD,† Silvio Nadalin, MD,§
Janine Baumgart, MD,|| Stefan A. Farkas, MD,* Stefan Fichtner-Feigl, MD,* Thomas Lorf, MD,¶
Armin Goralczyk, MD,¶ Rüdiger Hörbelt, MD,# Alexander Kroemer, MD,* Martin Loss, MD,* Petra Rümmele, MD,‡
Marcus N. Scherer, MD,* Winfried Padberg, MD,# Alfred Königsrainer, MD,§ Hauke Lang, MD,||
Aiman Obed, MD,¶ and Hans J. Schlitt, MD**

ABCDDV/898

ABCD Arq Bras Cir Dig
2013;26(1):40-43

Original Article

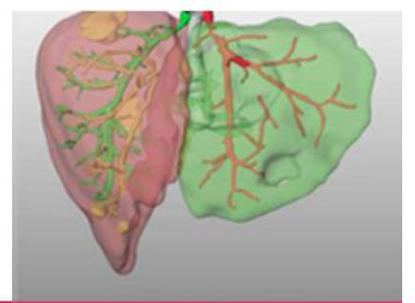
ASSOCIATING LIVER PARTITION AND PORTAL VEIN LIGATION FOR STAGED HEPATECTOMY (ALPPS): THE BRAZILIAN EXPERIENCE

Ligadura da veia porta associada à bipartição do fígado para hepatectomia em dois estágios (ALPPS): experiência Brasileira

Orlando Jorge Martins TORRES¹, Eduardo de Souza Martins **FERNANDES**², Cassio Virgílio Cavalcante **OLIV**
Cristiano Xavier **LIMA**⁴, Fabio Luiz **WAECHTER**⁵, Jose Maria Assunção **MORAES-JUNIOR**¹,
Marcelo Moura **LINHARES**⁶, Rinaldo Danese **PINTO**⁷, Paulo **HERMAN**⁸, Marcel Autran Cesar **MACHAD**

12 e 12,8% Mortalidade



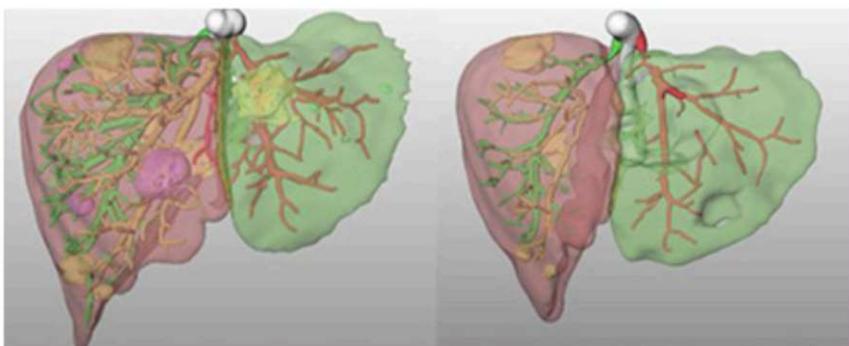


J Gastrointest Canc
DOI 10.1007/s12029-015-9691-6

MGMT. OF COMPLEX CASES IN GI ONCOLOGY

High Mortality Rates After ALPPS: the Devil Is the Indication

**Paulo Herman • Jaime Arthur Pirola Krüger •
Marcos Vinícius Perini • Fabrício Ferreira Coelho •
Ivan Ceconello**



1 st International Consensus Meeting on ALPPS

February 27th and 28th 2015, Hamburg, Germany

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Karl J. Oldhafer



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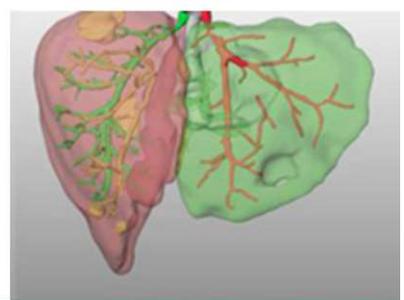


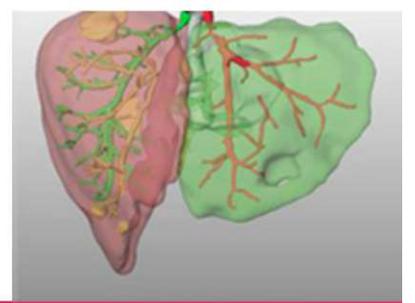
European-African Hepato-Pancreato-Biliary Association

Supported with a grant of DFG

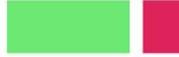
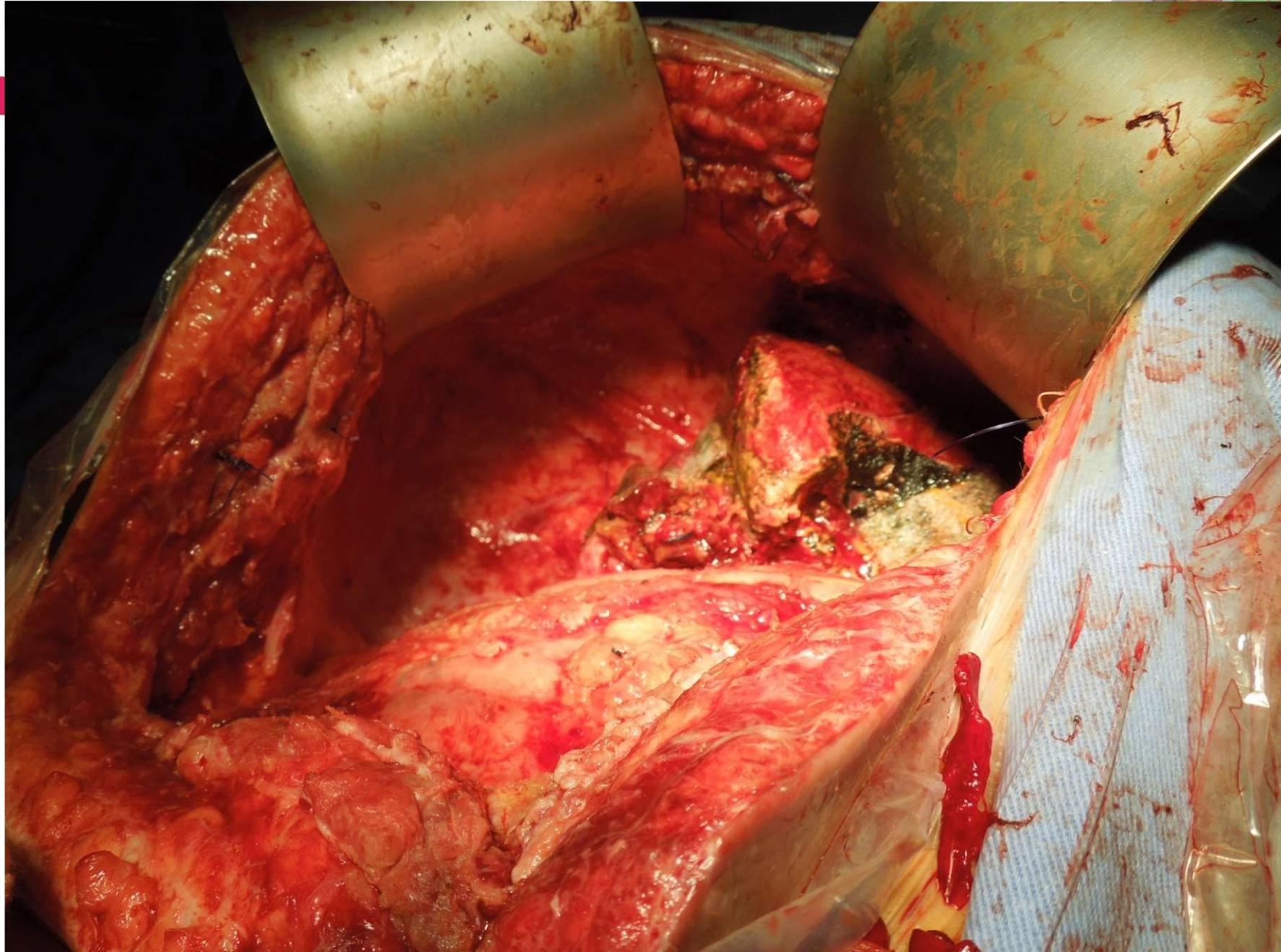
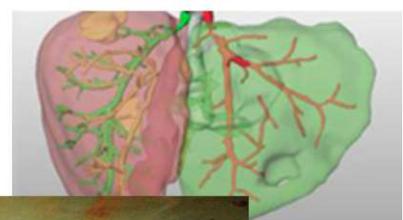
DFG Deutsche
Forschungsgemeinschaft

Brazil





HEPATECTOMIA DIREITA AMPLIADA



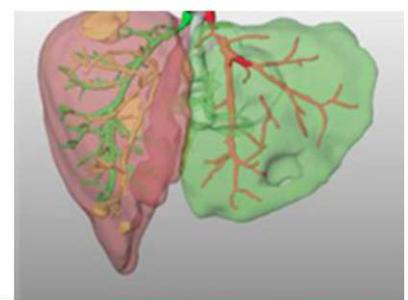


TABLE 2. Main Operative Characteristics of 202 Patients in the ALPPS Registry

Variable	All Patients (n = 202)
Laparoscopic/robotic ALPPS, n (%)	5 (3)
Type of ALPPS*	
<i>Right hepatectomy ALPPS, n (%)</i>	106 (52)
<i>Right trisectionectomy ALPPS + Sg 1, n (%)</i>	69 (34)
<i>Right trisectionectomy ALPPS – Sg 1, n (%)</i>	17 (8)
Other types†, n (%)	10 (5)

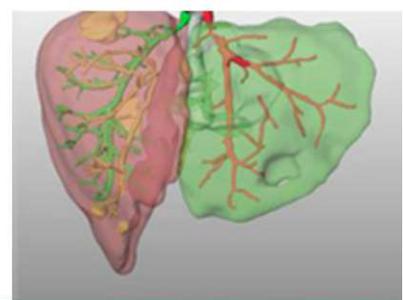
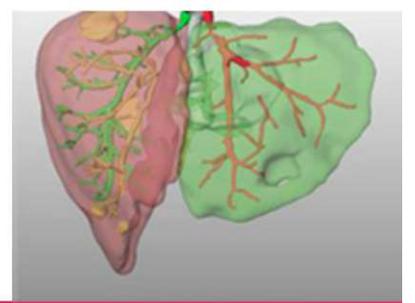


TABLE 2. Intraoperative Data in 30 Patients Treated

Characteristic	1st Stage	2nd Stage
Type of major liver resection, n (%)		
Right hepatectomy	—	8 (28)
Right trisectionectomy	—	20 (69)
Left trisectionectomy	—	1 (3)



METÁSTASE HEPÁTICA COLO-RETAL EXTENSA

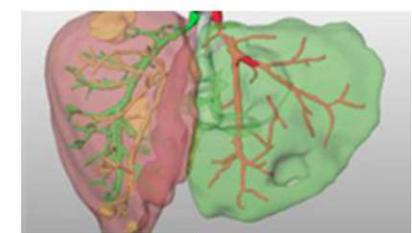
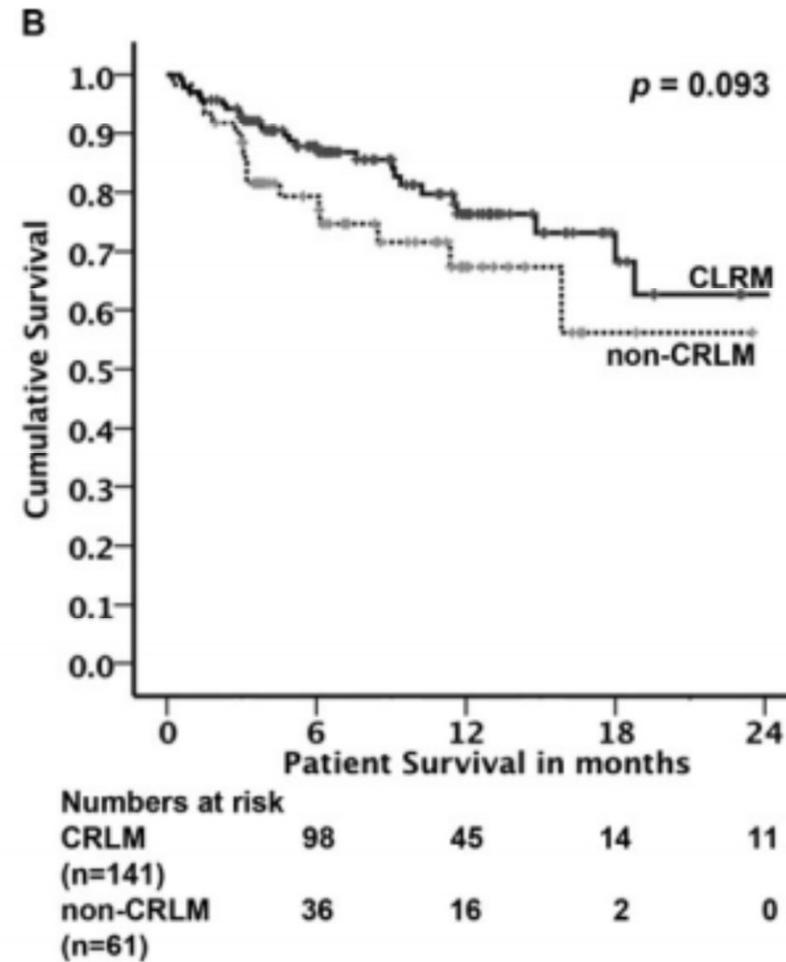
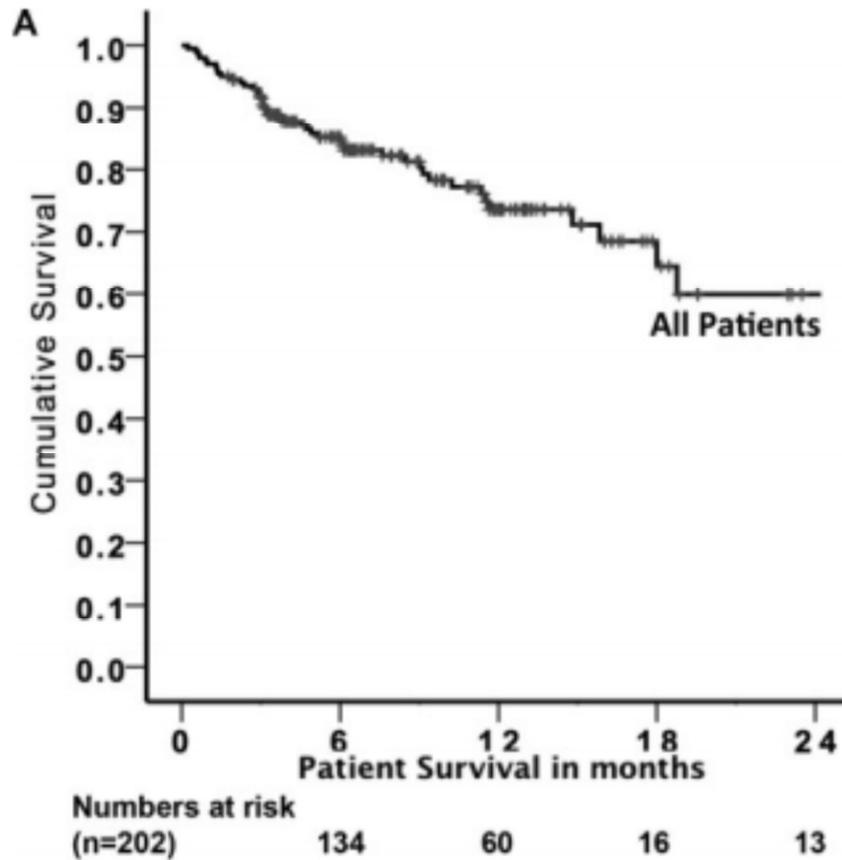
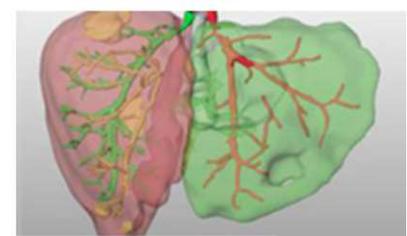
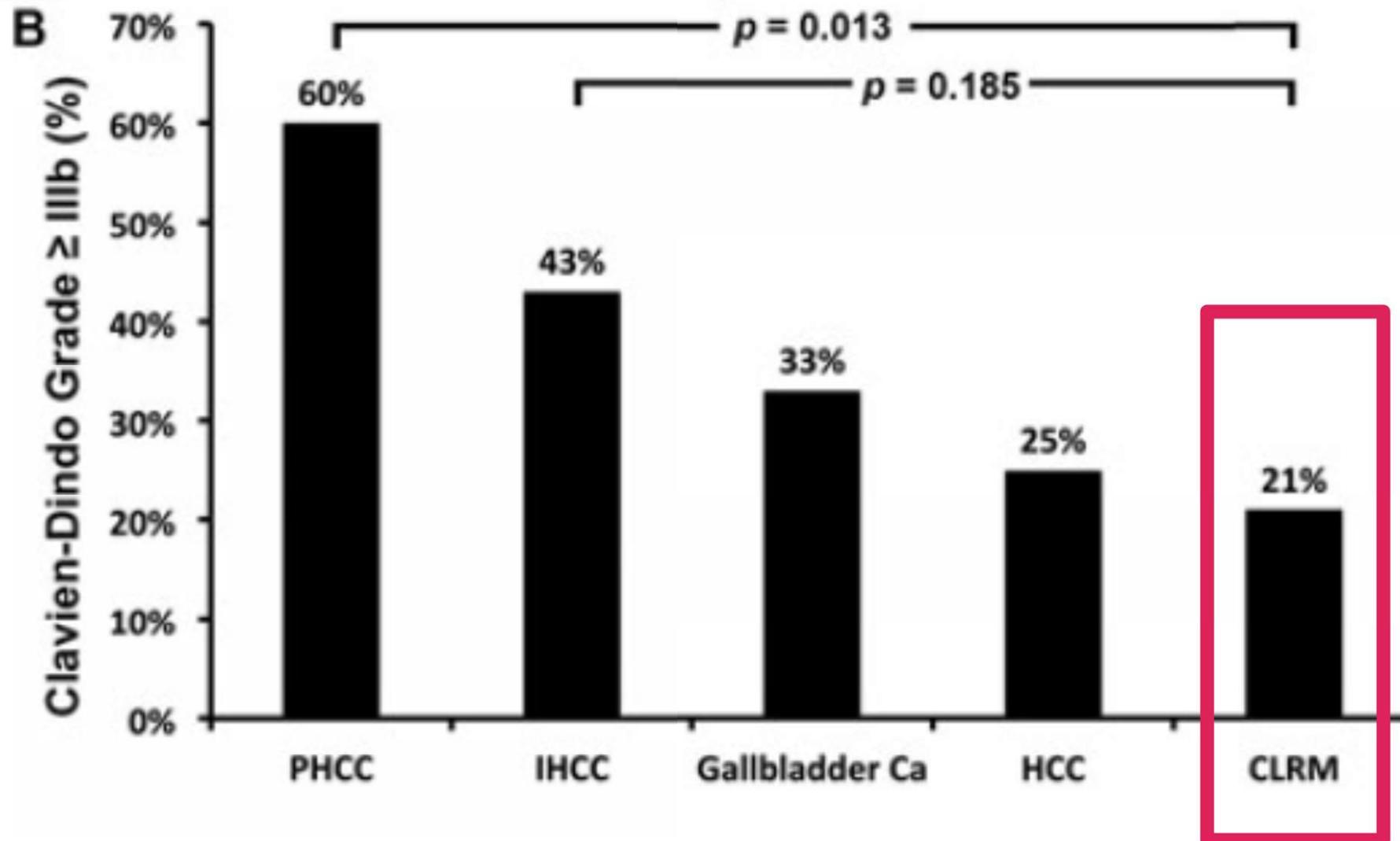
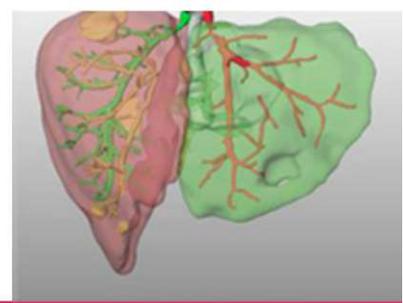


TABLE 1. Main Characteristics of 202 Patients in the ALPPS Registry

Variable of Interest	All Patients (n = 202)
Age, median (IQR), yr	60 (53–68)
Sex, male/female, number (%)	121/81(60%/40%)
Ethnic origin	
White, n (%)	188 (93)
Asian, n (%)	10 (5)
Other*, n (%)	4 (2)
Tumor type	
CRLM, n (%)	141 (70)
HCC, n (%)	17 (8)
PHCC, n (%)	11 (5)
IHCC, n (%)	8 (4)
NET, n (%)	8 (4)
Gallbladder cancer, n (%)	6 (3)
Others, n (%)	11 (5)





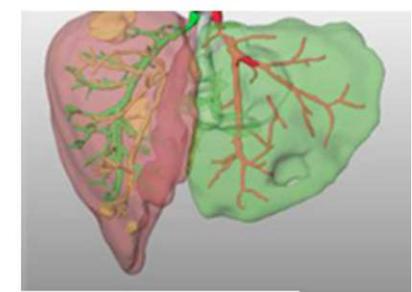
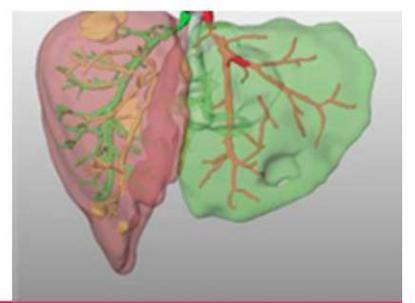
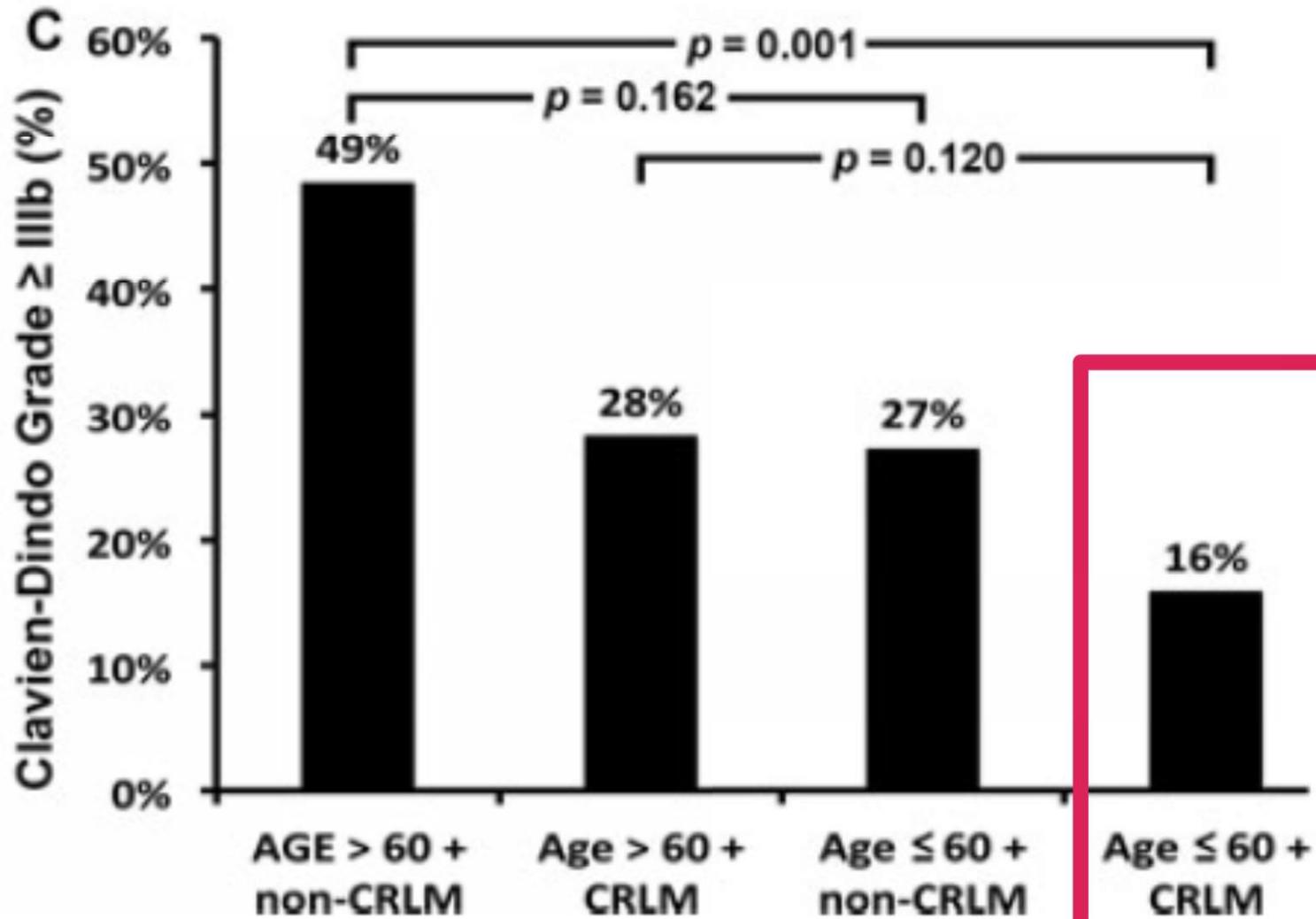
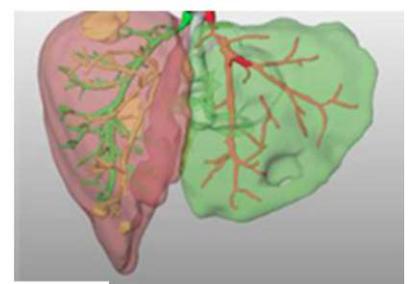


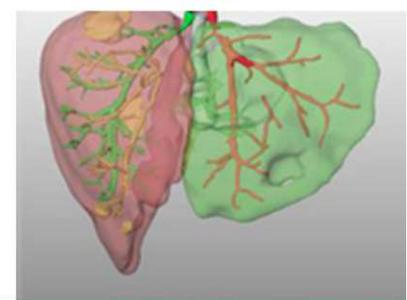
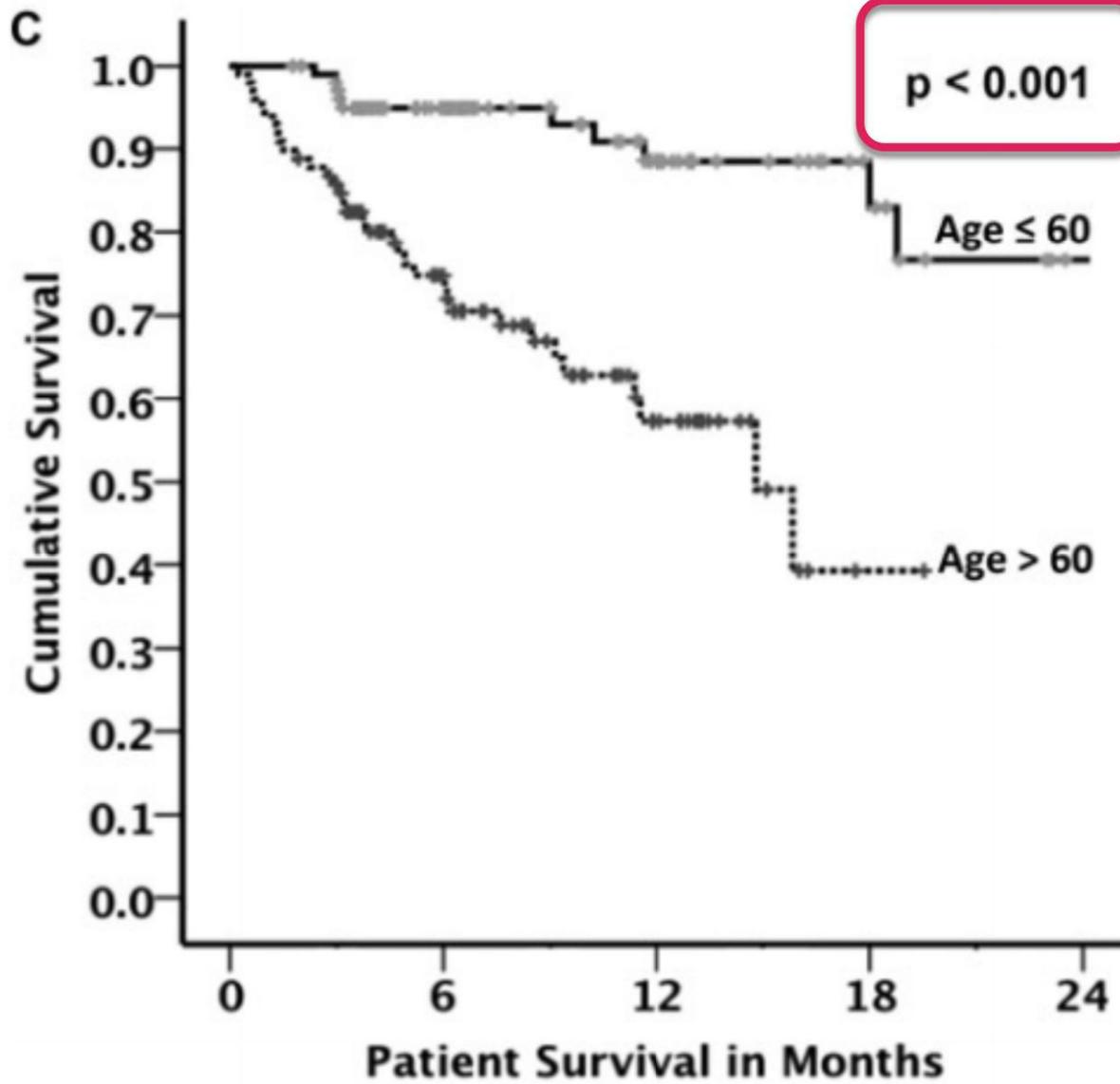
TABLE 3. Main Postoperative Outcomes of 202 Patients in the ALPPS Registry

Variable	All Patients (n = 202)
Failure to reach stage II, n (%)	5 (2)
30-d mortality, n (%)	5 (2)
In-hospital mortality, n (%)	18 (9)
90-d mortality	
In all patients n (%)	19 (9)
In CRLM, n (%) (no. total CRLM)	11 (8%) (n = 141)
In HCC, n (%) (no. total HCC)	2 (12%) (n = 17)
In PHCC, n (%) (no. total PHCC)	3 (27%) (n = 11)
In IHCC, n (%) (no. total IHCC)	1 (13%) (n = 8)
In NET, n (%) (no. total NET)	0 (0%) (n = 8)
In gallbladder cancer (%) (no. total gallbladder cancer)	2 (33%) (n = 6)



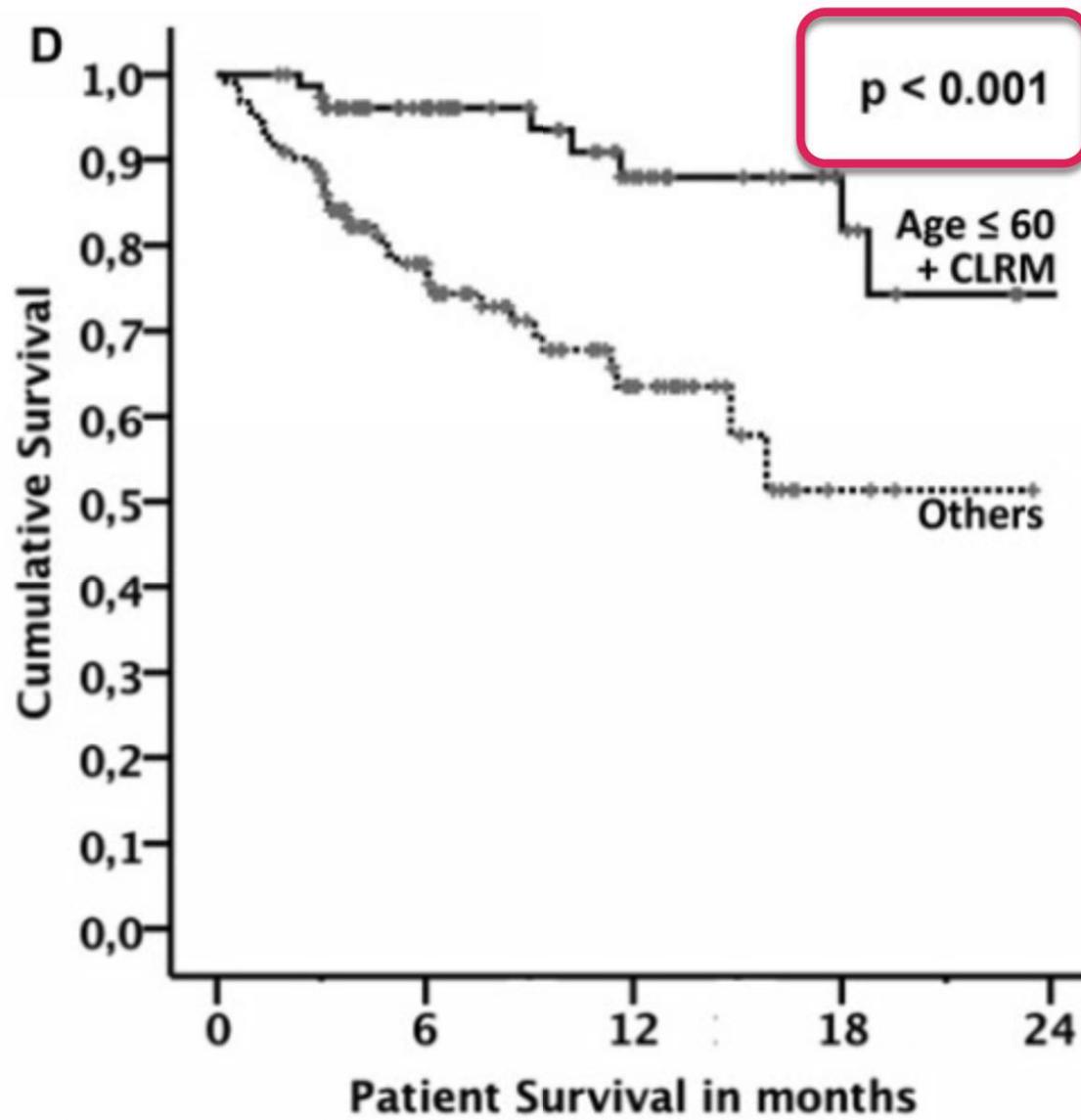
IDADE < 60 ANOS





Numbers at risk

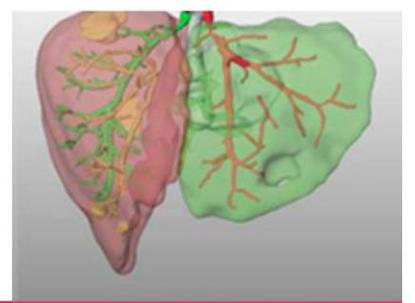
Age ≤ 60 (n=101)	90	39	15	12
Age > 60 (n=98)	57	20	4	0



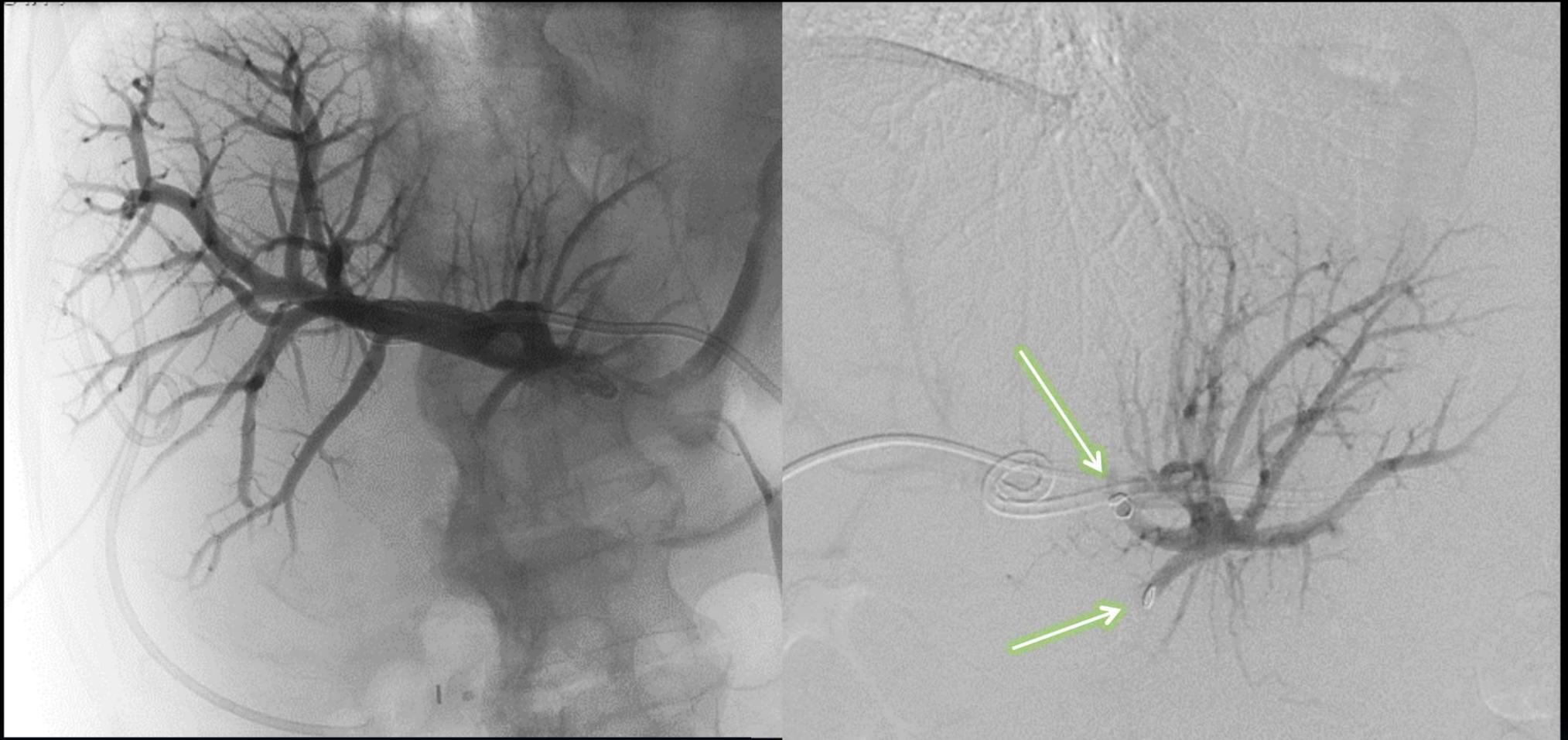
Numbers at risk

Age ≤ 60 + CLRM (n=78)	71	30	13	10
Others (n=121)	72	29	8	0

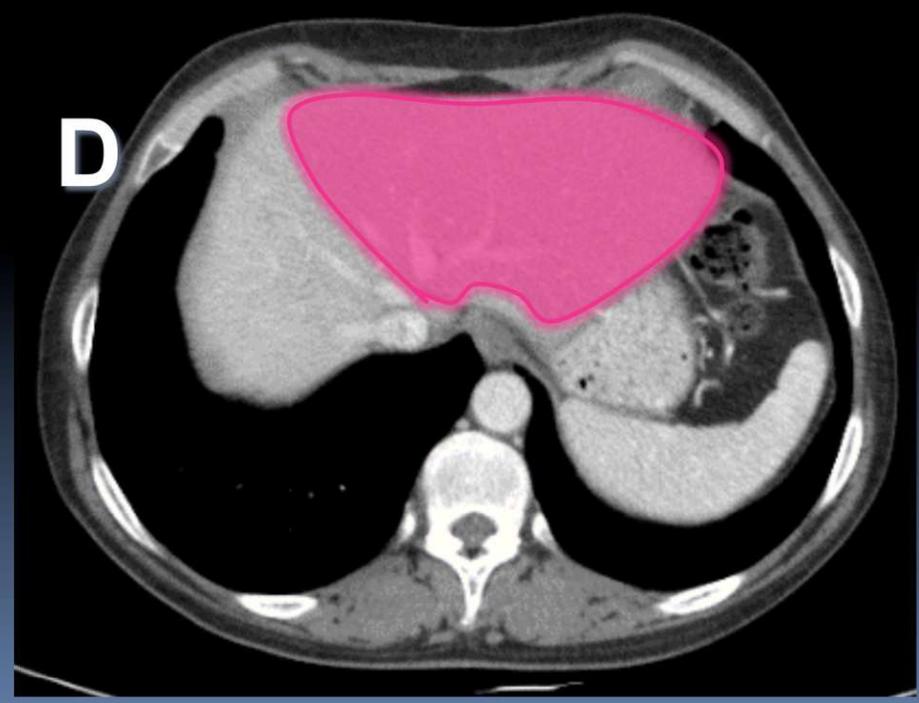
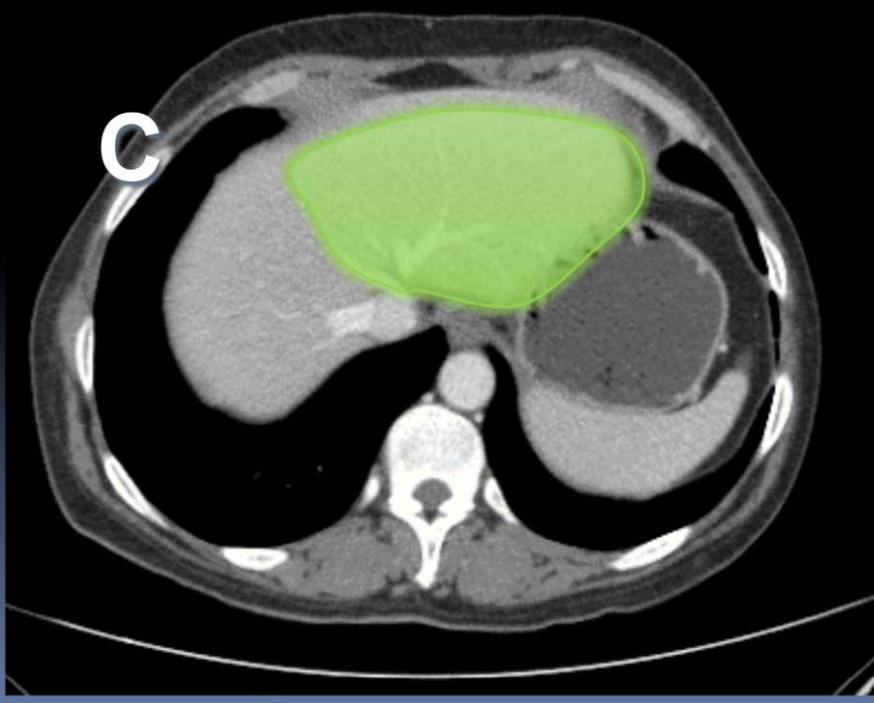
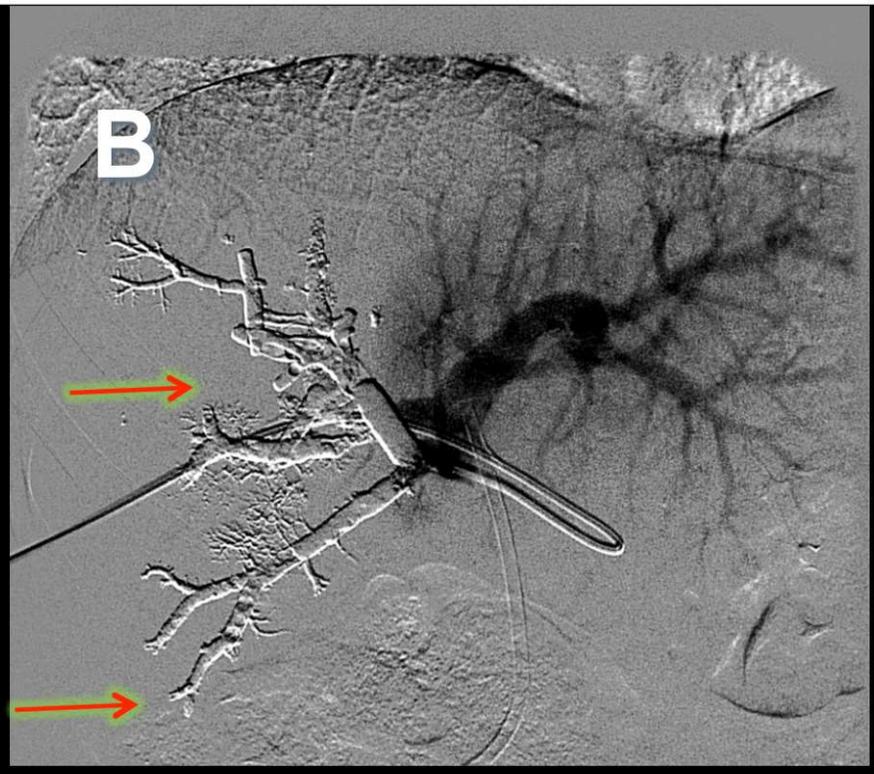
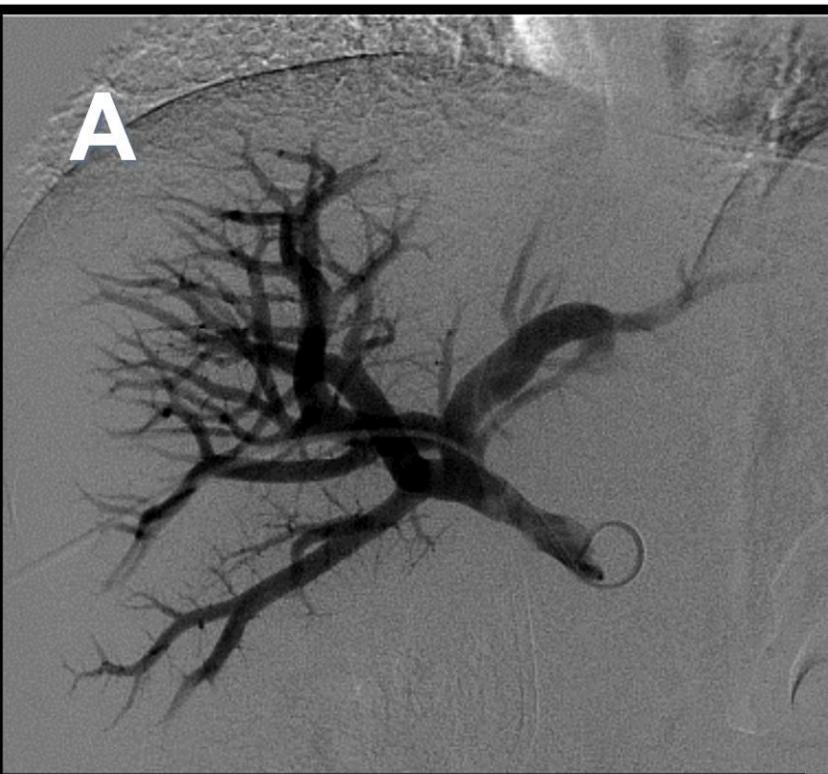




ALPPS DE RESGATE

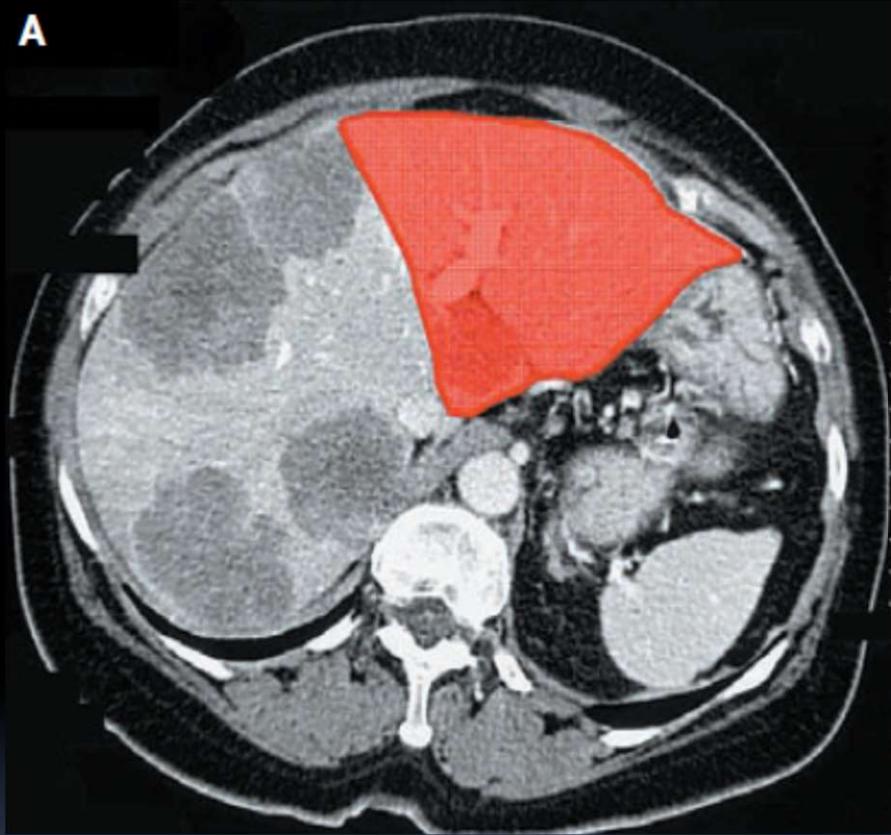


(A) Portografia direita com catéter pigtail através de acesso ipsilateral. (B) Após microcateterização seletiva dos principais ramos do segmento 4 (setas), realizada embolização com micropartículas e micromolas. Notar a preservação do fluxo portal normal nos demais ramos do lobo esquerdo. O procedimento prosseguiu com embolização dos ramos portais direitos com NBCA.





A



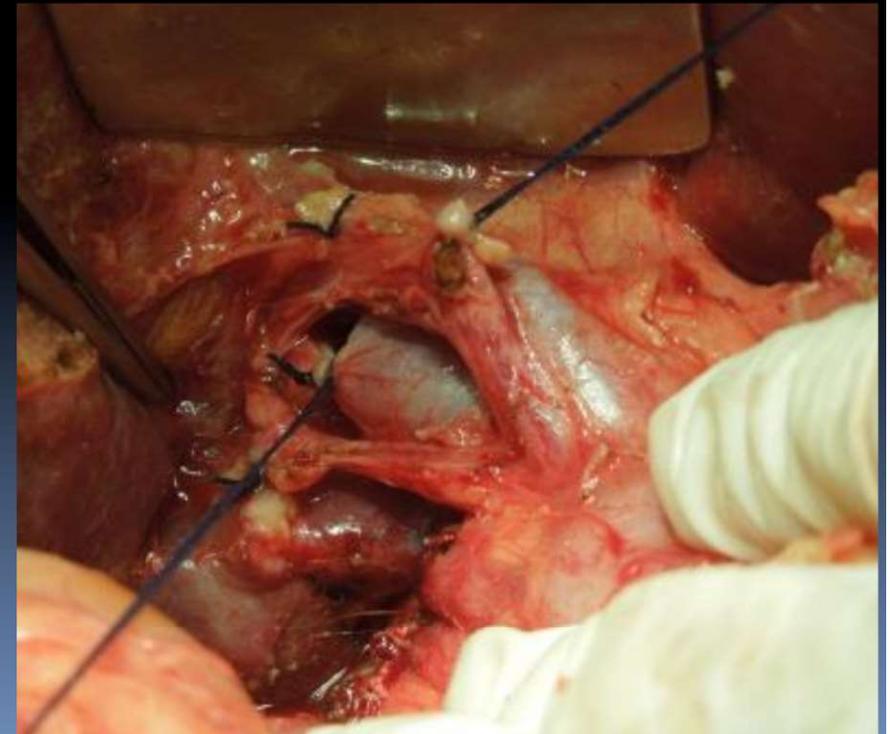
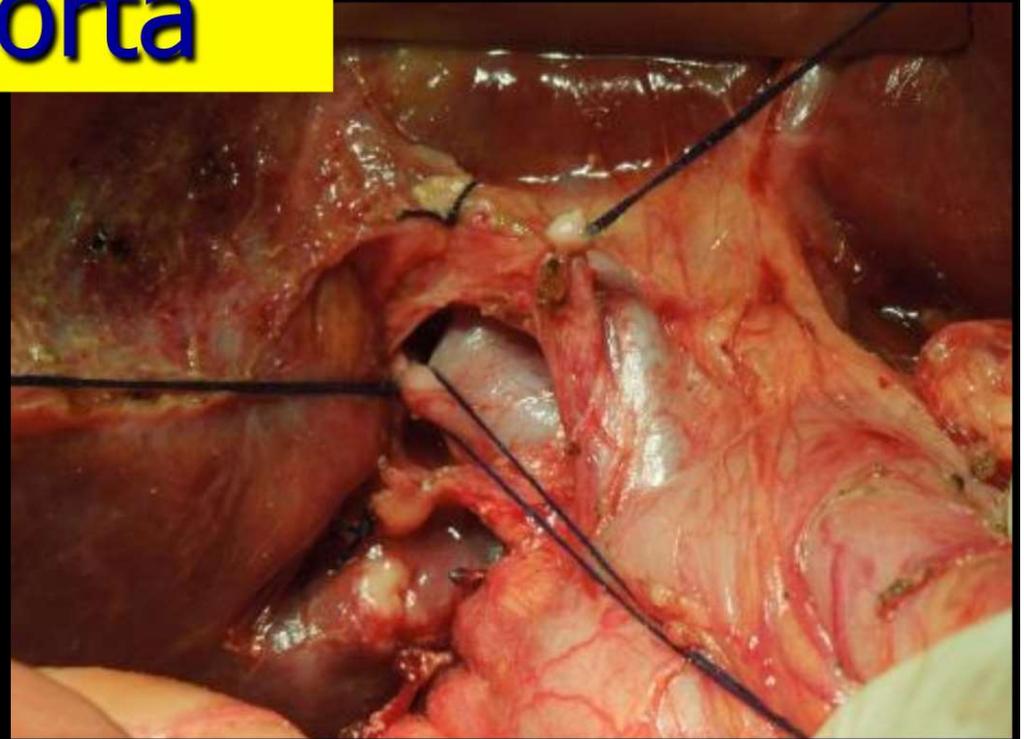
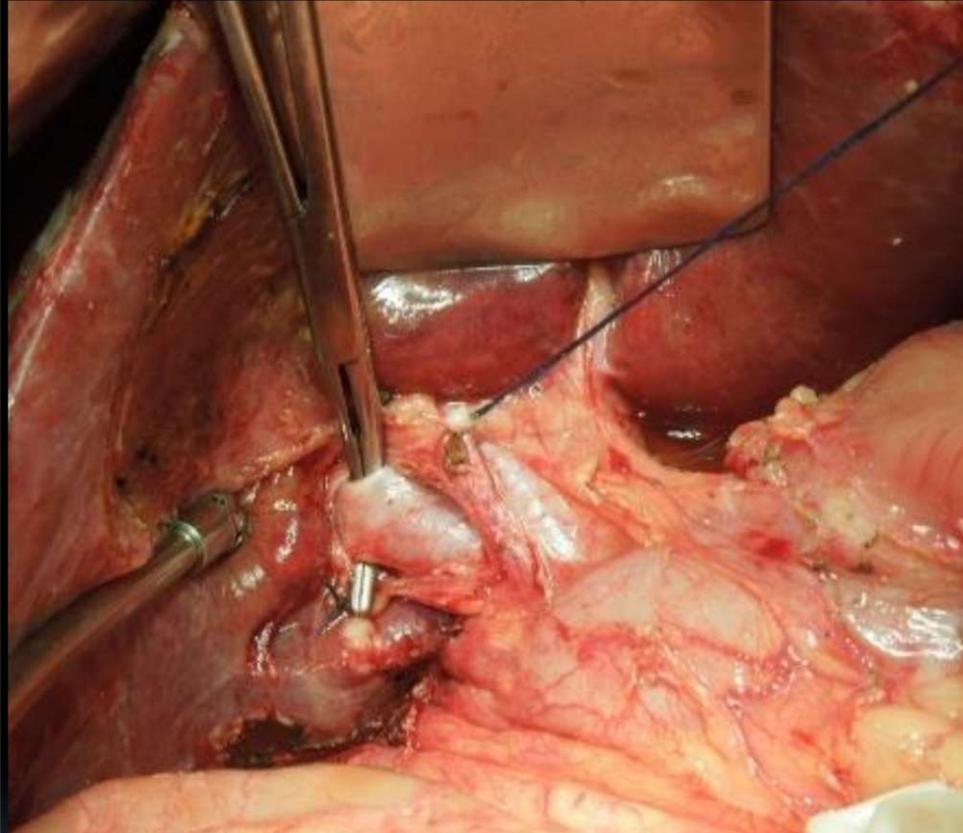
B



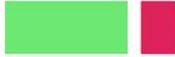
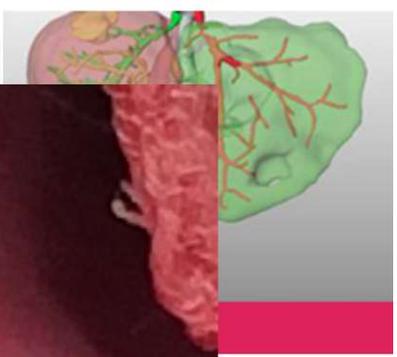
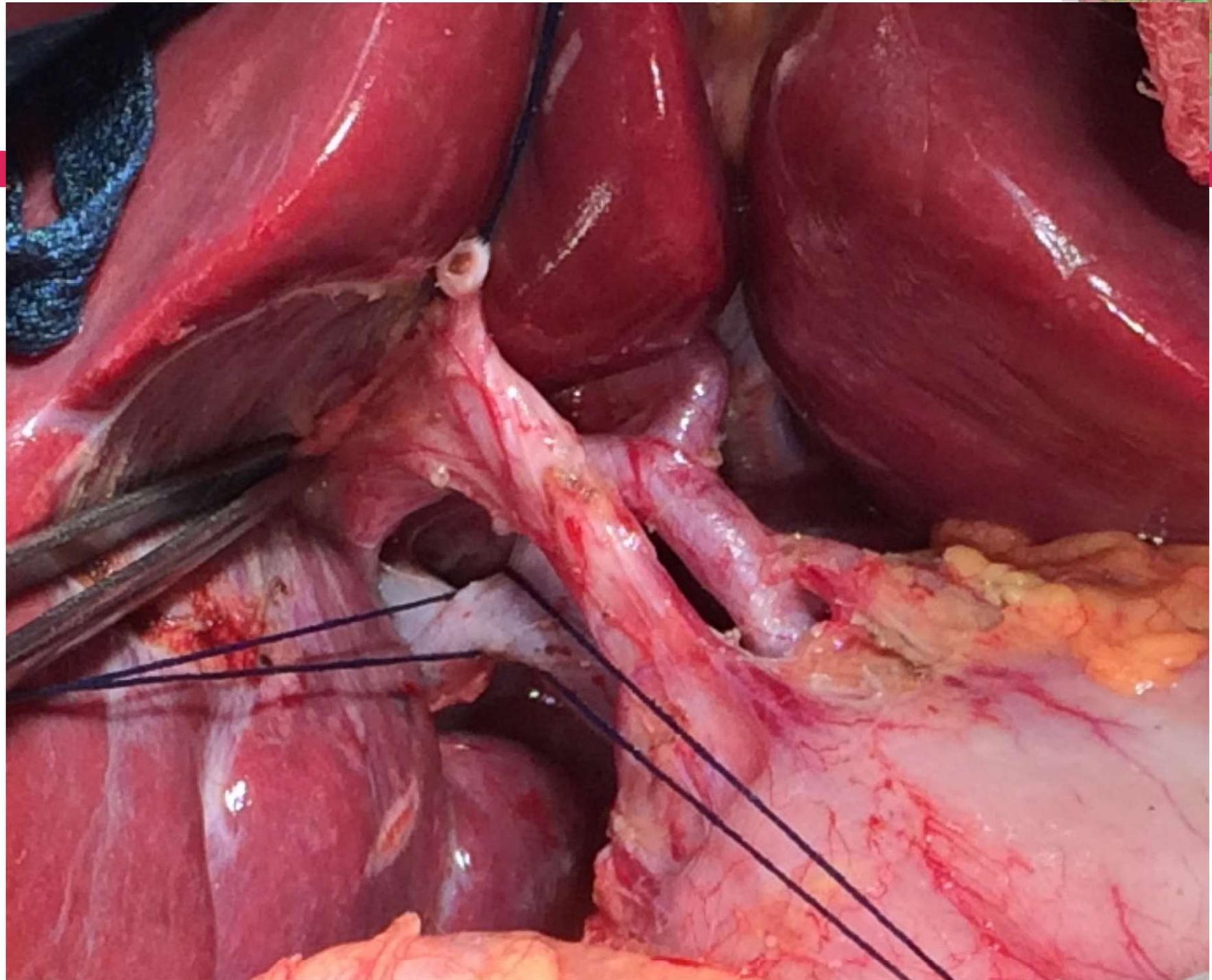
Embolização da veia porta

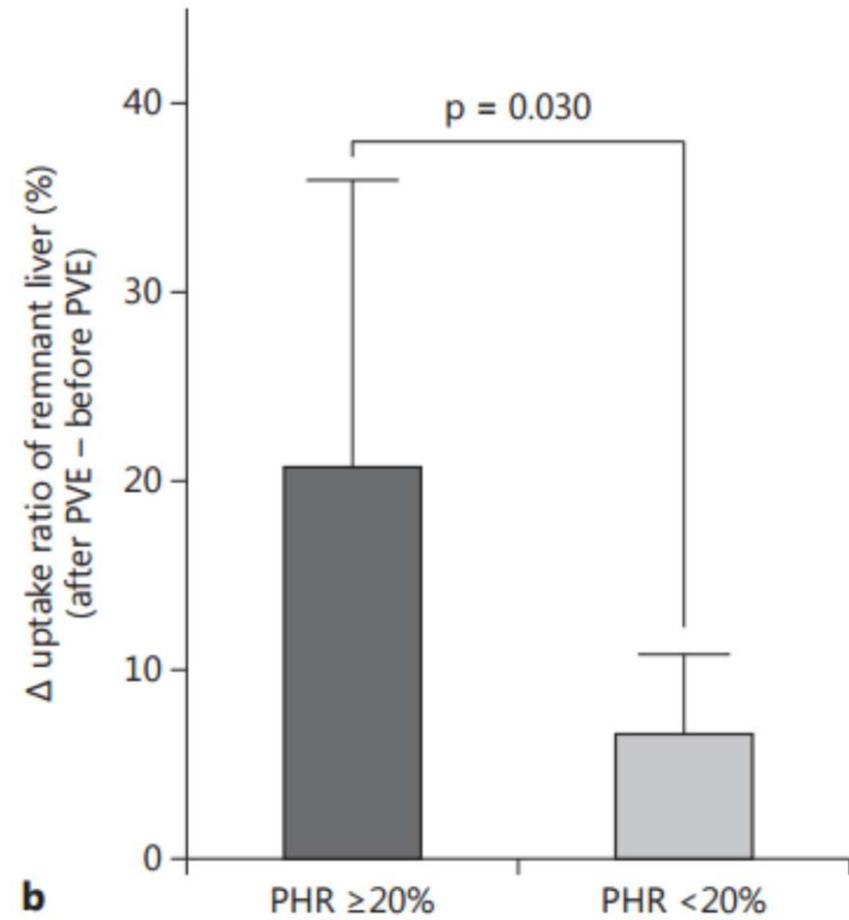
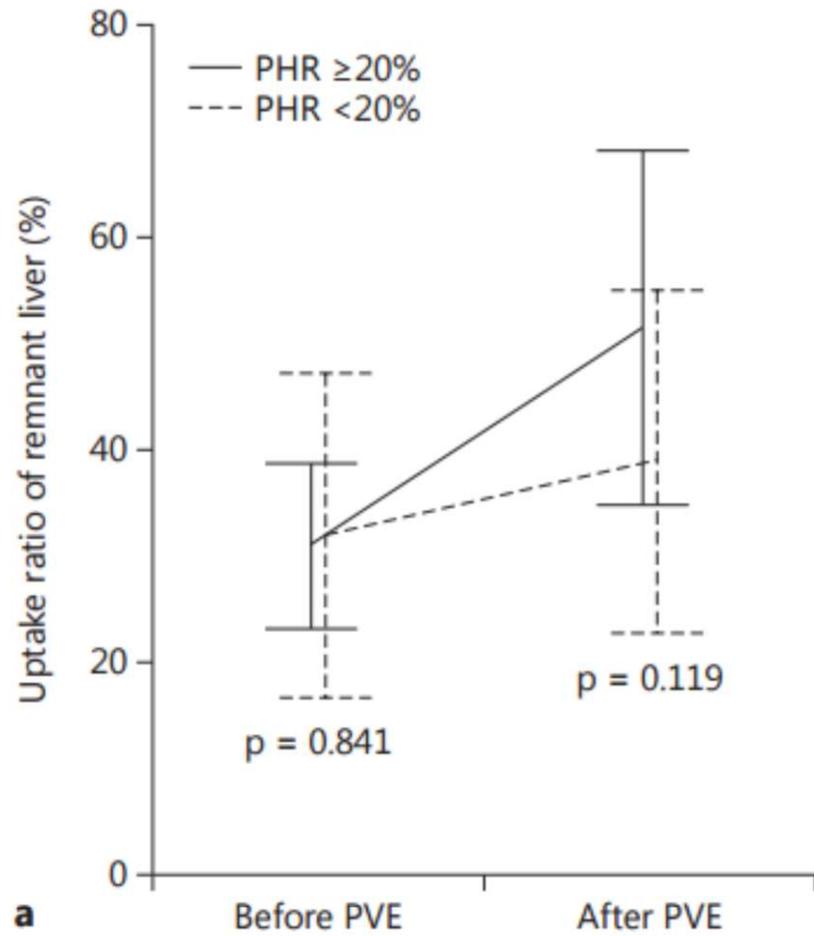
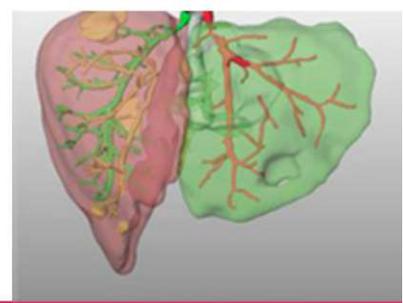


Ligadura da veia porta



Ligadura da veia porta D





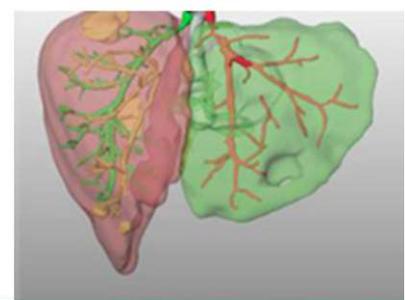
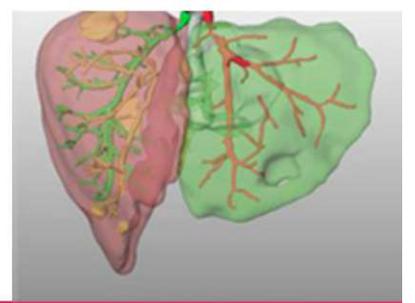


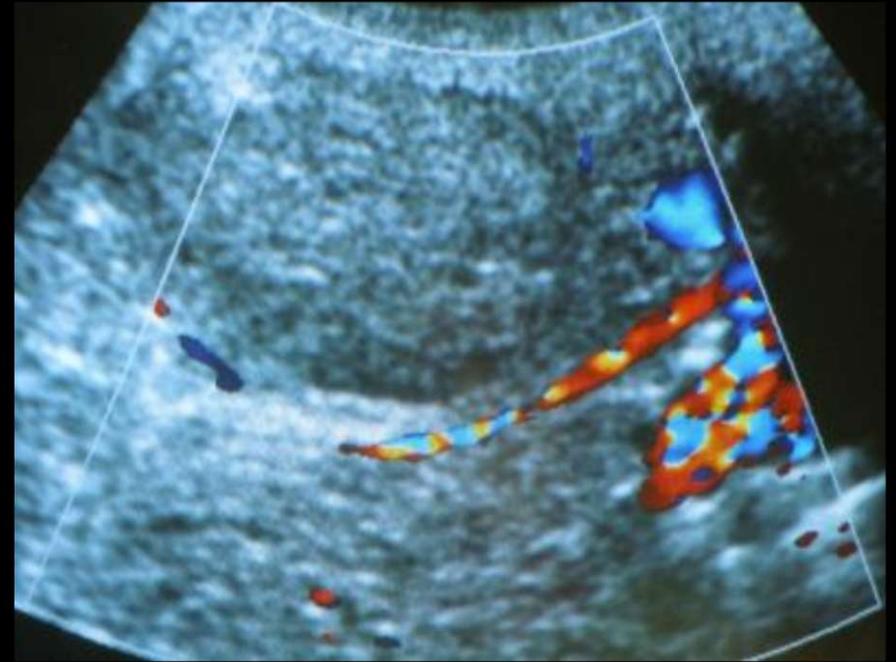
Table 2 Comparison of liver volume in patients undergoing extended right hepatectomy

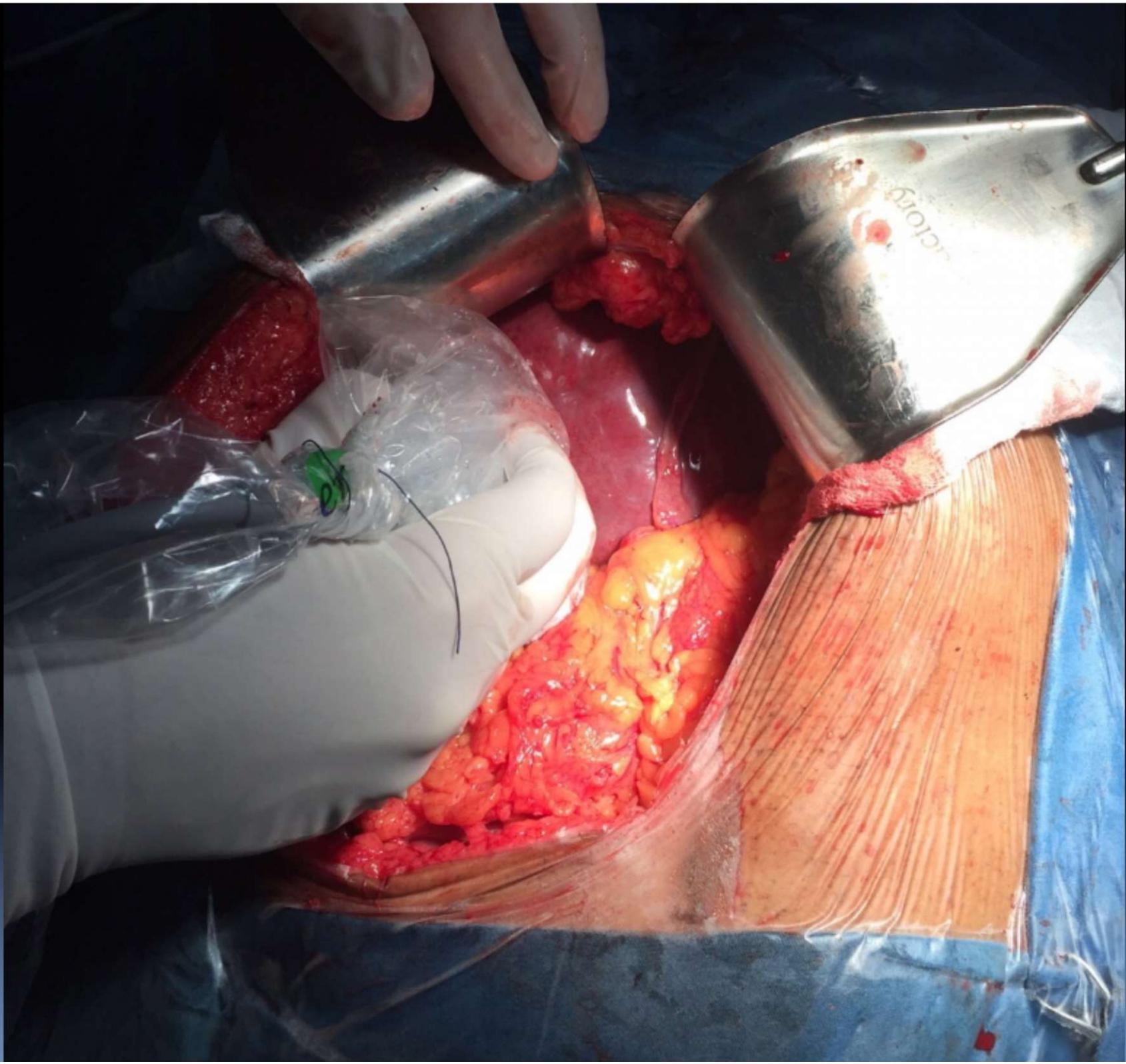
	RPVE (n = 6)	RPVE + IV (n = 12)
FLR volume pre-PVE, mL, median (IQR)	532.1 (410.7–614.2)	441.0 (256.9–513.0)
FLR volume post-PVE, mL, median (IQR)	739.4 (694.9–813.2)	579.6 (420.0–703.3)
Change in volume, mL, median (IQR)	139.9 (125.3–299.7)	140.9 (119.3–243.8)
sFLR pre-PVE, %, median (IQR)	26.5 (20.7–37.2)	23.8 (18.9–29.9)
sFLR post-PVE, %, median (IQR)	27.5 (22.2–57.2)	25.7 (21.8–42.5)
Degree of hypertrophy, %, median (IQR)	23.8 (20.7–62.3)	38.3 (26.0–87.2)

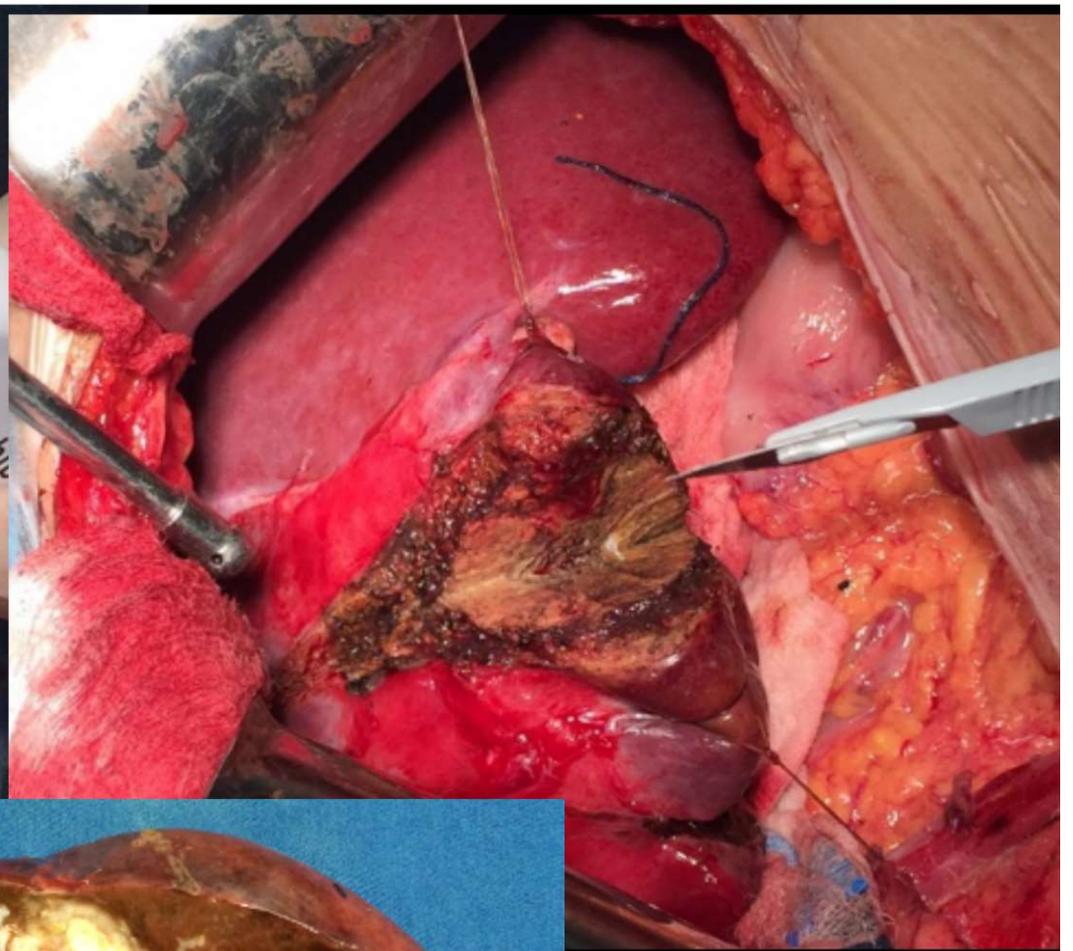
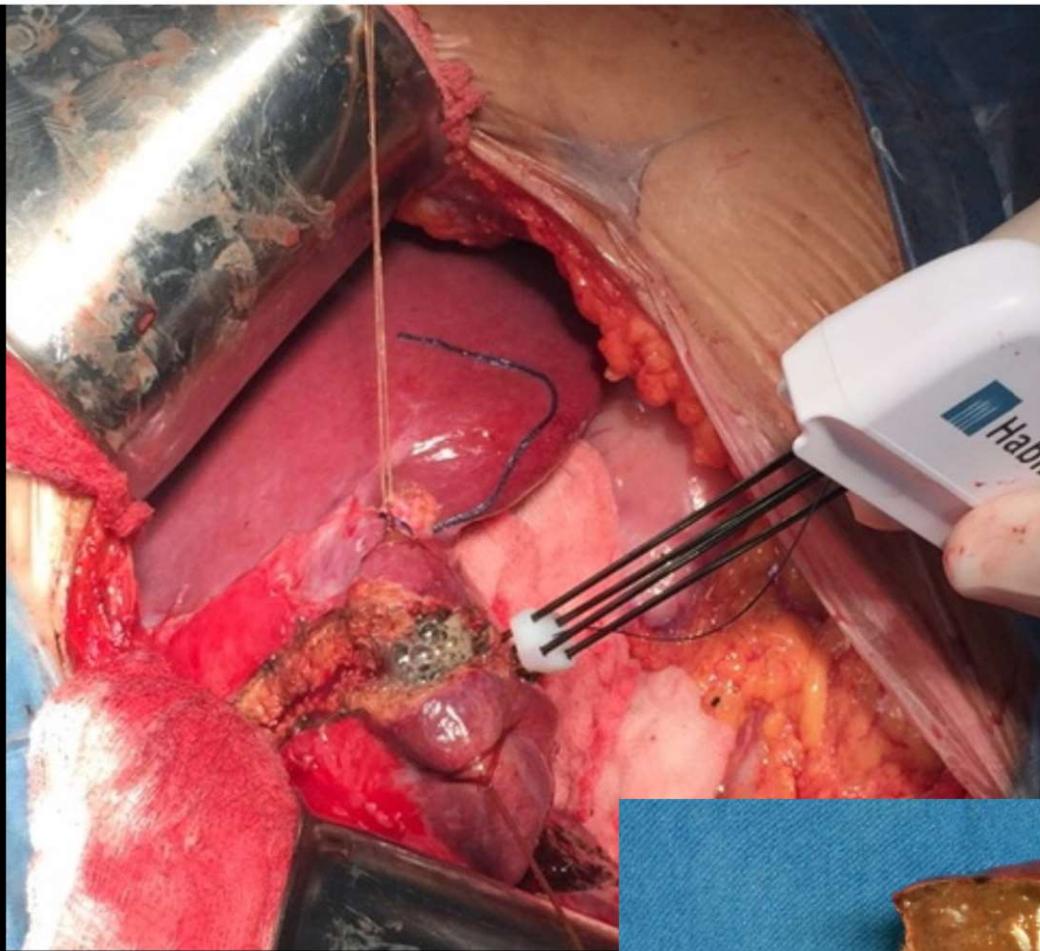


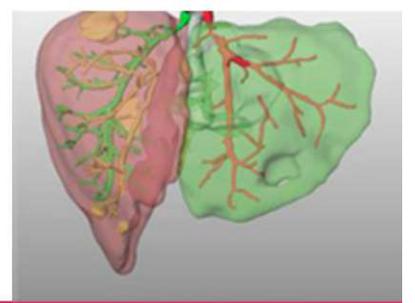
**Margem do tumor próximo ao
remanescente hepático
(ou seu pedículo vascular)**

US intra-operatória

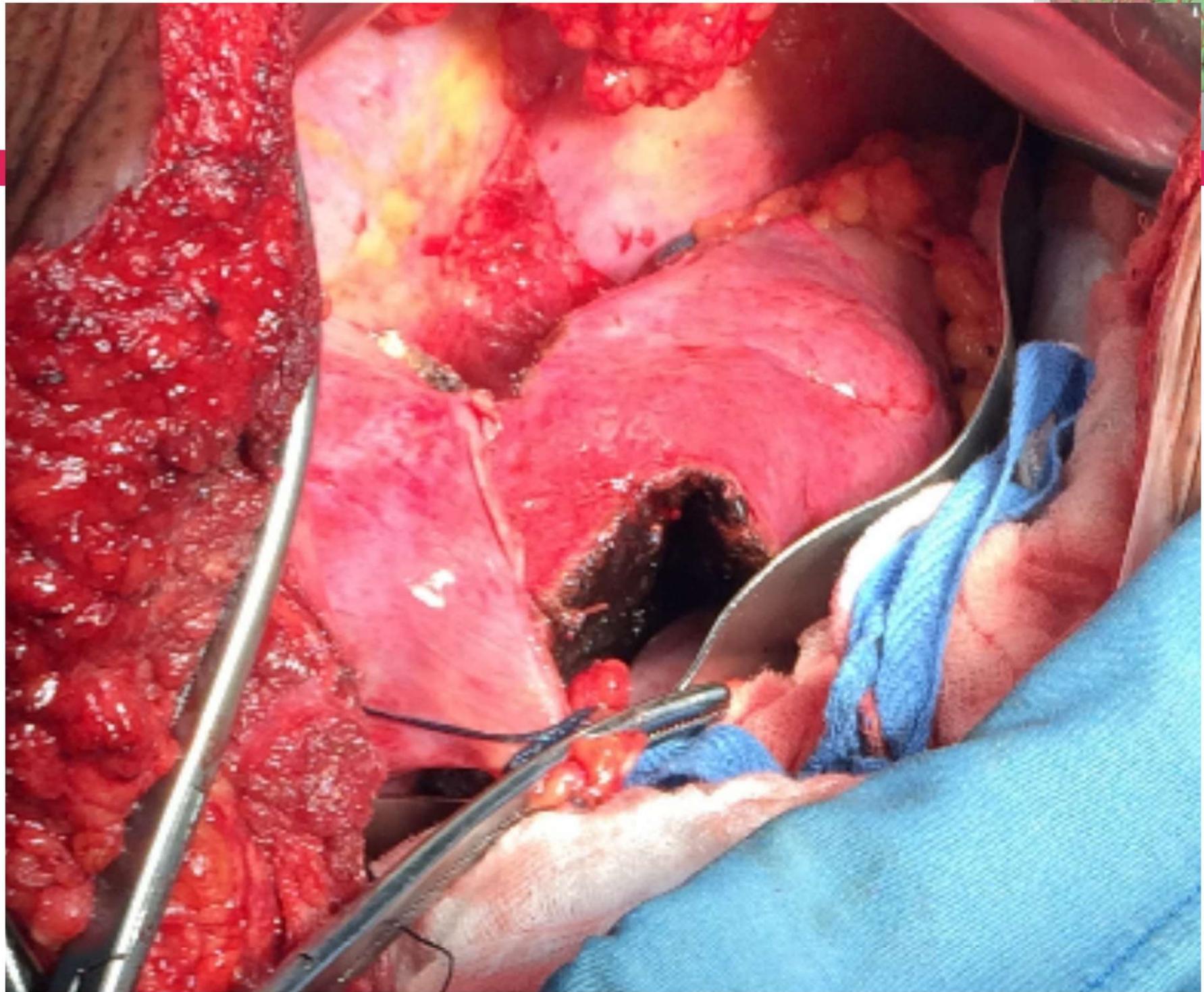
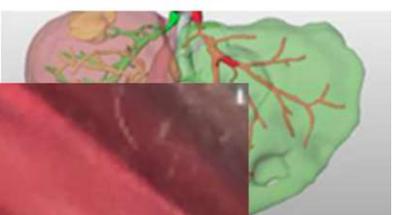








EXTENSÃO TUMORAL INESPERADA



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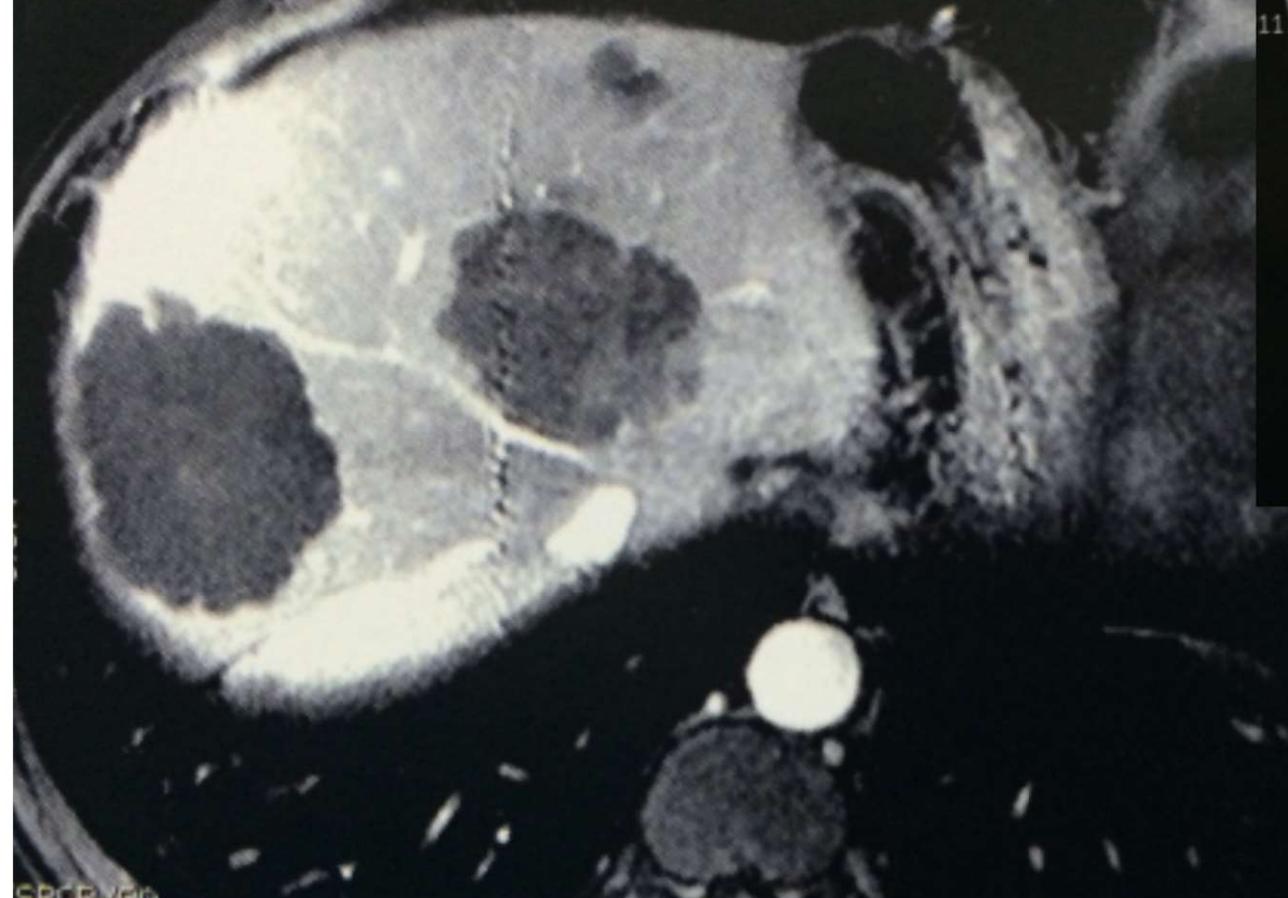
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PAULO DE

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EXCITE 1.5T GEHMR02

SA

INSTITUTO DE PA

Acc Nu

PAULO DE ABRI

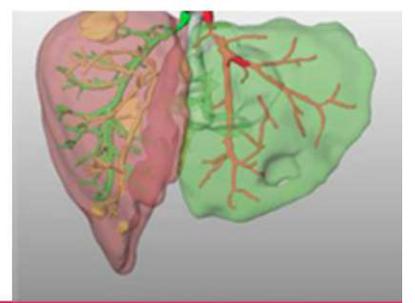
M 45

11.2



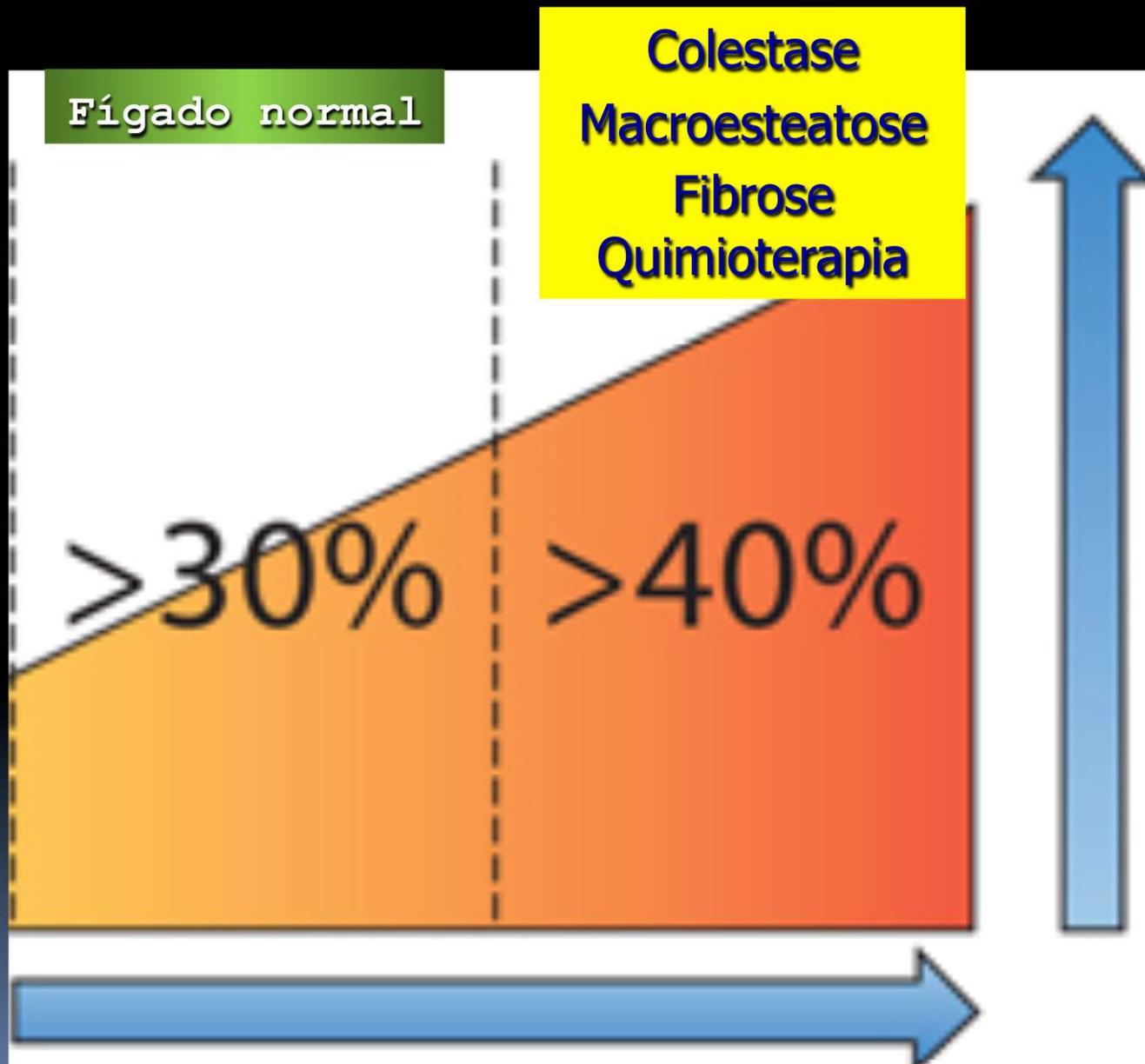
16 |

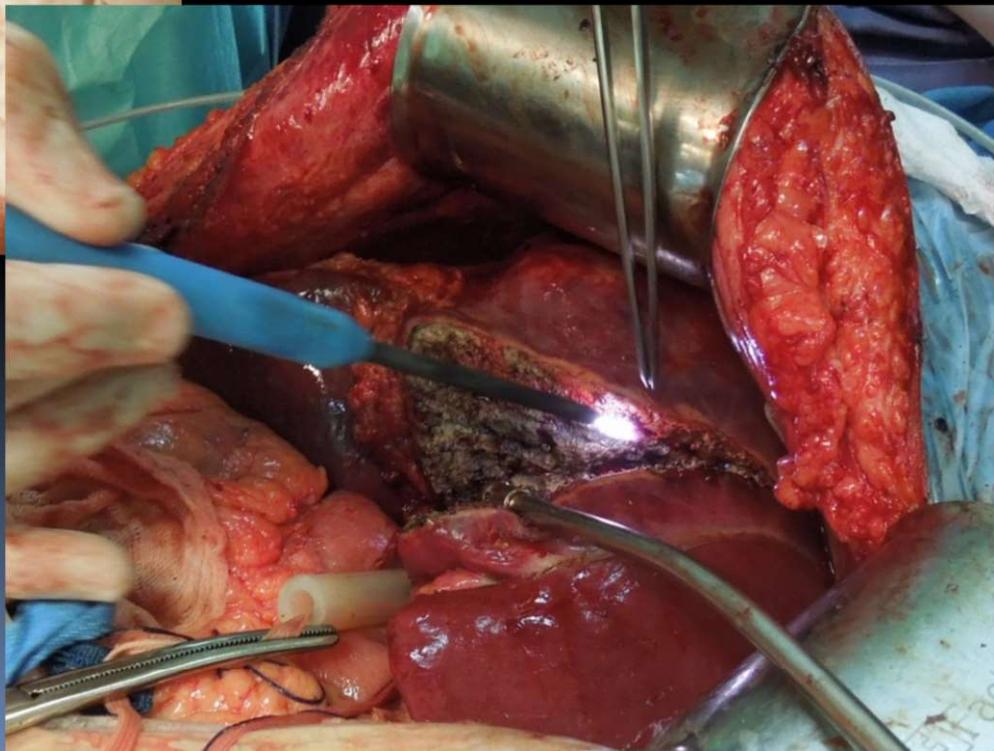
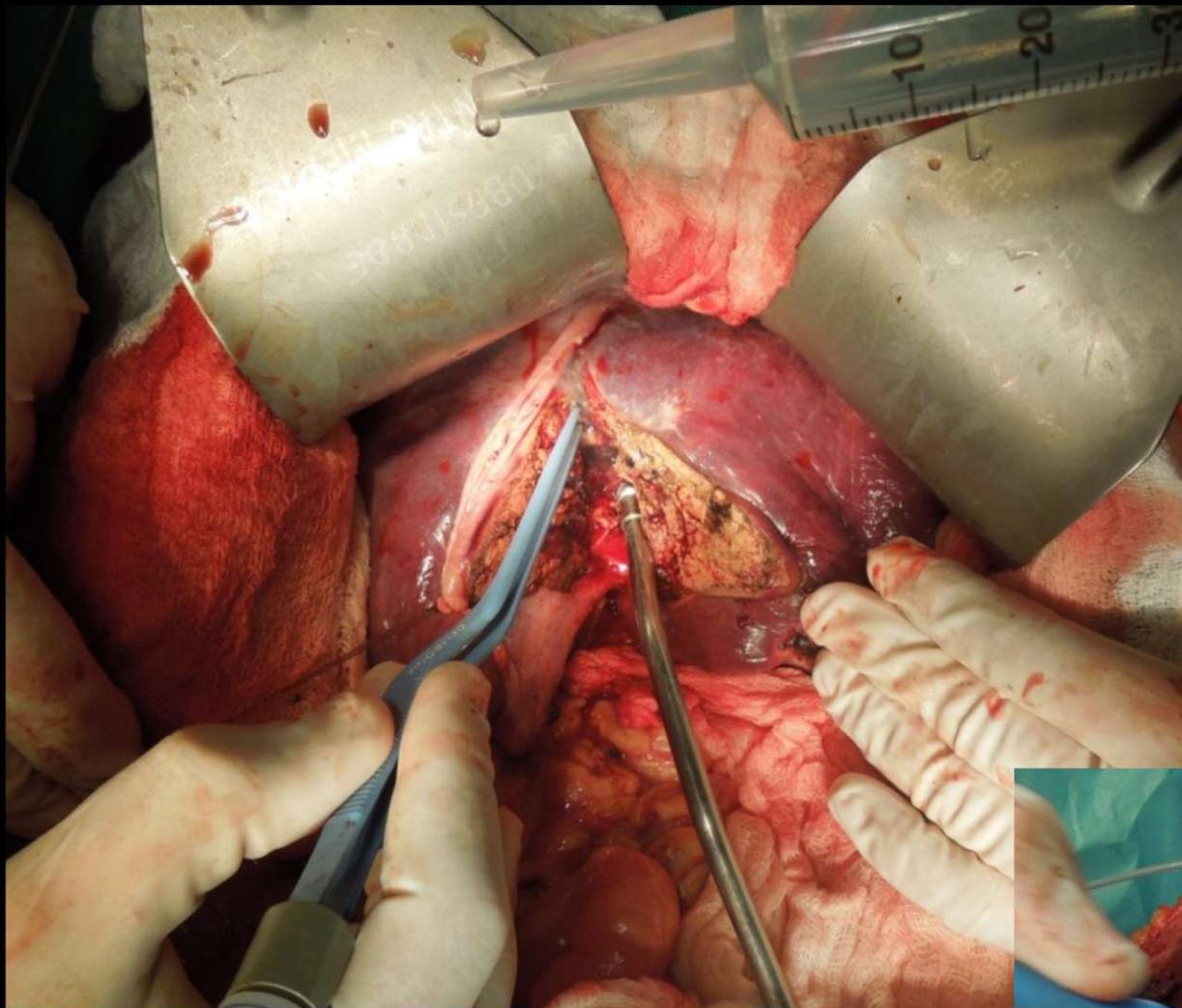
M



REMANESCENTE HEPÁTICO $\leq 30\%$
($\leq 0,5\%$ do peso corporal)

Remanescente hepático





Volumetria

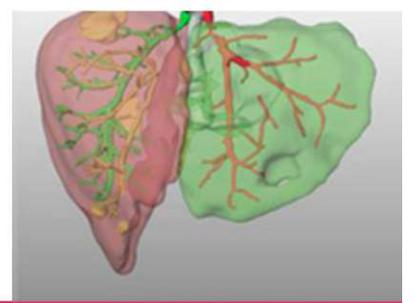
SI:3
Acc#: 0367714803
Pos. do paciente: FFS
Desc. do estudo: ANGIO ABDOME
Desc. da série: web 3D vms
< 1002 - 3 web 3D vms >

Current
12/10/14 ,08:15:23
PHILIPS

 Hepatic Vessels
 Portal Vessels

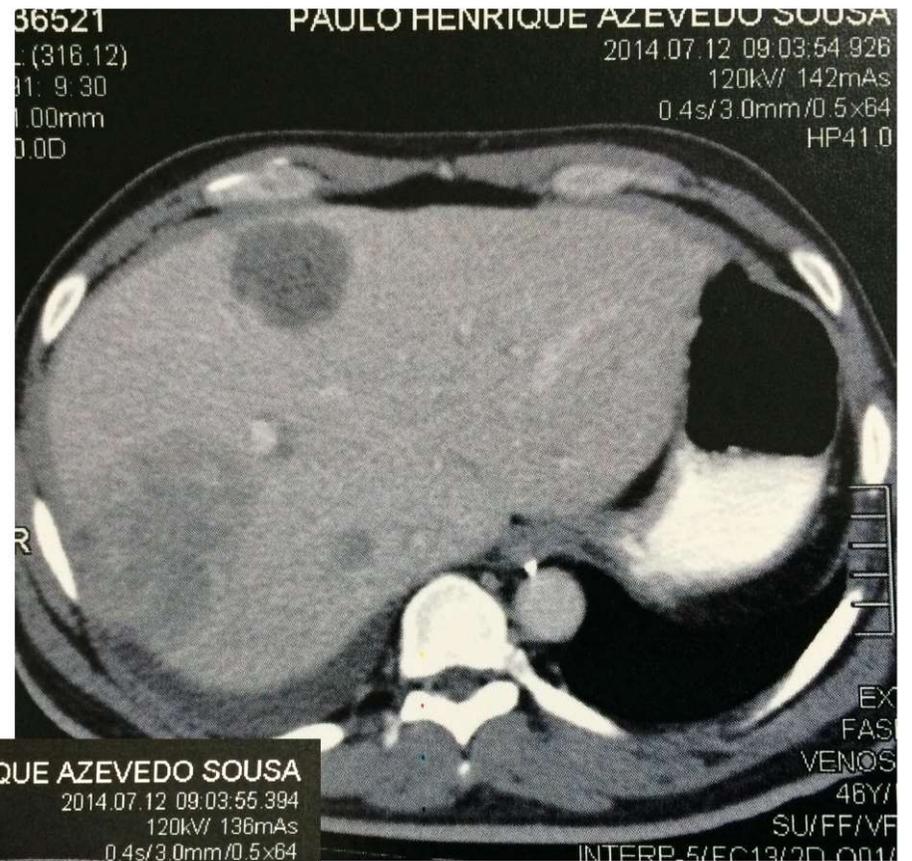


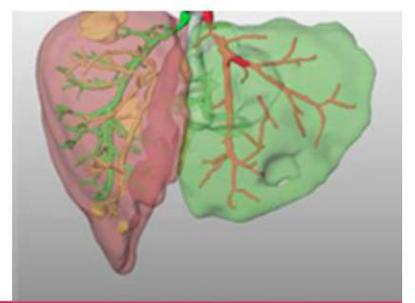
Liver Volume: 1404.0 cc
Average CT#: 133.1 H.U.



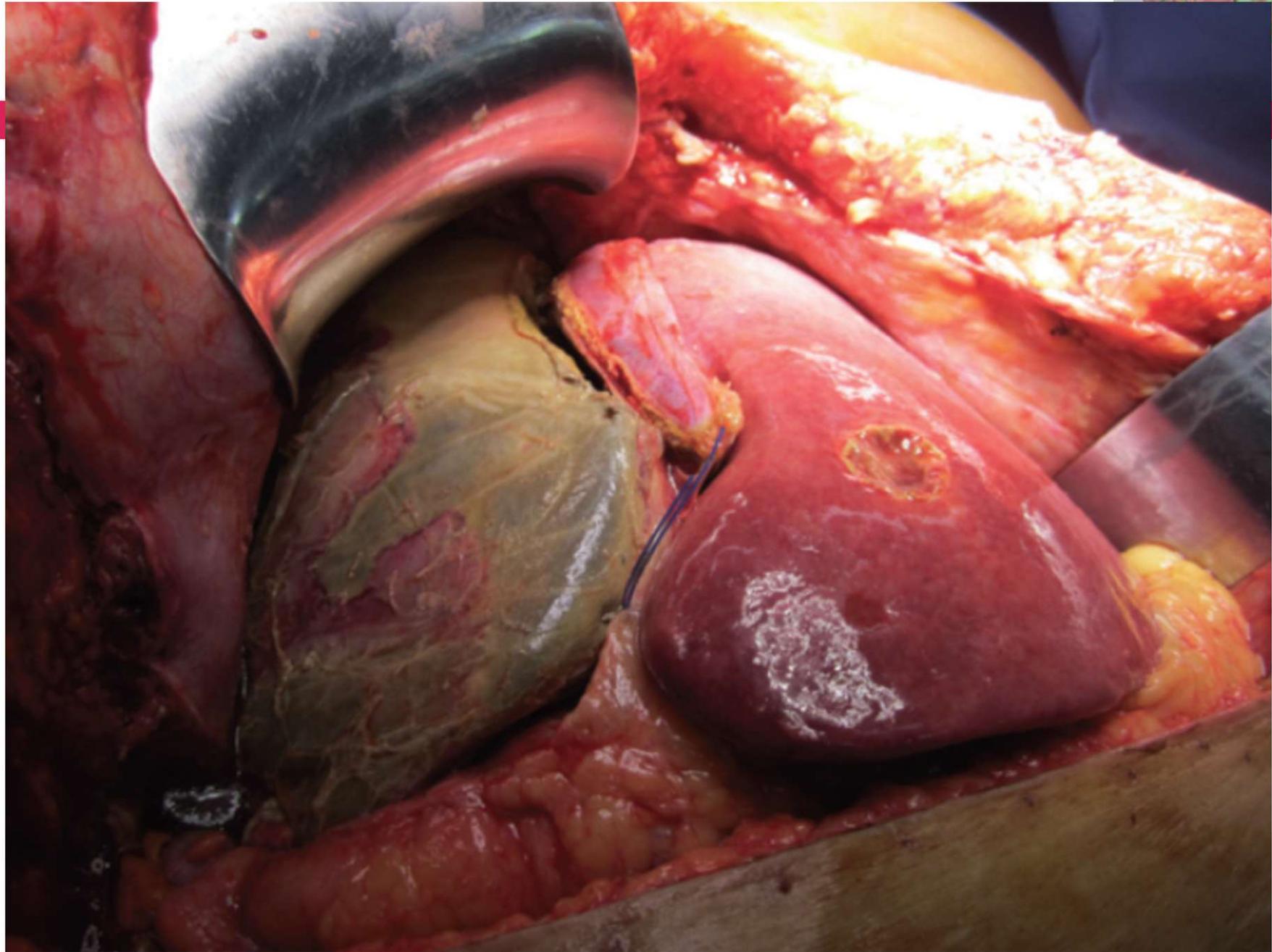
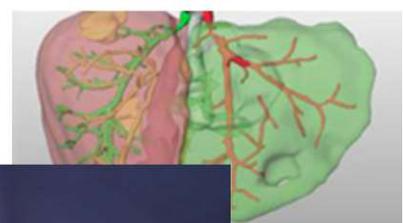
DOENÇA BILOBAR

Contra-indicação para EVP

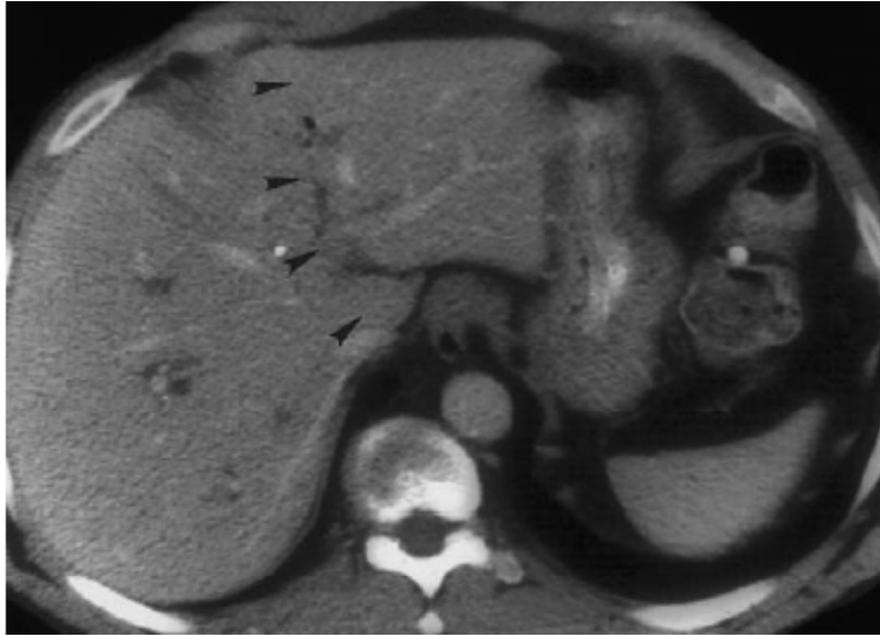




Necessidade de grande hipertrofia (> 65%)



Embolização da veia porta

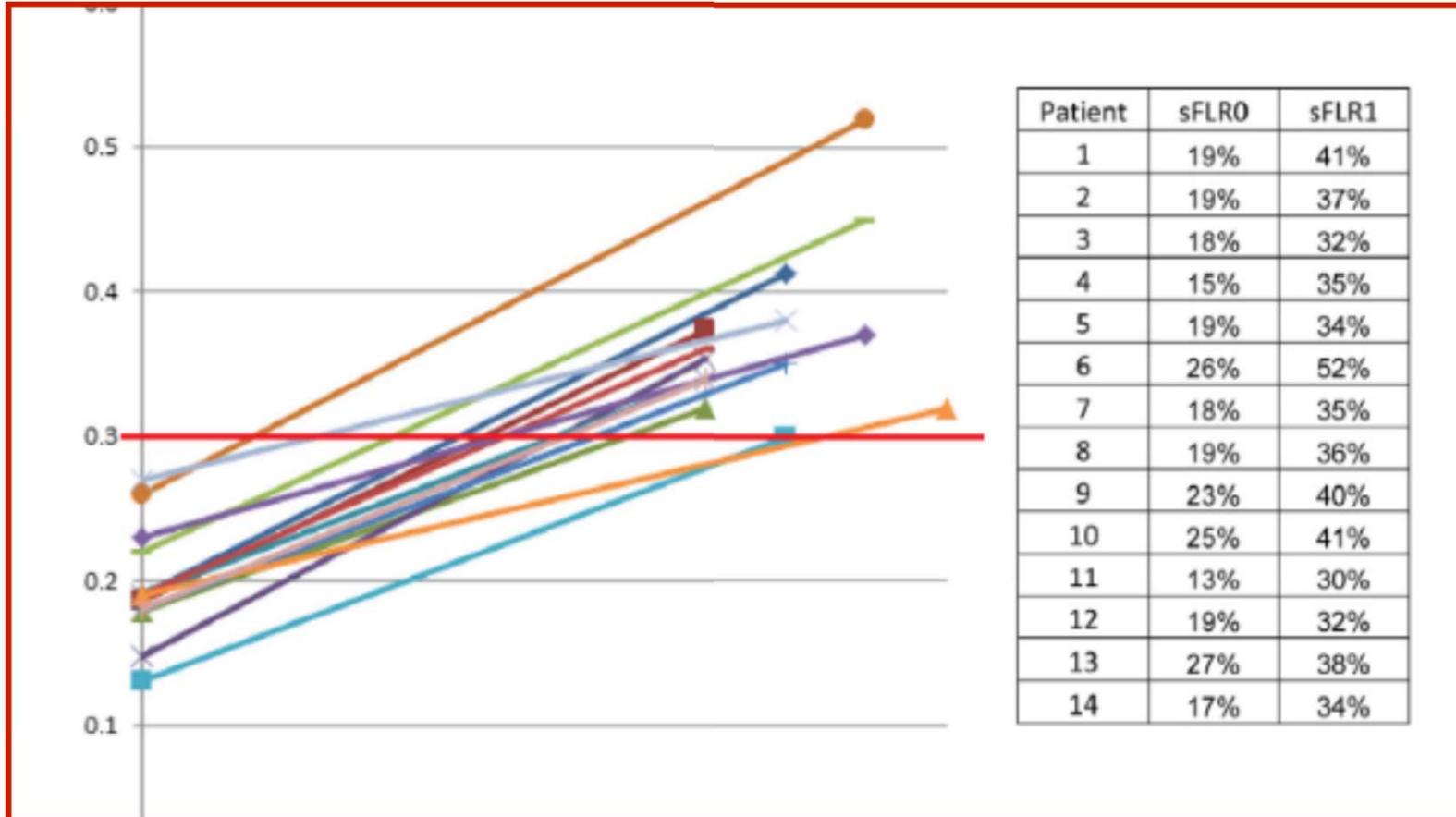
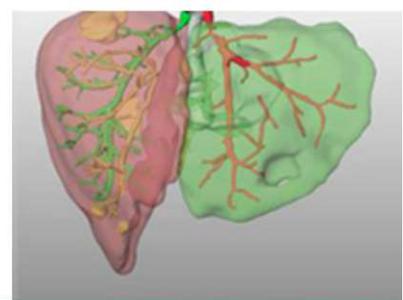


Antes
301 cm³

Depois
463 cm³

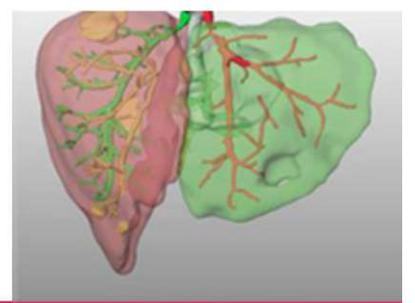
25,1%

Intervalo entre o 1o e 2o tempo



7-9 dias

Aumento médio = $93 \pm 28\%$

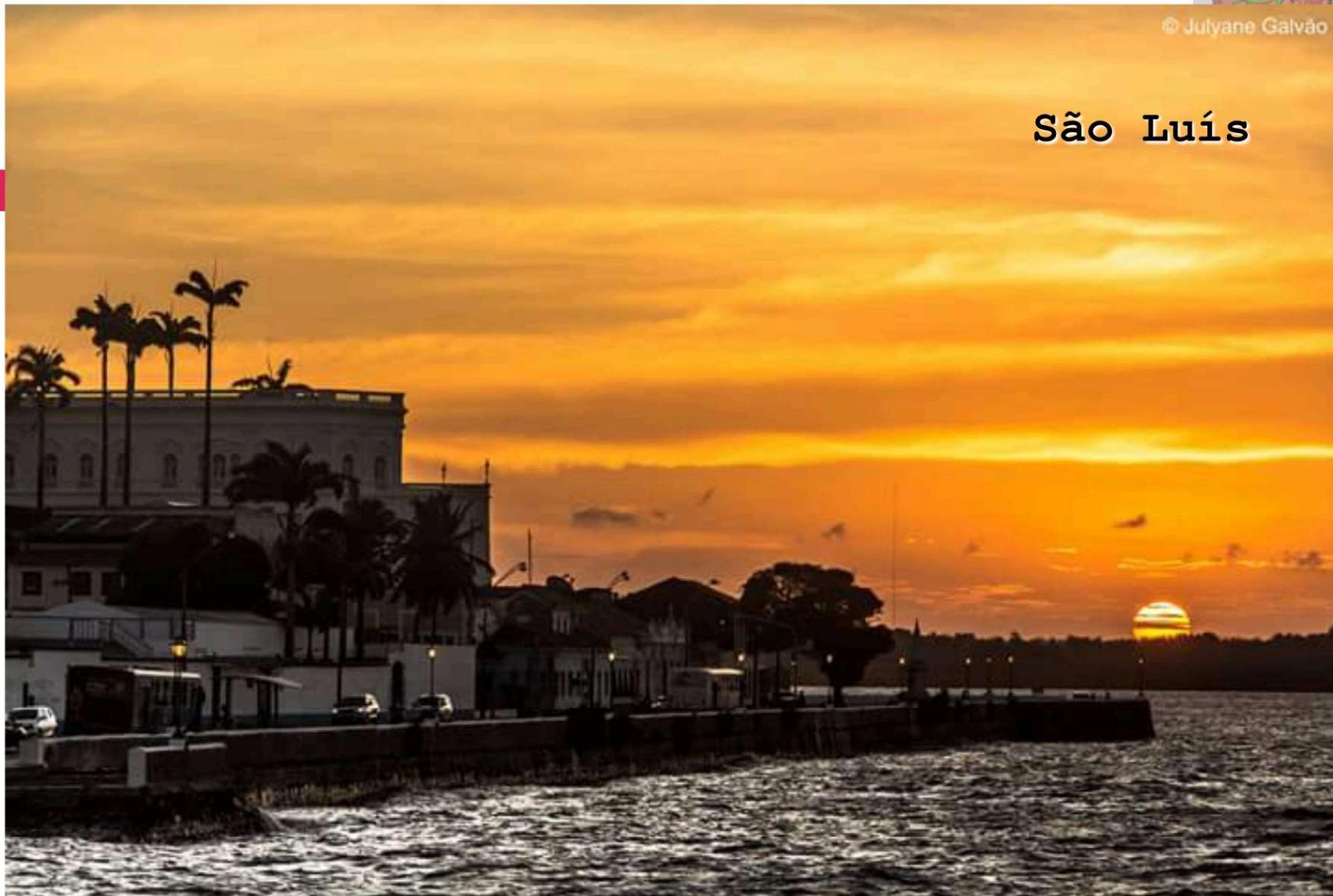


ALPPS: the Devil Is the Indication

Paulo Herman

© Julyane Galvão

São Luís



IHPBA 2016 · SÃO PAULO

12TH WORLD CONGRESS OF THE INTERNATIONAL
Hepato-Pancreato-Biliary Association

April 20-23 2016 - Brazil

SHERATON WTC - SÃO PAULO

Obrigado!