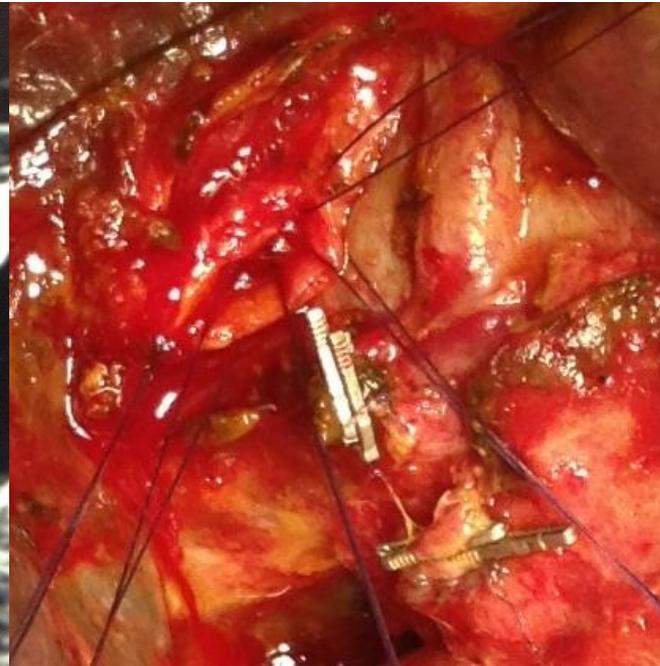




## LESÕES BENIGNAS DAS VIAS BILIARES

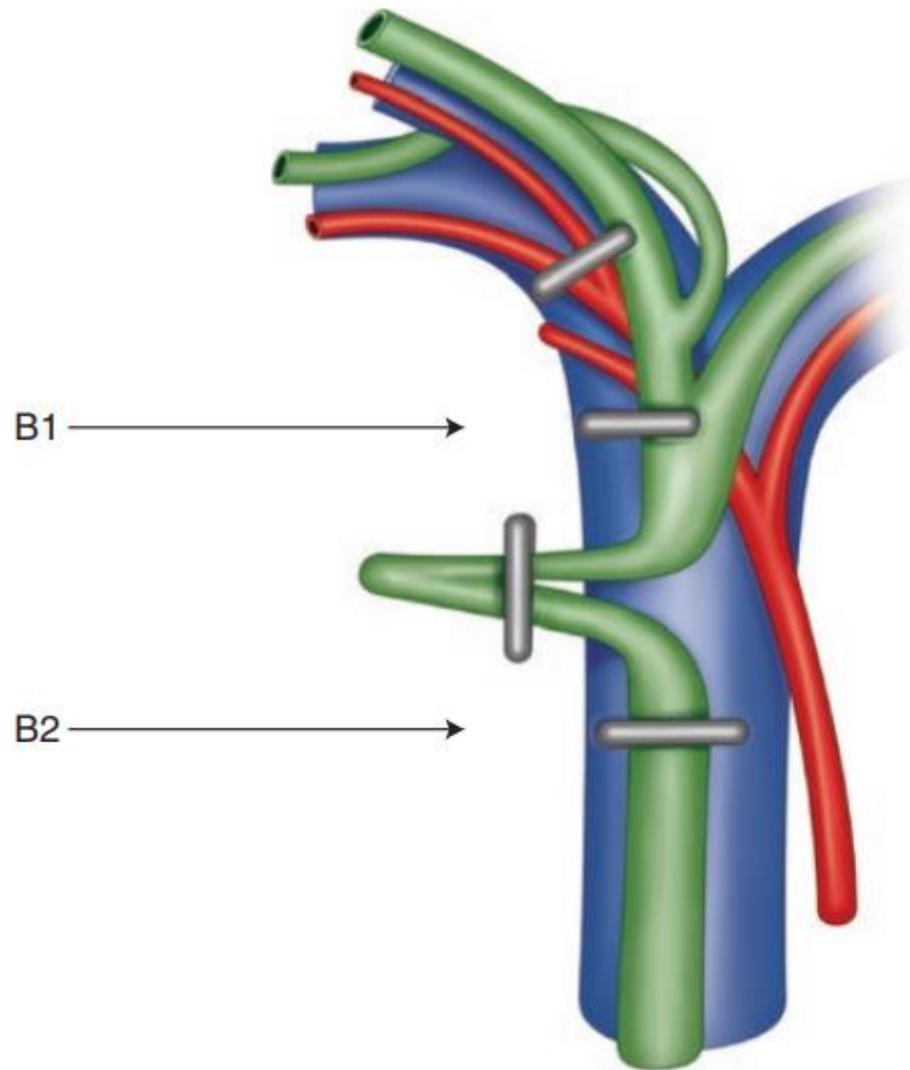


**TRATAMENTO CIRÚRGICO**

**Orlando Jorge Martins Torres**

Professor Titular e Chefe do  
Serviço de Cirurgia do Aparelho Digestivo  
(Unidade hepatopancreatobiliar)  
Hospital Universitário - UFMA

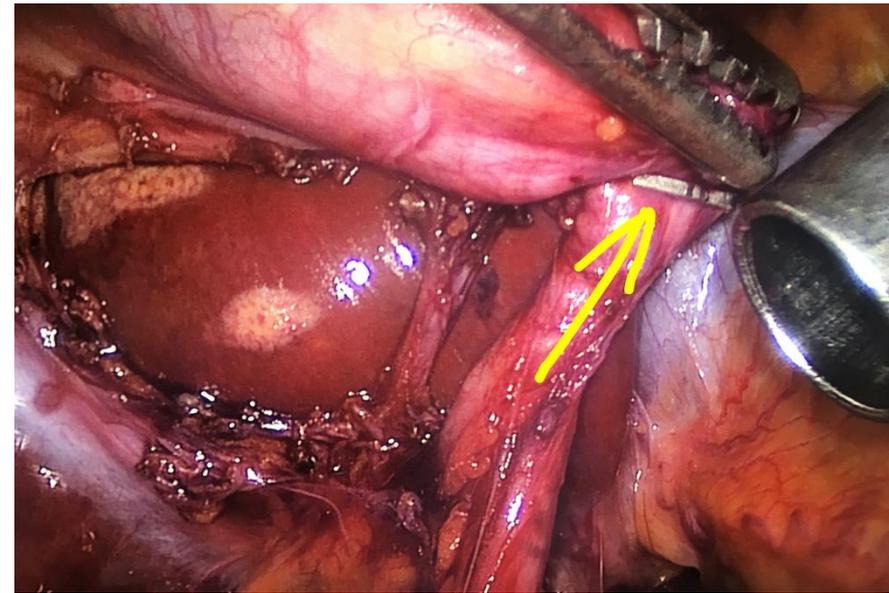
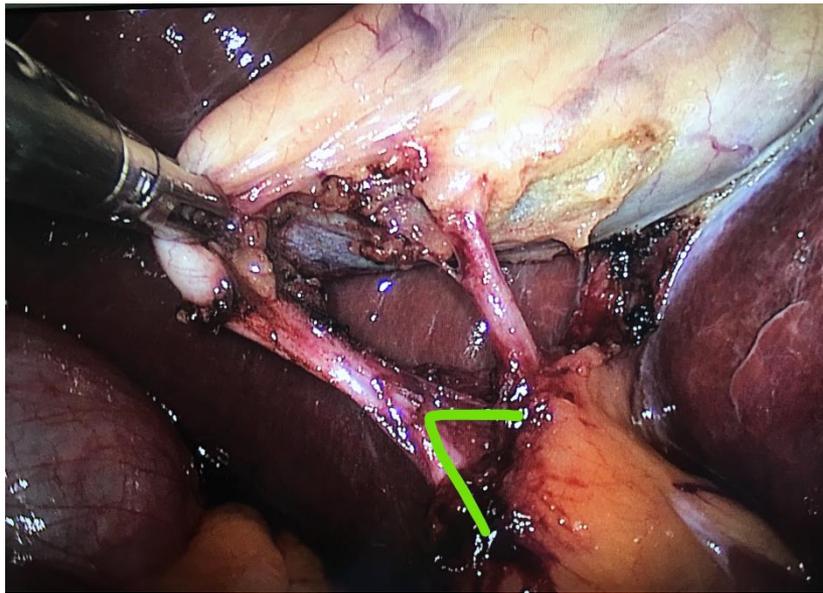
# LESÕES BENIGNAS DAS VIAS BILIARES



# LESÕES BENIGNAS DAS VIAS BILIARES

- INTRAOPERATÓRIO
- PÓS-OPERATÓRIO PRECOCE
  - Icterícia
  - Fístula biliar (coleperitoneo)
- PÓS-OPERATÓRIO TARDIO
  - Estenose

# INTRAOPERATÓRIO

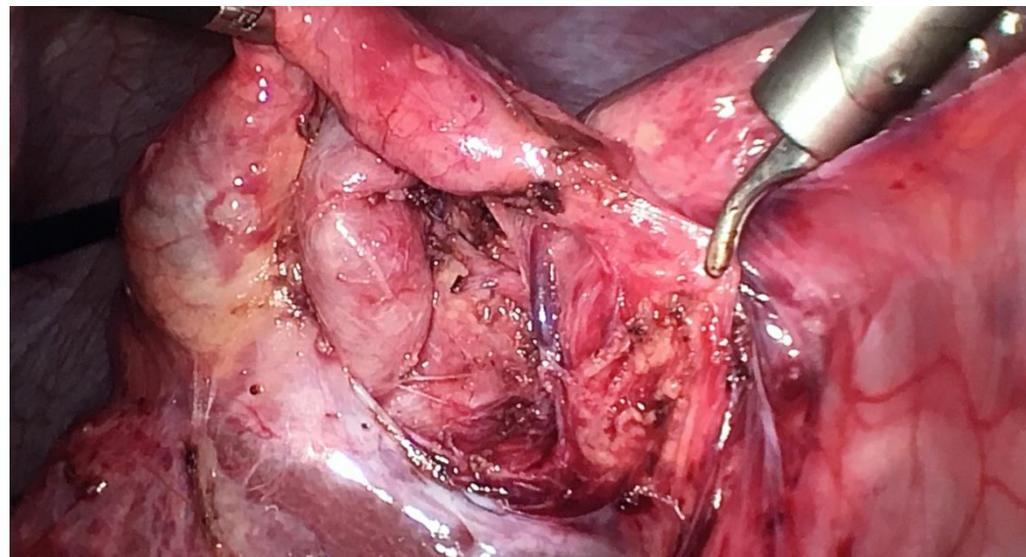
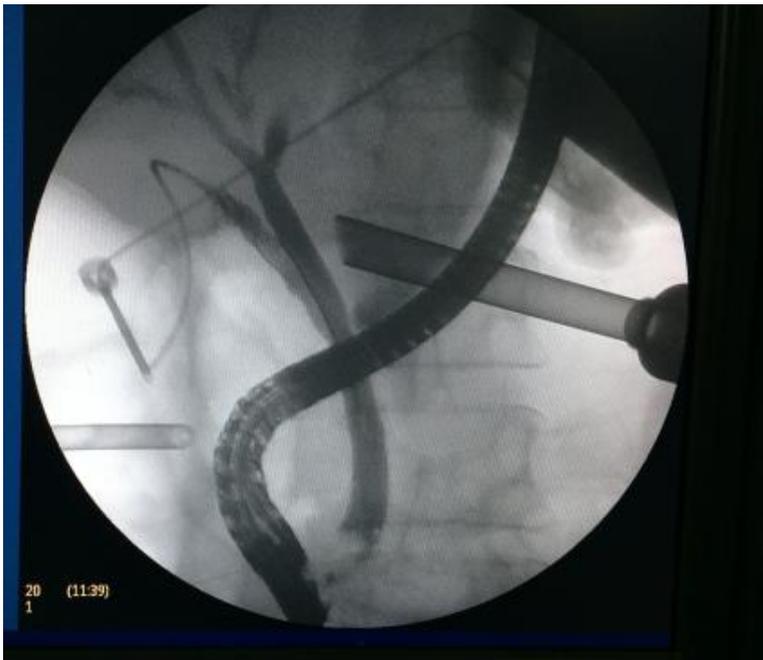


☐ CLIPE OU LIGADURA DA VIA BILIAR

**RETIRAR**



# INTRAOPERATÓRIO



Cirurgião com expertise

EXPERTISE EM CIRURGIA HEPATOBILIAR:

**SIM**

Converter

**NÃO**

Não converter

Drenar

Referenciar



# Early Versus Delayed Surgical Repair and Referral for Patients With Bile Duct Injury

## *A Systematic Review and Meta-analysis*

*Xiang Wang, MD, Wen-Long Yu, MD, Xiao-Hui Fu, MD, Bin Zhu, MD, Teng Zhao, MD, and Yong-Jie Zhang, MD✉*

Referenciar precoce  
 Reparo tardio

Reparo na sala - pior

Bile duct injury:

**to err is human; to refer is divine**

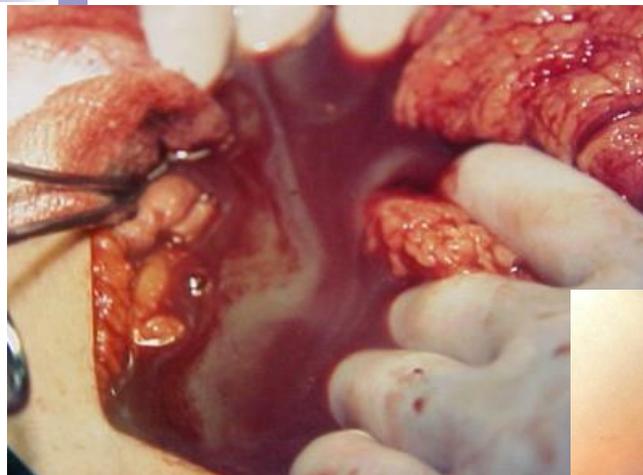
# ABDOME AGUDO

- Coleperitônio
- Sinais de irritação peritoneal
- Peritonite
- Instabilidade
- Não drenado

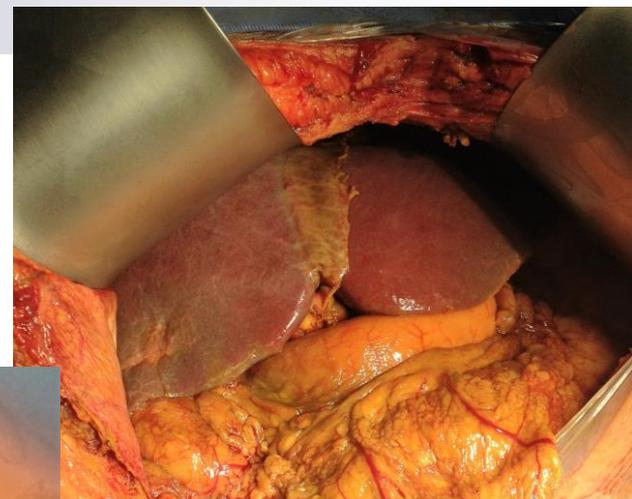
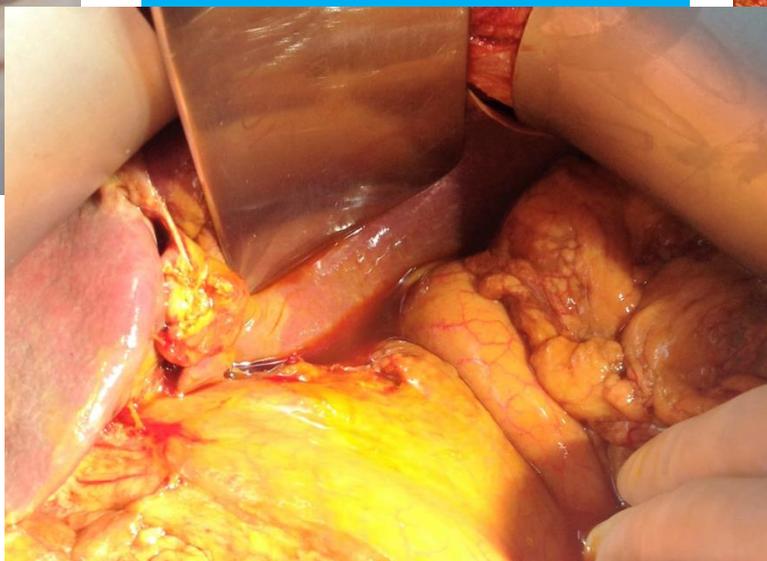
## CIRURGIA DE URGÊNCIA:

- Laparoscopia
- Laparotomia

# ABDOME AGUDO



## COLEPERITÔNIO



- Lavagem da cavidade
- Drenagem abdominal

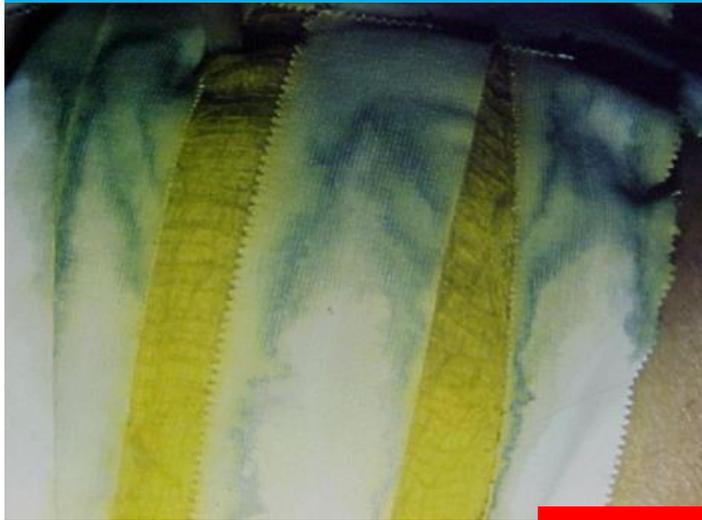
## VIA BILIAR

- Não colocar drenos
- Não ligar
- Não fazer cirurgia definitiva



- ❑ História clínica (colecistectomia)
- ❑ Saída de secreção biliar
- ❑ Laboratório:
  - Alterações Hidroeletrolíticas
  - Bilirrubina do dreno (3x a sérica)
  - Inflamatórias
- ❑ Imagem
  - Colangiografia pelo dreno de Kehr
  - CPRE
  - Colangiografia transparietal
  - Colangiorressonância (RNM)
  - Fistulografia

# PÓS-OPERATÓRIO PRECOCE



- Fístula biliar (Coleperitônio)
- Icterícia precoce



# CLASSIFICAR A LESÃO

**Table 2** Summary of the most commonly used BDI classification systems

	BDI classification systems								
	Bismuth [92, 93]	Strasberg [90]	McMahon [94]	Bergman [95]	Csendes [97]	Stewart-Way [98, 103]	Hannover [17]	Lau [99]	ATOM [100]
<b>Bile leakage</b>									
Cystic duct leak or leaks from small ducts in liver bed		A		A	Type I		Type A	Type 1	NMBD
Occlusion of an aberrant RHD		B						Type 2	
Leak from an aberrant RHD		C							
Lateral injury to CBD < 50% diameter		D						Type 2	
Laceration > 25% of CBD			Major bile duct injury	B					
Transection of CBD or CHD			Major bile duct injury	D	Type III	Class II/III	Type D	Type 3	
Resection of more than 10 mm of the CBD					Type IV				
Tangential injury of the CBD							Type C		
Right/left hepatic duct or sectoral duct injuries								Type 4	
Laceration < 25% of CBD			Minor bile duct injury			Class I			
Laceration of cystic-CBD junction			Minor bile duct injury		Type II				

# CLASSIFICAR A LESÃO

## Bile stricture

Stenosis of the main bile duct without injury (caused by a clip)

Type B

CBD stump > 2 cm

Type I E1

MBD 1

CBD stump < 2 cm

Type II E2

MBD 2

Ceiling of the biliary confluence is intact

Type III E3

MBD 3

Ceiling of the confluence is destroyed

Type IV E4

MBD 4

Type I, II or III + stricture of an isolated right duct

Type V E5

Development of post-operative CBD stricture

Major bile duct injury C

Type E

## Vascular lesion

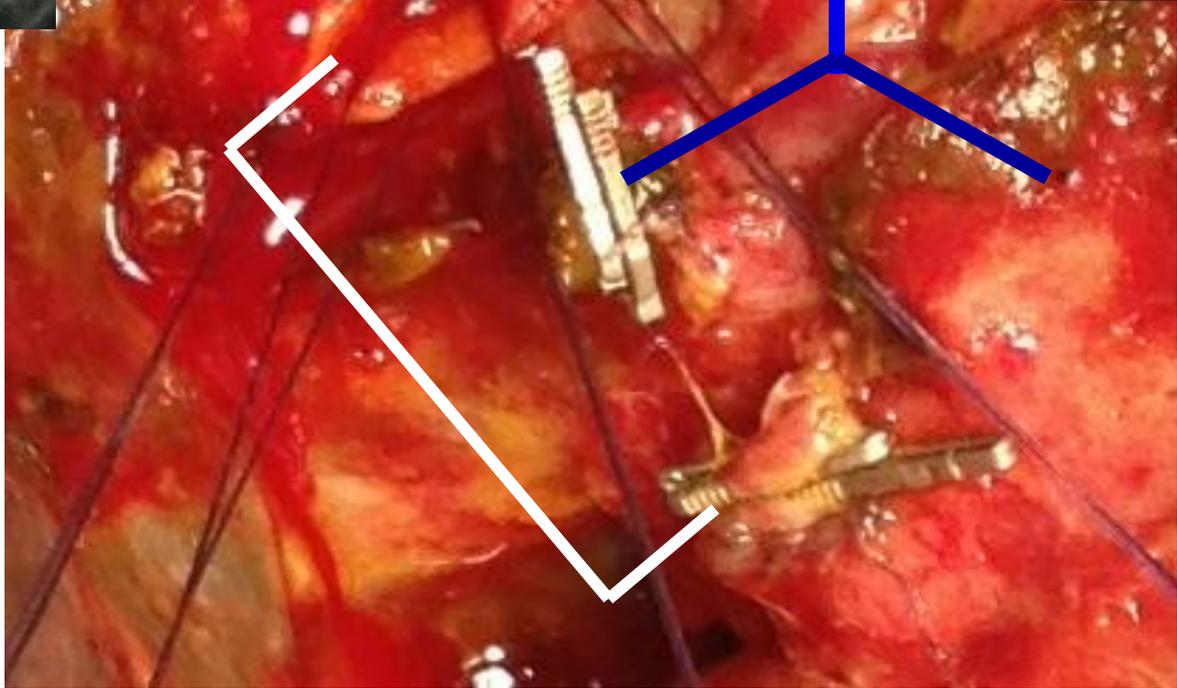
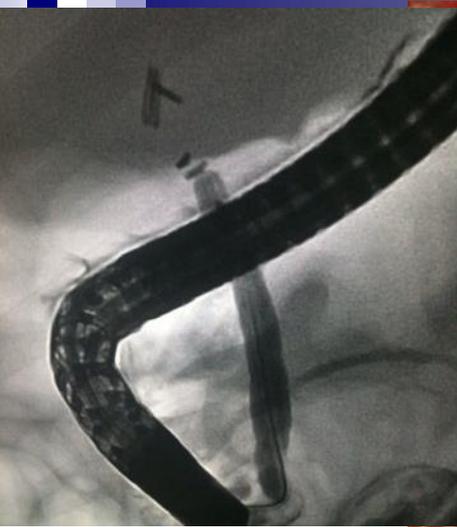
Right hepatic artery + RHD transected

Class IV

Type D

Type 5 VBI+

RHD right hepatic duct, CBD common bile duct, CHD common hepatic duct, NMBD non-main bile duct, MBD main bile duct, VBI vasculobiliary injury



# CLASSIFICAR A LESÃO

Classification system	Lesional Group		
	Group A	Group B	Group C
Hannover	A1, A2	B1, B2, C1, C2, C3, C4, D1, D2, D3, D4	C2d, D2d, D3d, D3dpv, D3pv, D4c, D4d, D4dpv
Neuhaus	A1, A2	B1, B2, C1, C2, D1, D2, E1, E2, E3	n/a
Stewart-Way	I	II, III	IV
Strasberg-Bismuth	A	B, C, D, E1, E2, E3, E4, E5	n/a
Siewert	I	II, IIIa, IIIb	IVa, IVb

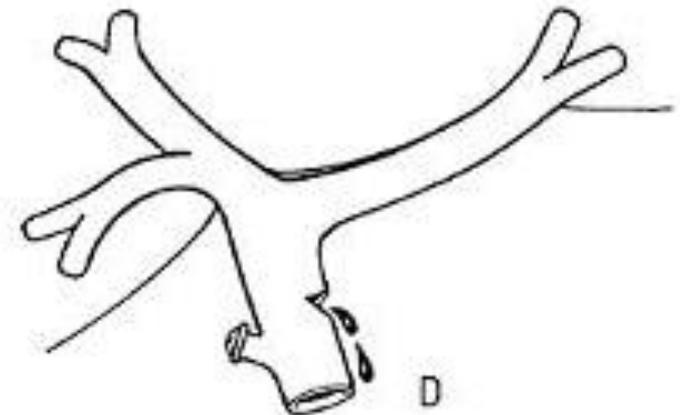
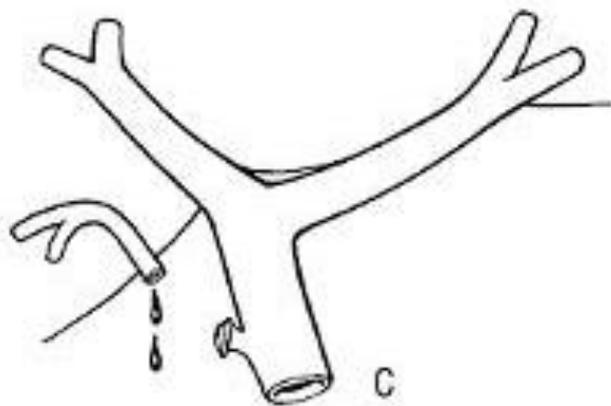
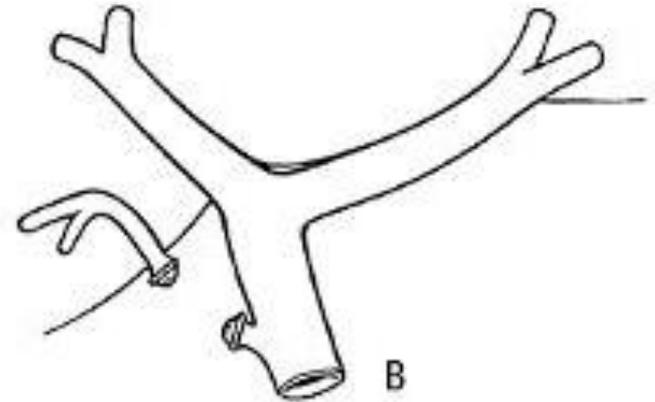
n/a, not applicable.

# CLASSIFICAR A LESÃO



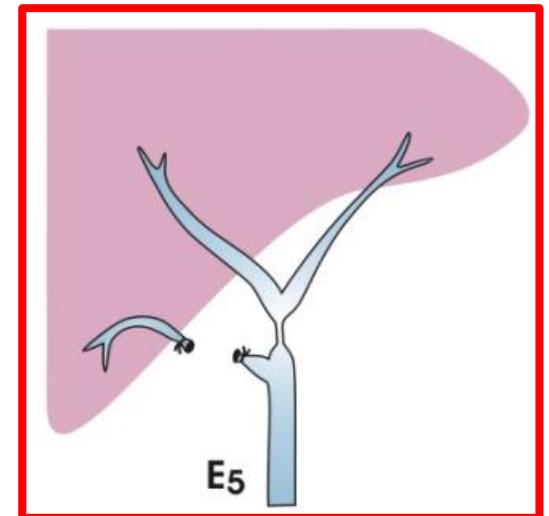
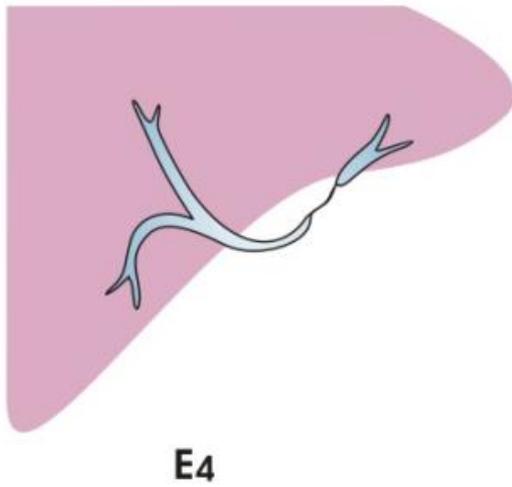
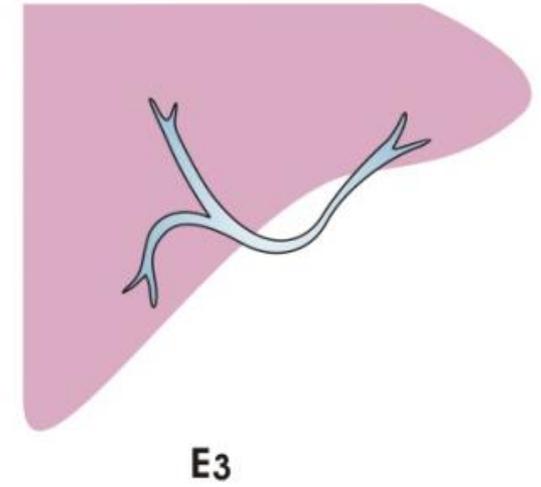
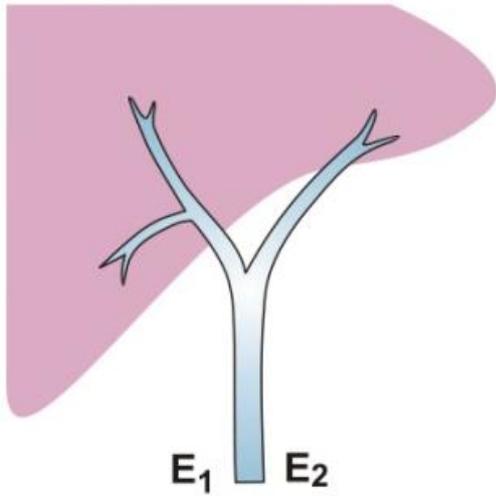
Strasberg S, et al. J Am Coll Surg. 1995

# CLASSIFICAR A LESÃO



**POUCOS CASOS SÃO CIRÚRGICOS**

# CLASSIFICAR A LESÃO

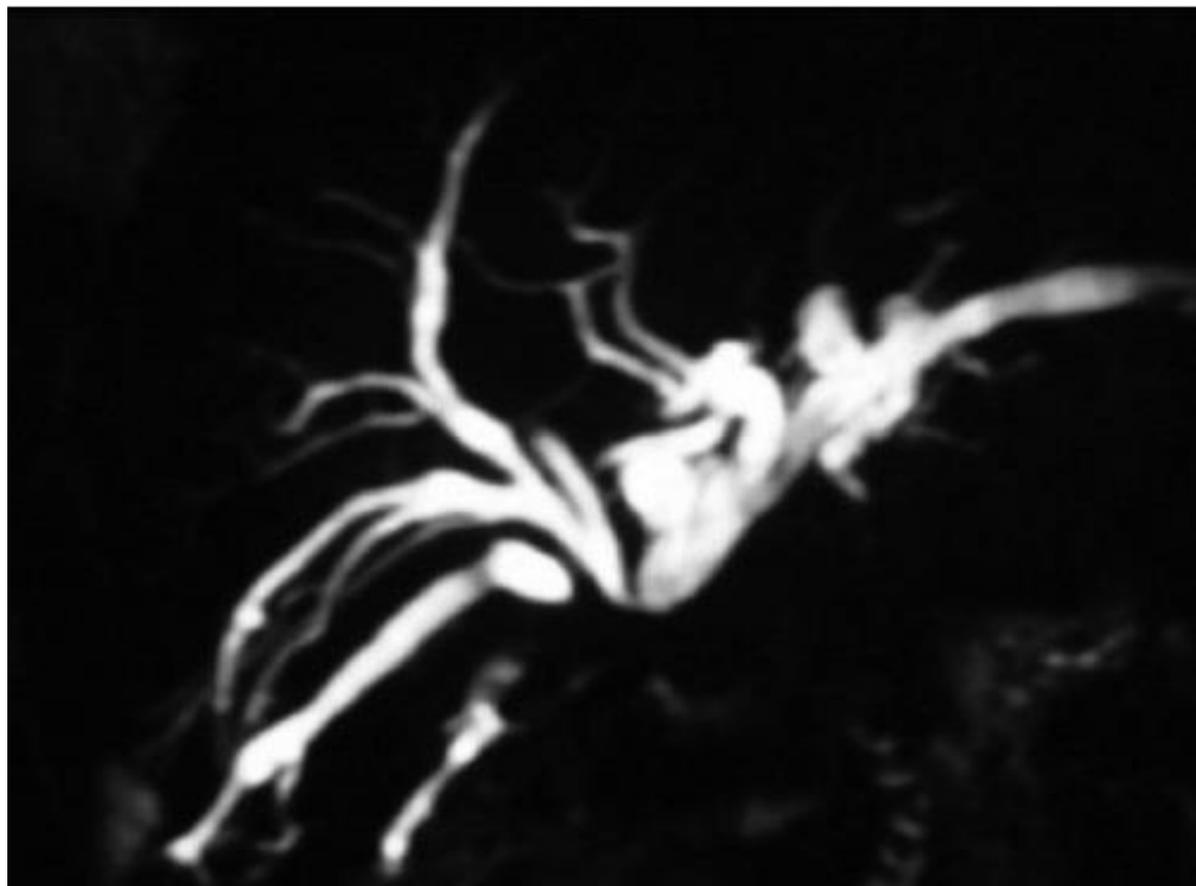


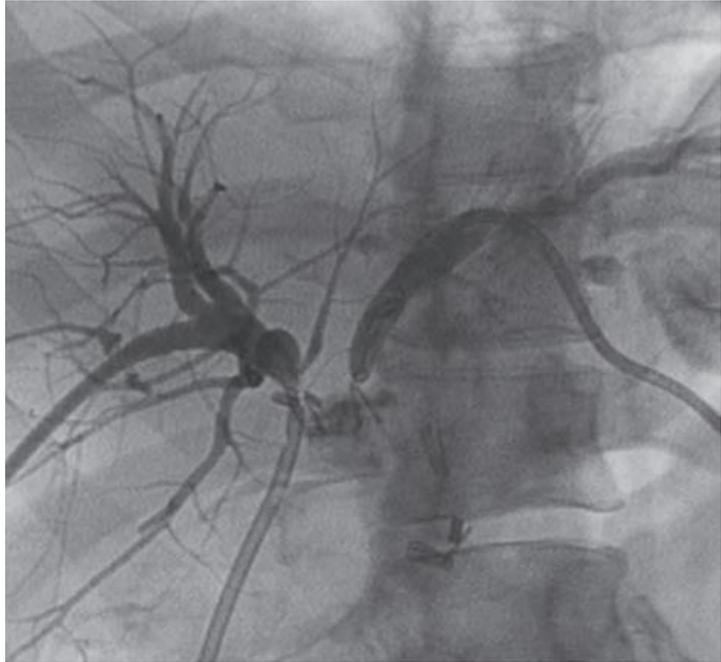


E2

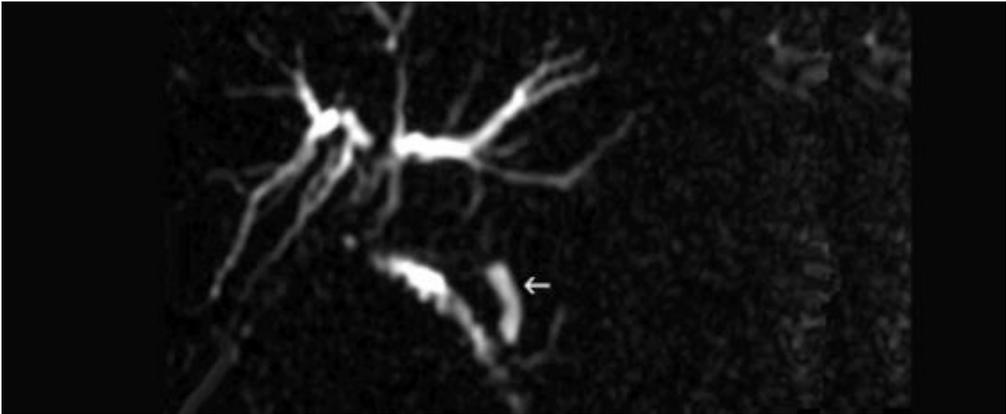
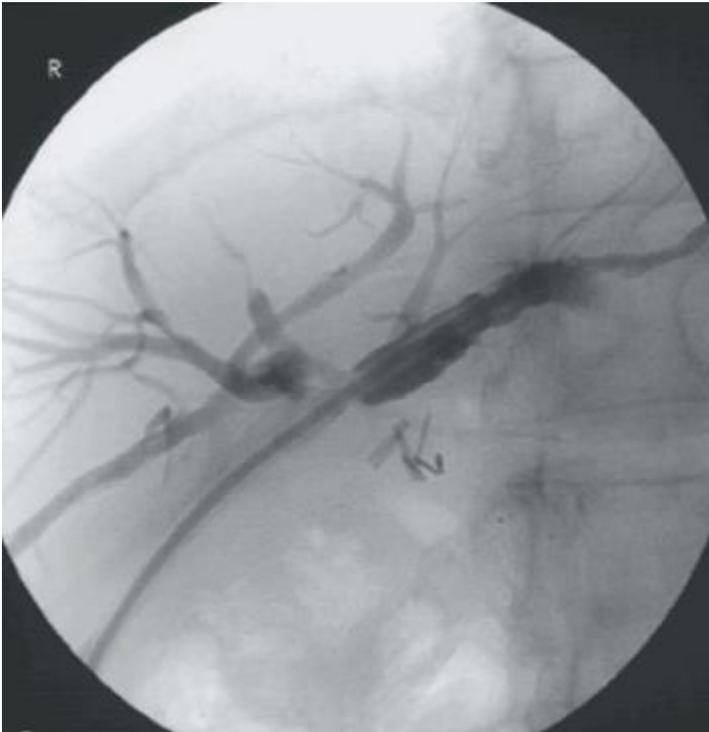


E3





**E4**



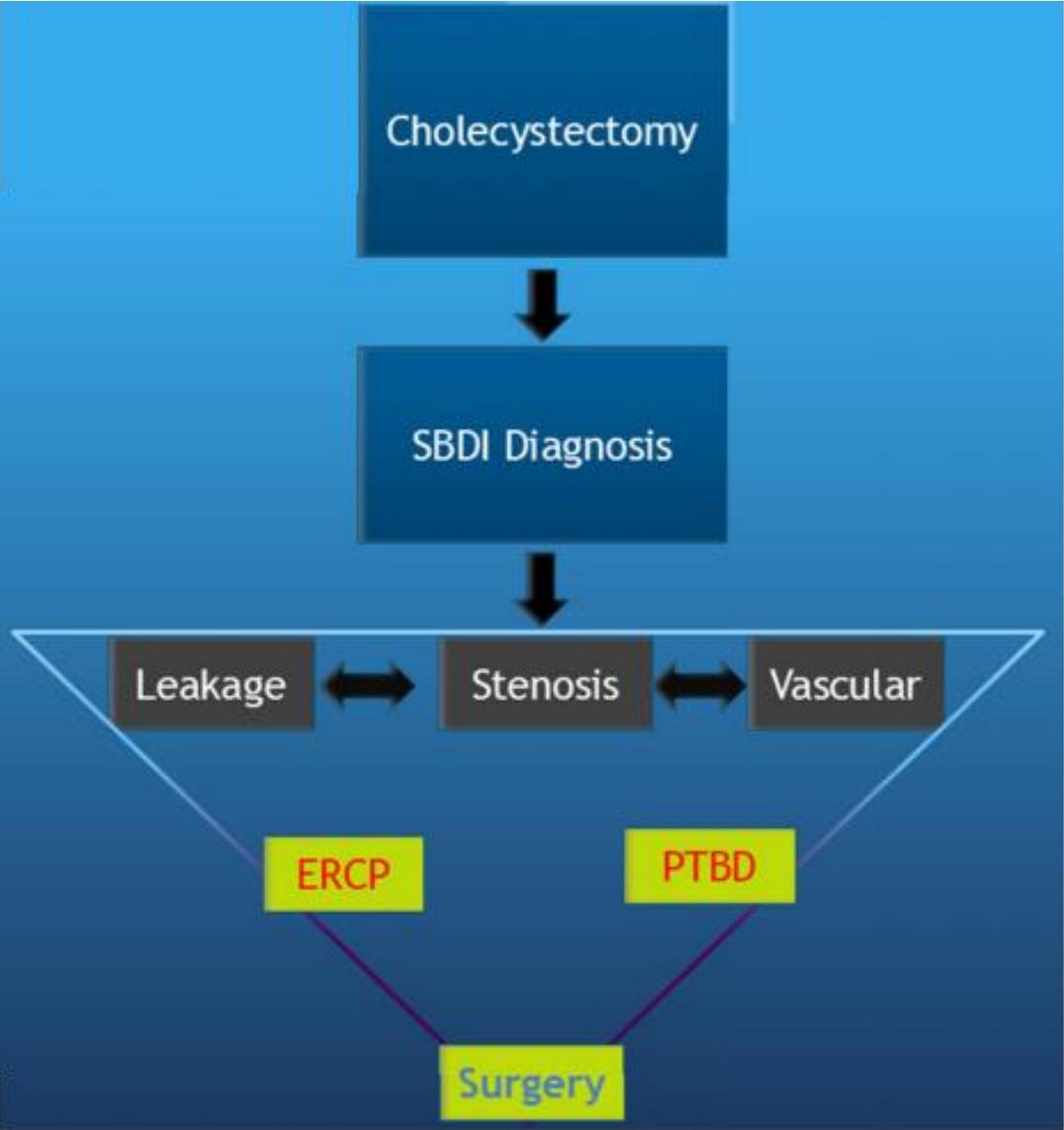
# TRATAMENTO

**Table 3:** Bile duct injuries followed up and treated at ANTRH

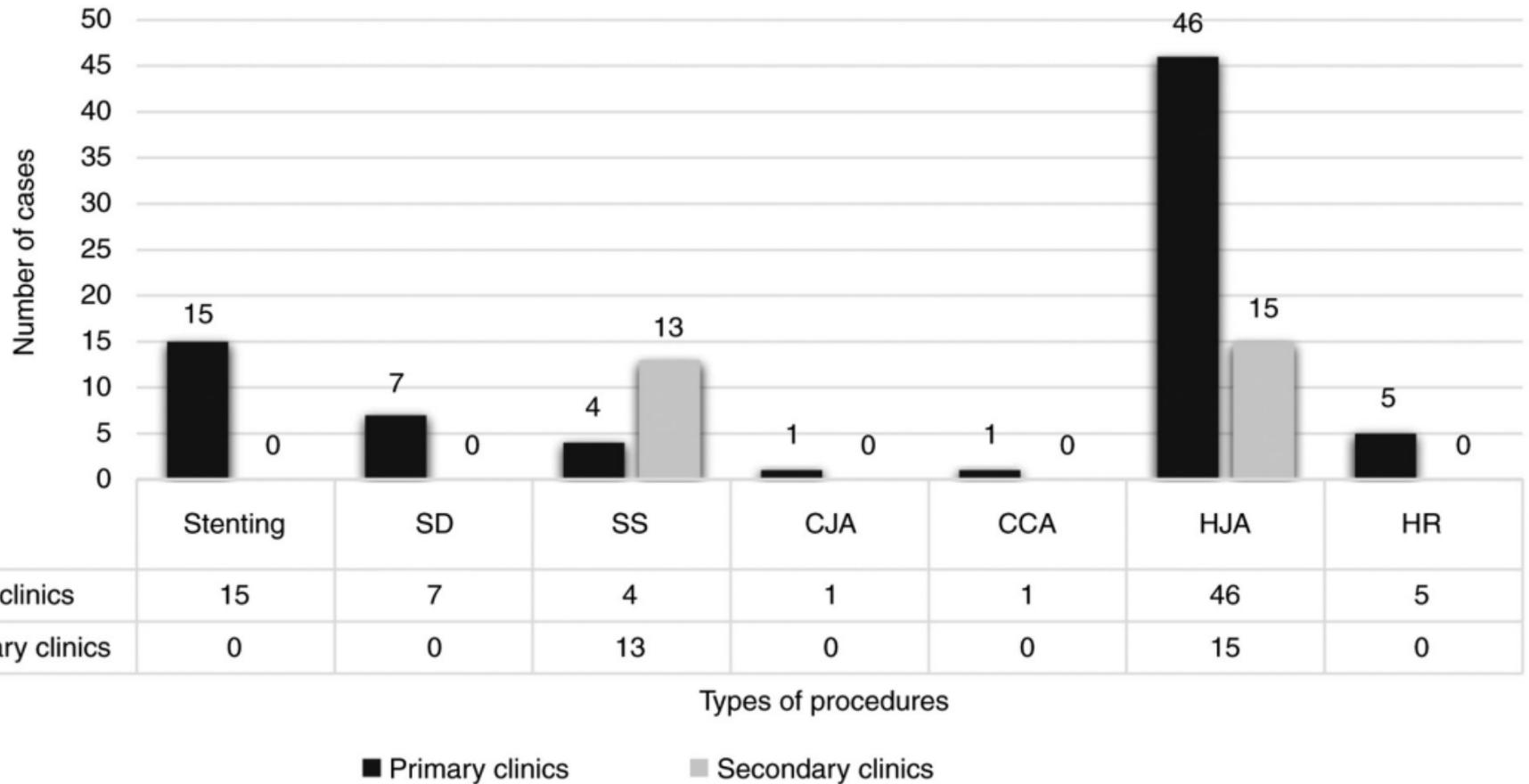
Type of injury	ANTRH (%)	Preoperative diagnosis	Postoperative diagnosis	Outer center (%)	Total (%)	Medical treatment (%)	Endoscopic treatment (%)	Surgical treatment (%)	Total (%)
A	28 (60.8)	2	26	20 (54)	48 (57.8)	4 (4.8)	42 (50.6)	2 (2.4)	48 (57.8)
B	1 (2.2)	1	–	–	1 (1.2)	–	–	1 (1.2)	1 (1.2)
C	4 (8.8)	–	4	4 (10.8)	8 (9.6)	–	7 (8.4)	1 (2.4)	8 (9.6)
D	6 (13)	4	2	5 (13.5)	11 (13.3)	–	3 (3.6)	8 (9.6)	11 (13.3)
E1	3 (6.5)	2	1	2 (5.4)	5 (6.1)	–	–	5 (6)	5 (6.1)
E2	4 (8.7)	3	1	3 (8.1)	7 (8.4)	–	–	7 (8.4)	7 (8.4)
E3	–	–	–	2 (5.4)	2 (2.4)	–	–	2 (2.4)	2 (2.4)
E4	–	–	–	1 (2.7)	1 (1.2)	–	–	1 (1.2)	1 (1.2)
E5	–	–	–	–	–	–	–	–	–
Total	46 (100)	12 (26)	34 (74)	37 (100)	83 (100)	4 (4.8)	52 (62.6)	27 (32.6)	83 (100)

ANTRH, Ankara Numune Training and Research Hospital

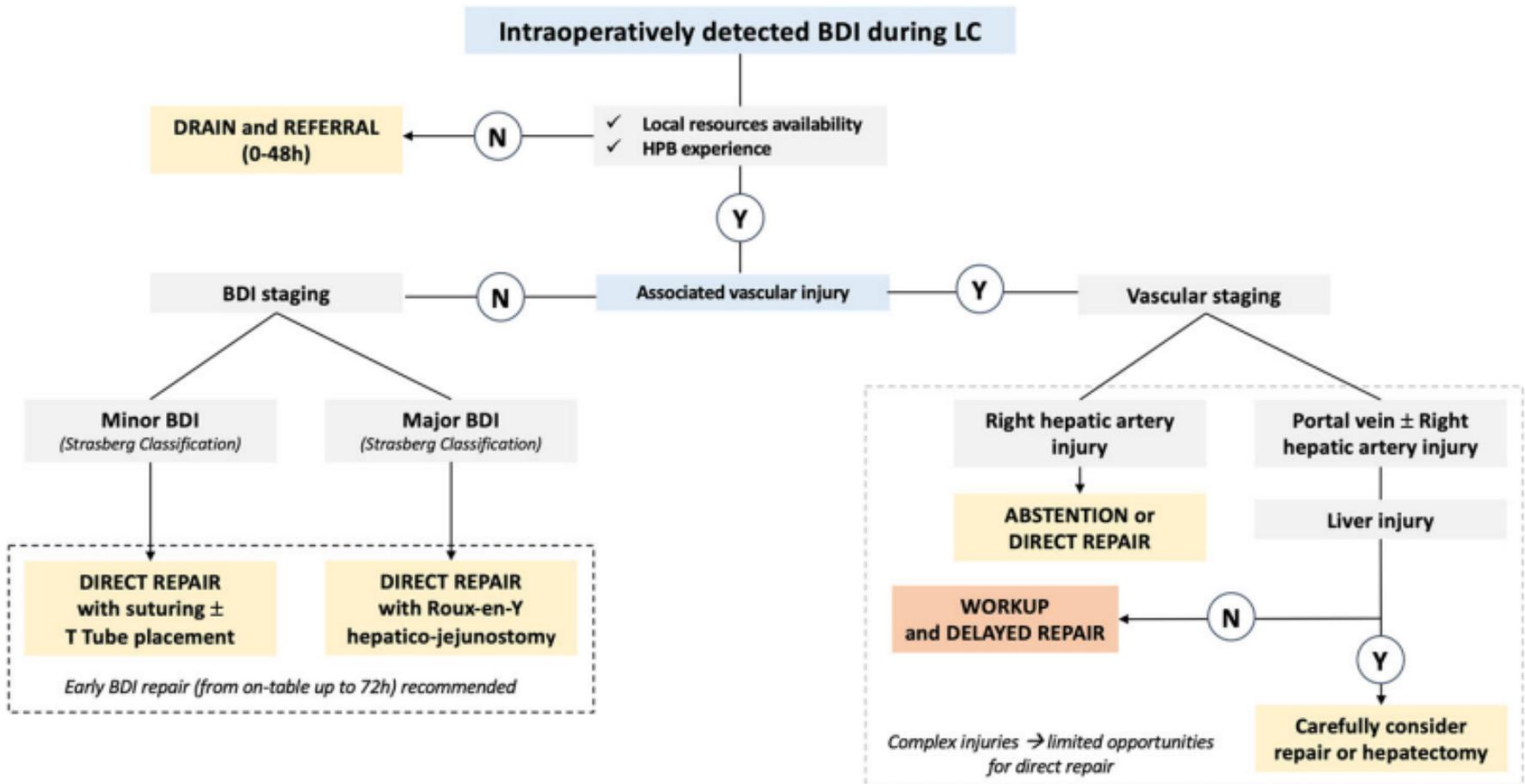
**CIRURGIA 32,6%**



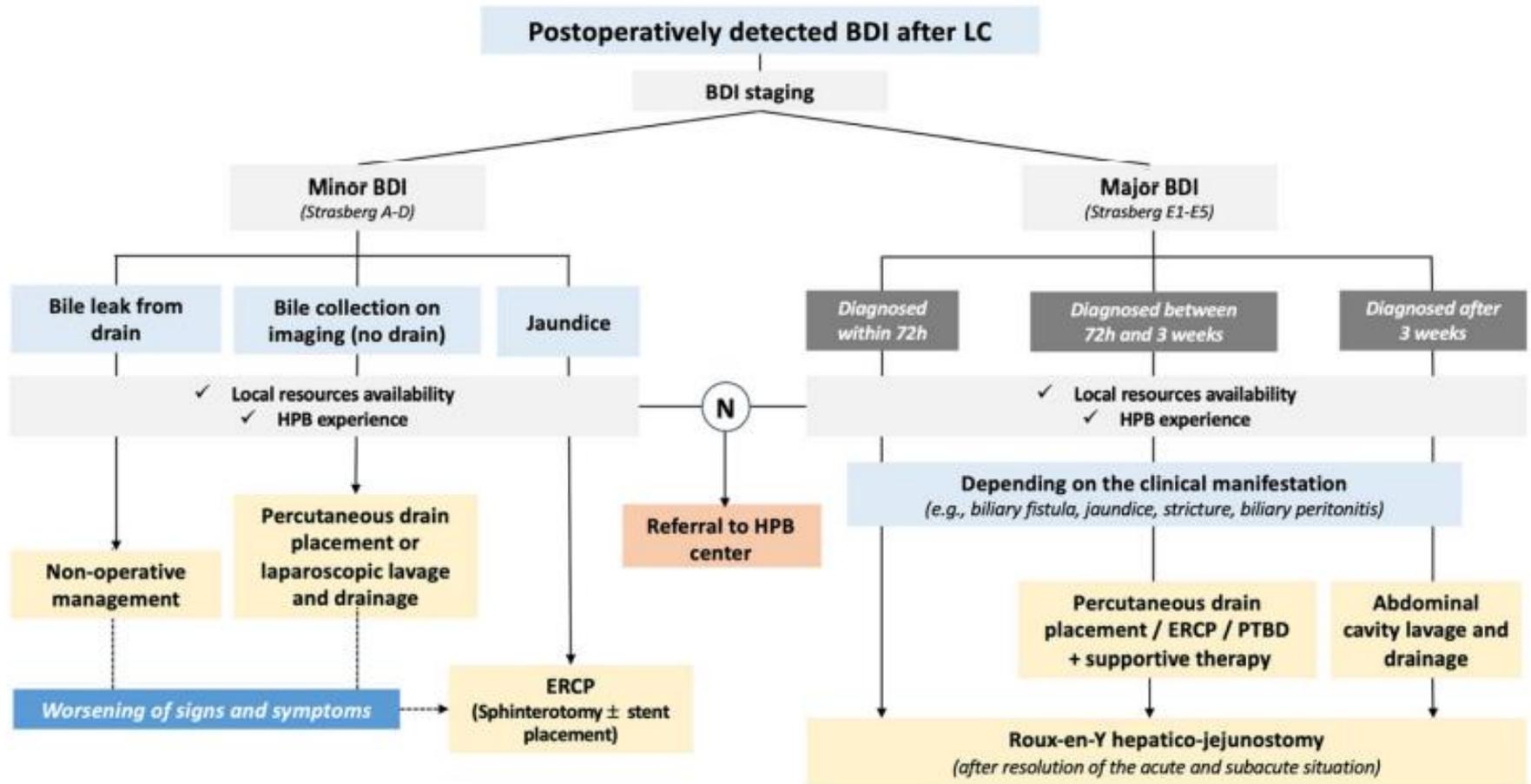
# TRATAMIENTO



# TRATAMIENTO

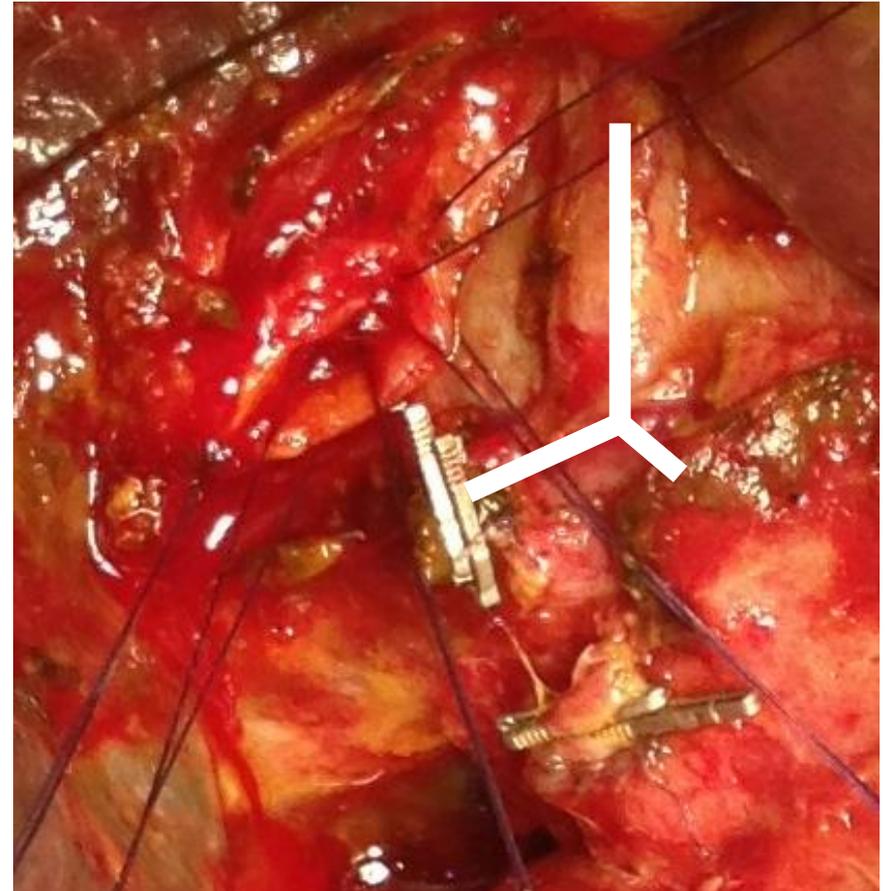
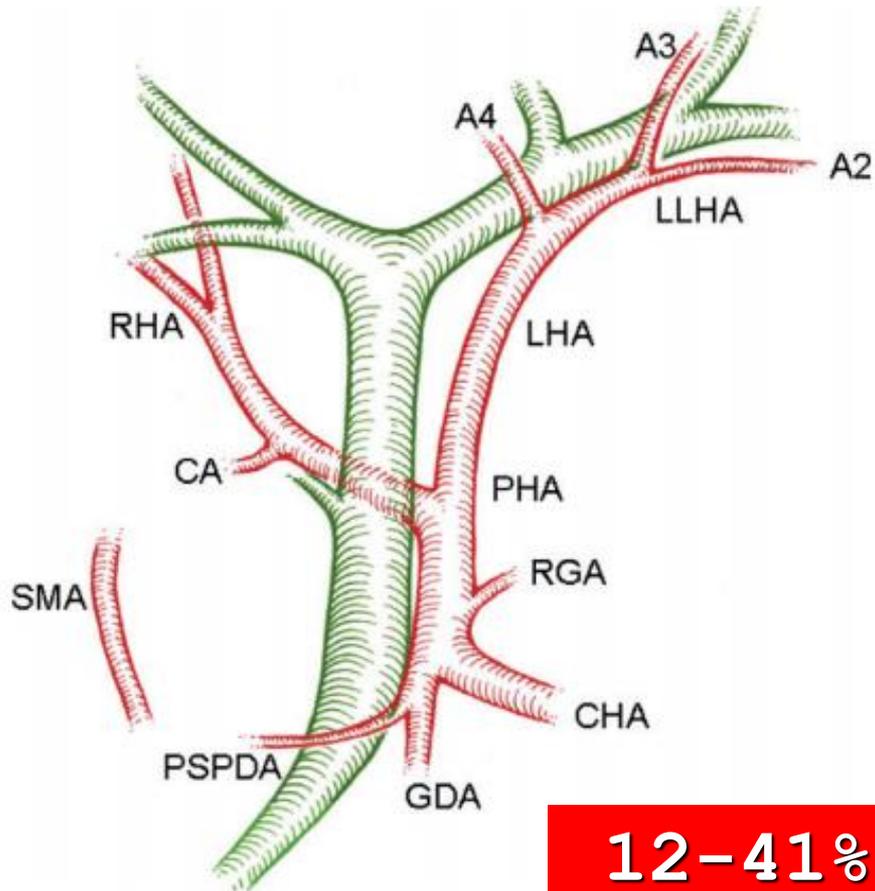


# TRATAMENTO



# ENVOLVIMENTO VASCULAR

- ☐ Angiotomografia
- ☐ Arteriografia

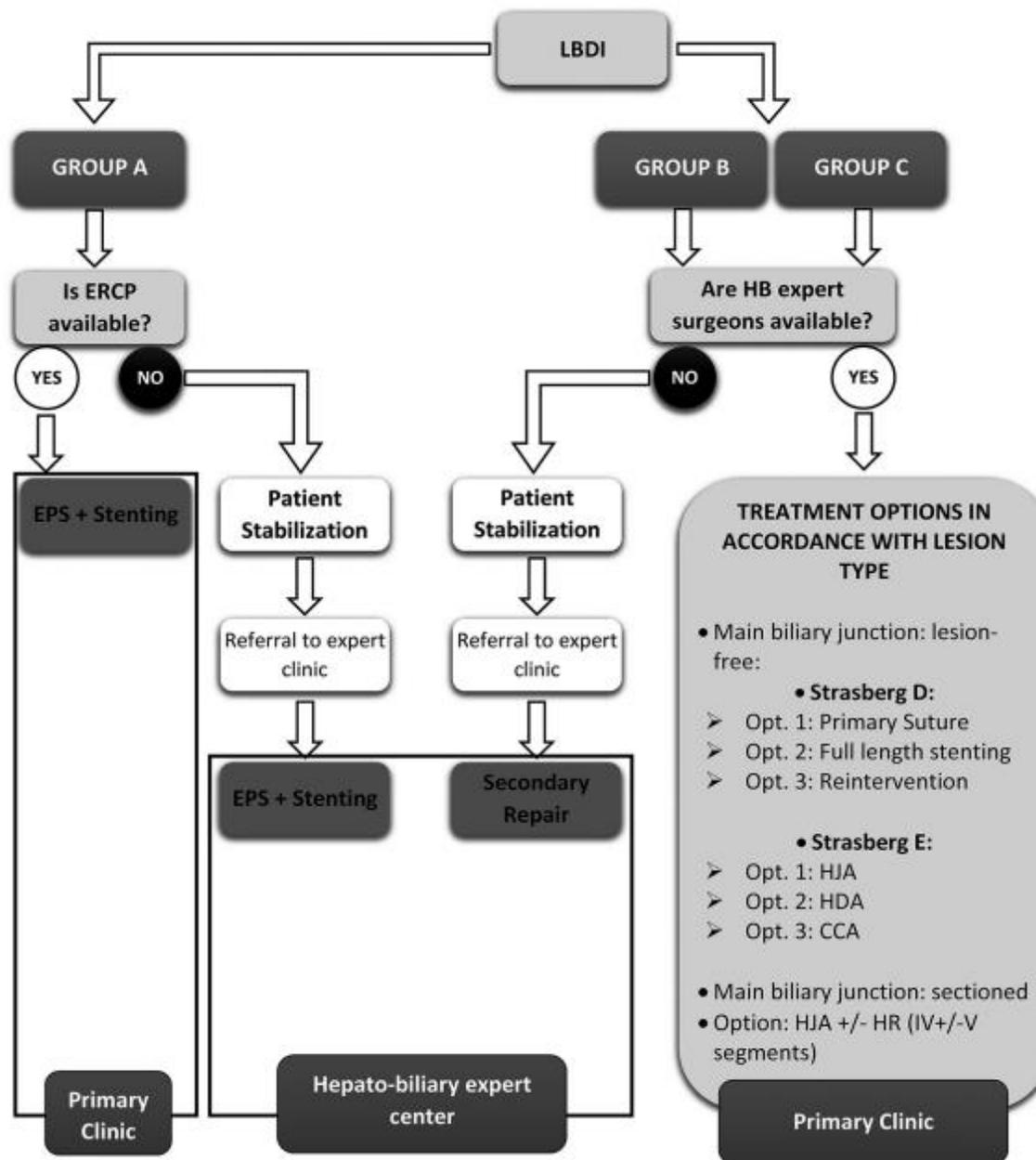


# PREPARO PRÉ-OPERATÓRIO

- ❑ **Drenar coleções**
  - Tomografia/US
  - Laparoscopia/laparotomia
- ❑ **Controlar infecção**
  - Antibióticos
- ❑ **Suporte nutricional**
  - Oral/enteral/parenteral

# MOMENTO DA REOPERAÇÃO

	<b>Early Day 0–7 (n = 339)</b>	<b>Intermediate Day 8–42 (n = 261)</b>	<b>Late Day 43–183 (n = 313)</b>	<b>p</b>
Time from cholecystectomy (days)	1 (0–3)	15 (11–26)	91 (70–121)	*
Clavien 3 & 4 within 90 d after HJ	74 (22)	40 (15)	54 (17)	0.102
Mortality within 90 days (Clavien 5)	8 (2.4)	7 (2.7)	2 (0.64)	0.137
Biliary intervention after 90 d	42 (12)	22 (8.4)	37 (12)	0.269
Revision HJ	12 (3.5)	14 (5.4)	9 (2.9)	0.284
Overall mortality	40 (12)	24 (9.2)	21 (6.7)	0.111

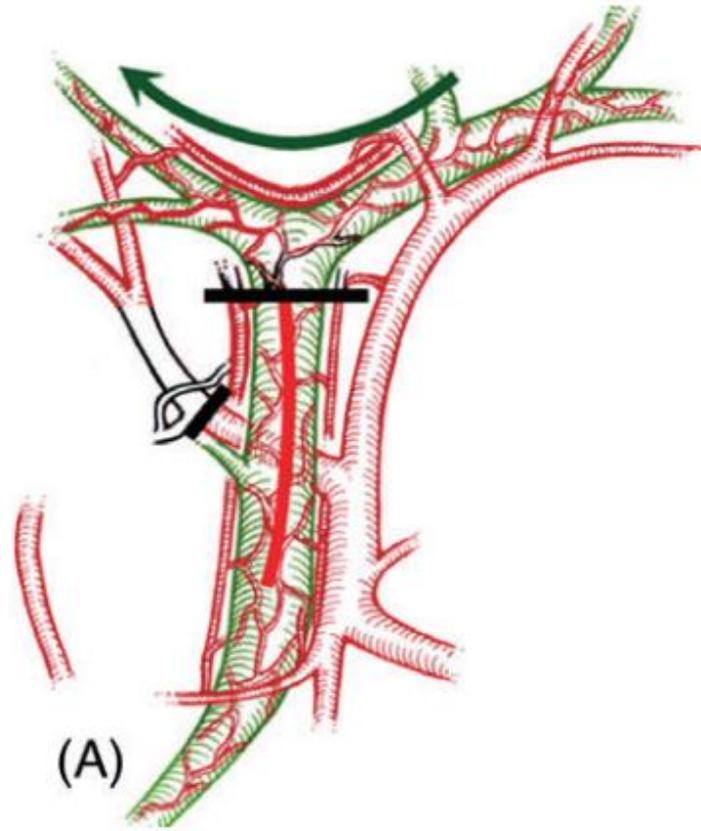
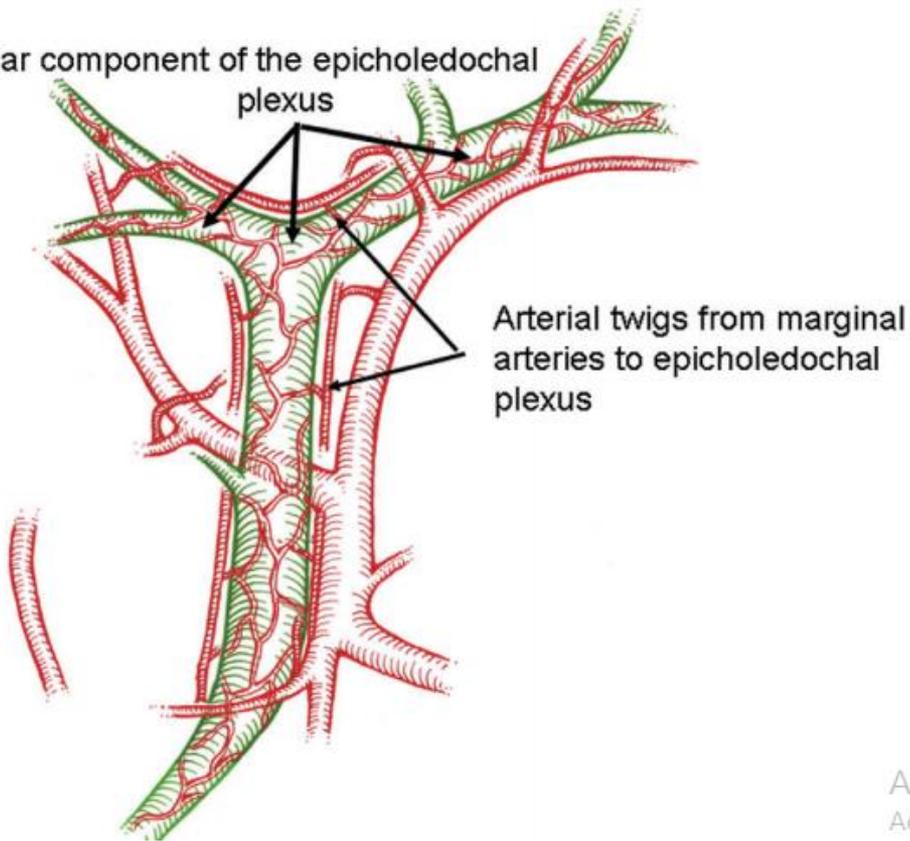


# ANASTOMOSE TÉRMINO-TERMINAL

- Lesões parciais (com ou sem dreno em T)
- Maioria trata com endoscopia
- Pode ser tratada por radiointervenção
- Procedimento adicional > 80%
- Estenose em até 90% (em 28 meses)
- Hepaticojejunosomia > 40%
- Hepatopatia crônica > 35%
- Transplante

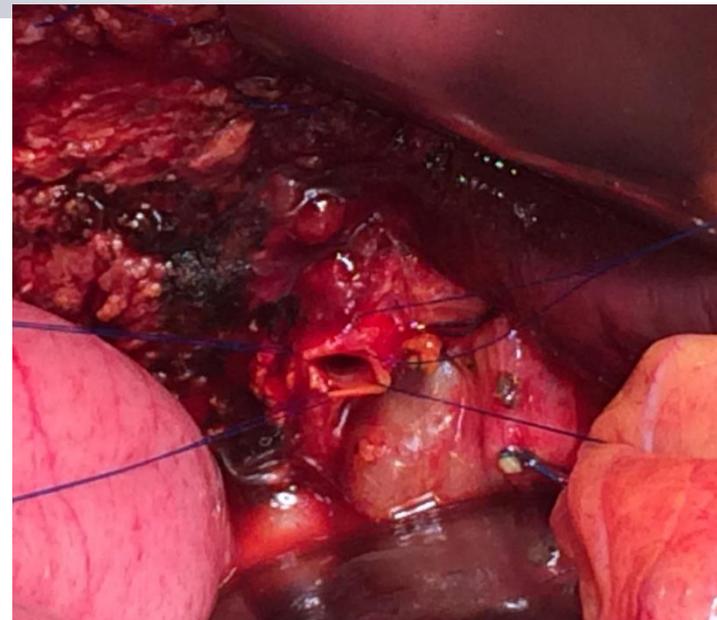
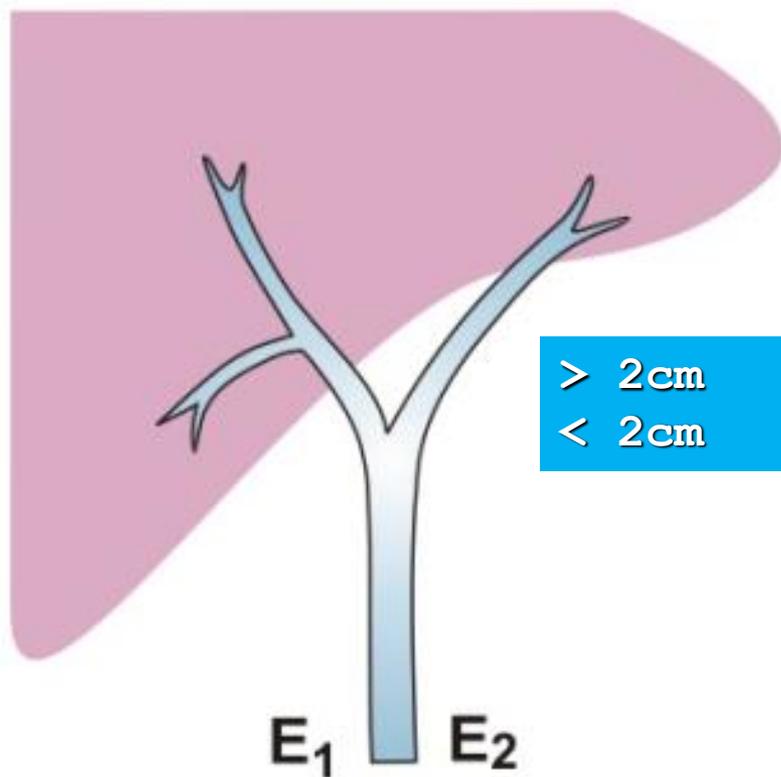
**NÃO**

Hilar component of the epicholedochal plexus



At  
Acc

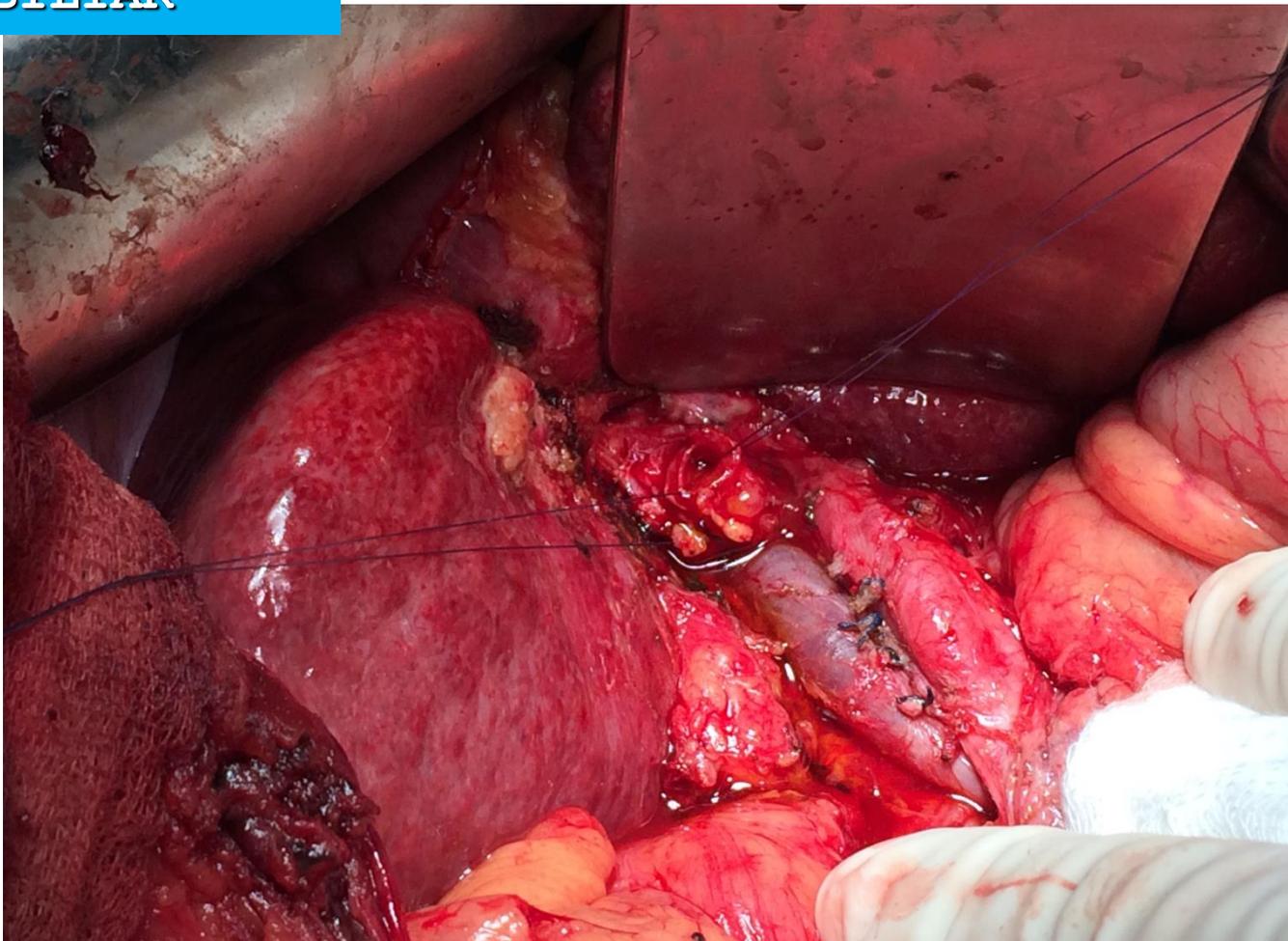
# LESÕES E1/E2



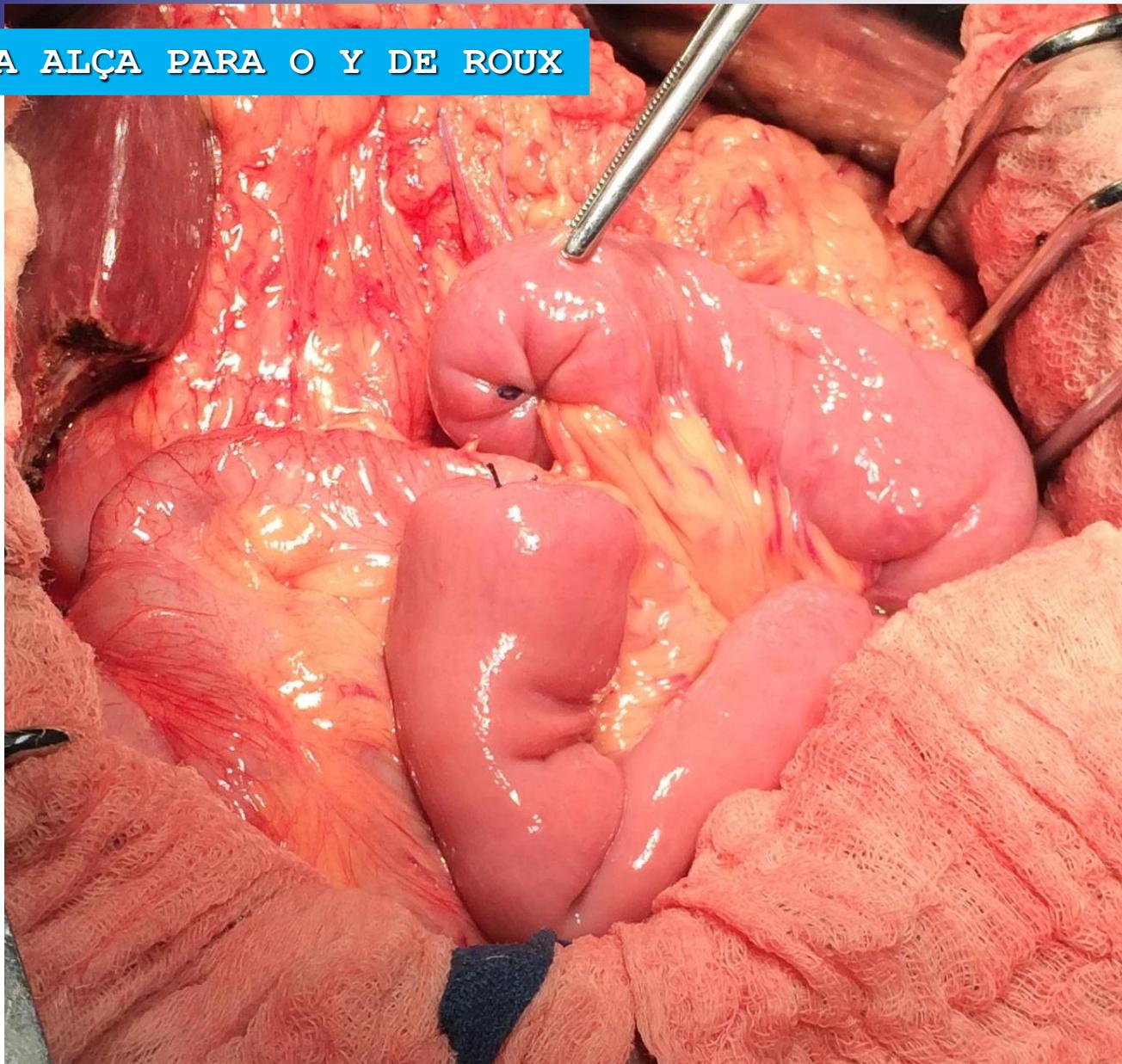
## Hepaticojejunostomia:

- Y de Roux
- Via biliar vascularizada
- < 2 cm da confluência
- Ducto-mucosa
- Pontos separados
- Sustentação

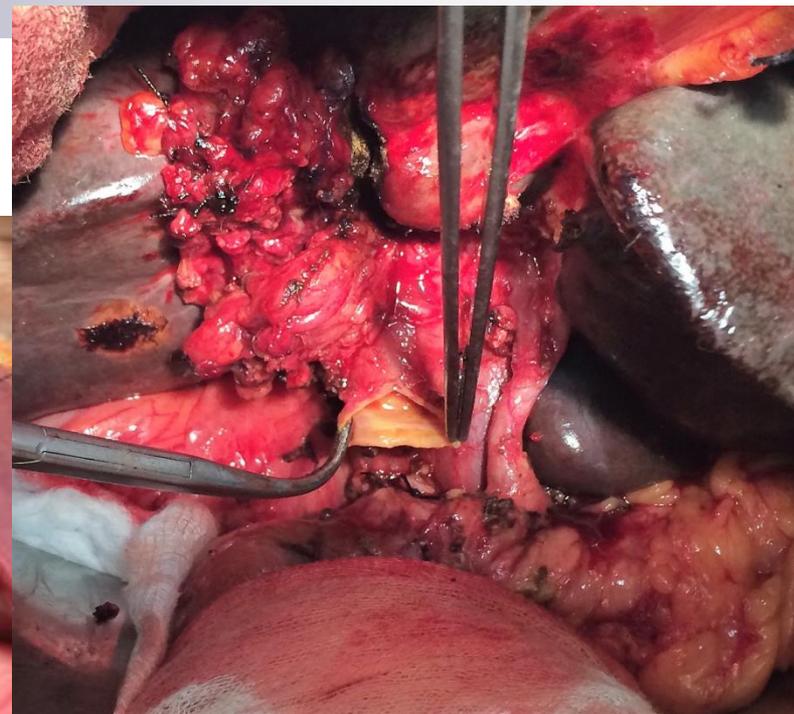
# IDENTIFICAÇÃO DA VIA BILIAR



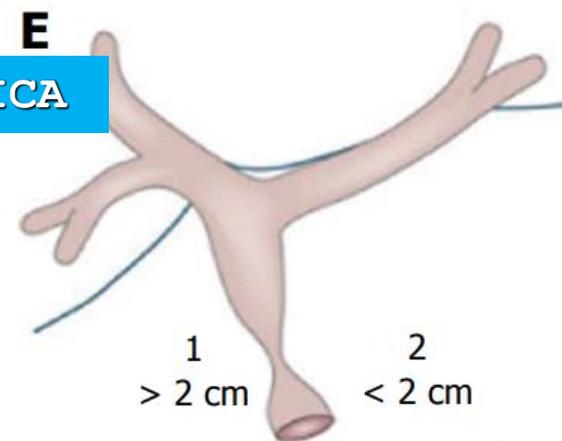
## PREPARO DA ALÇA PARA O Y DE ROUX



CABO DE GUARDA-CHUVA  
PARA ESQUERDA

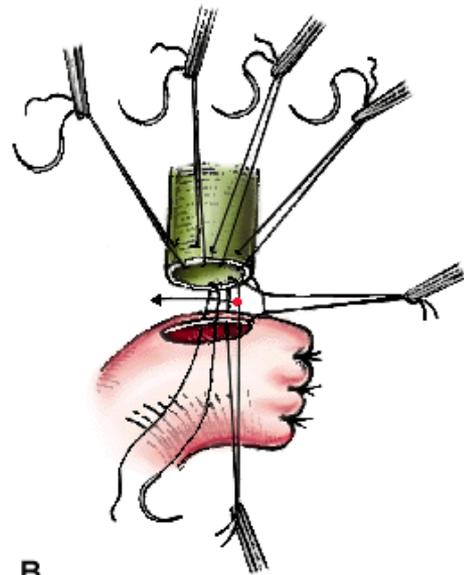


TRANSME SOCÓLICA

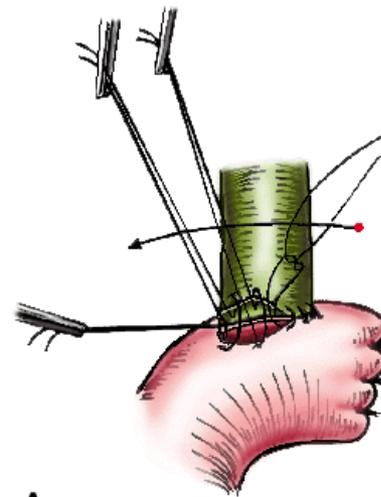
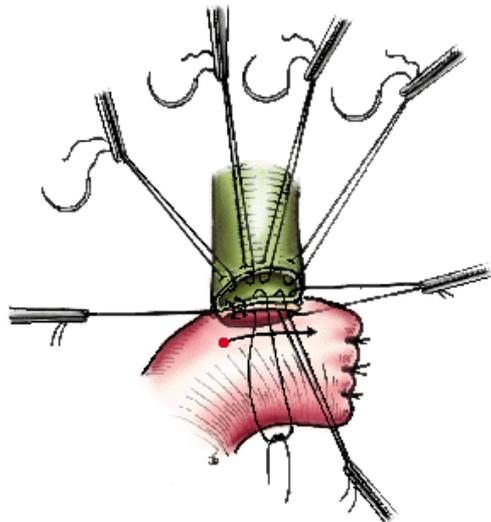
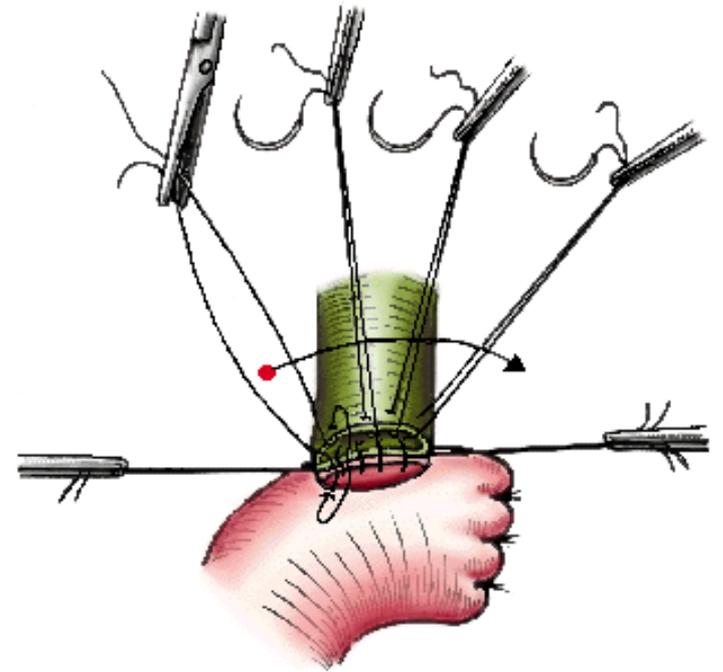




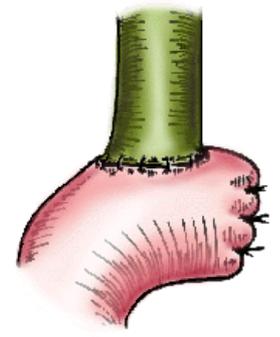
A



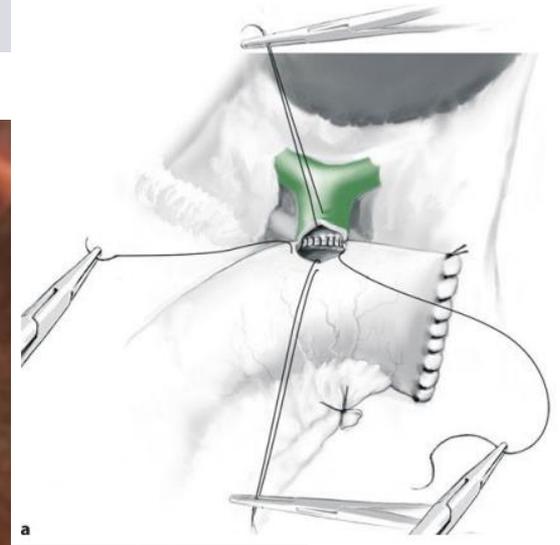
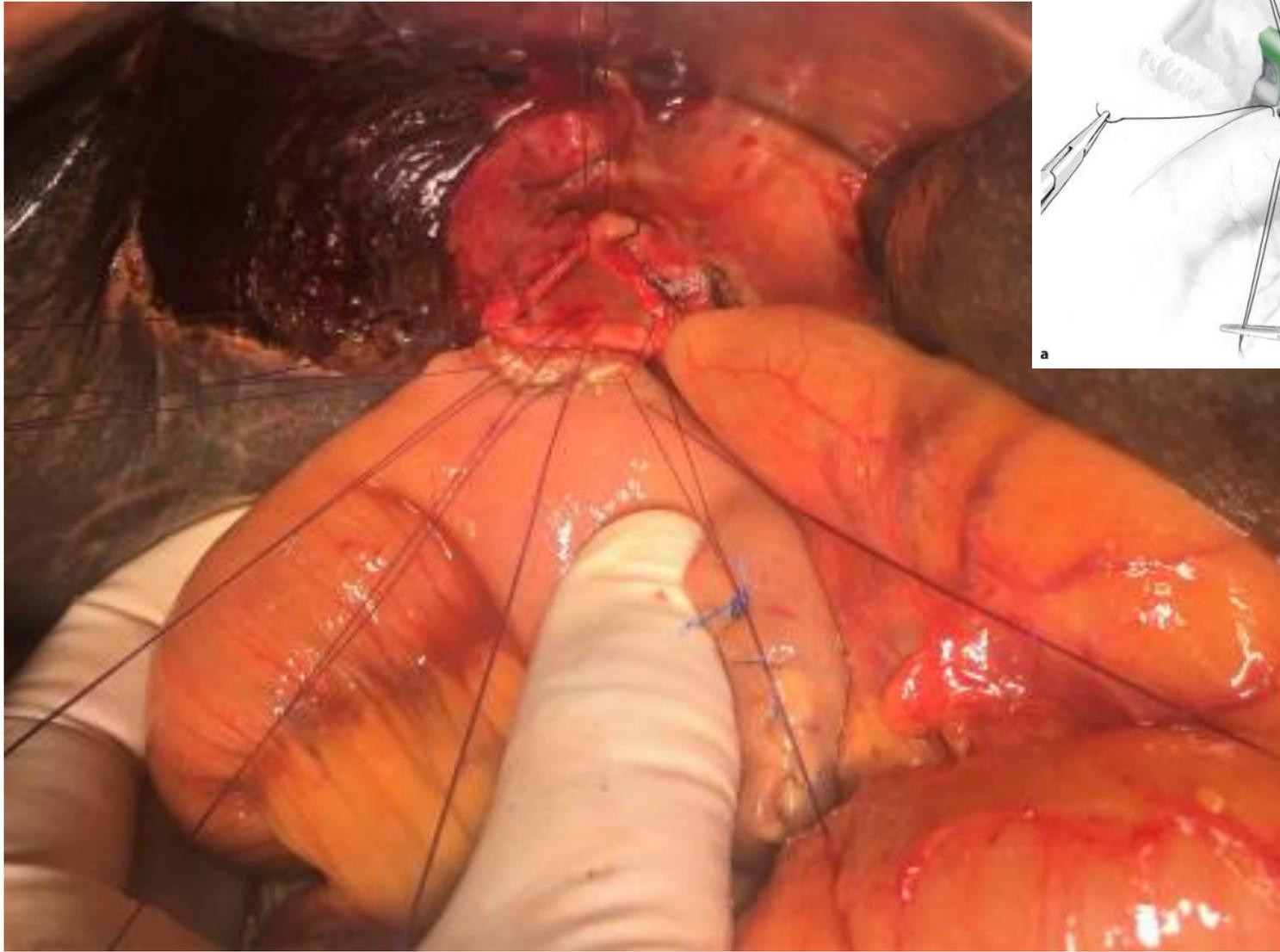
B

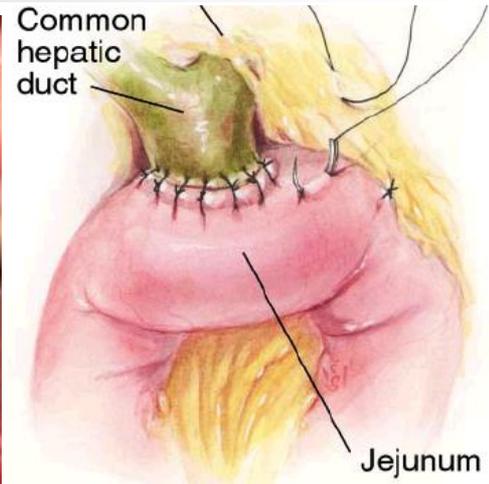
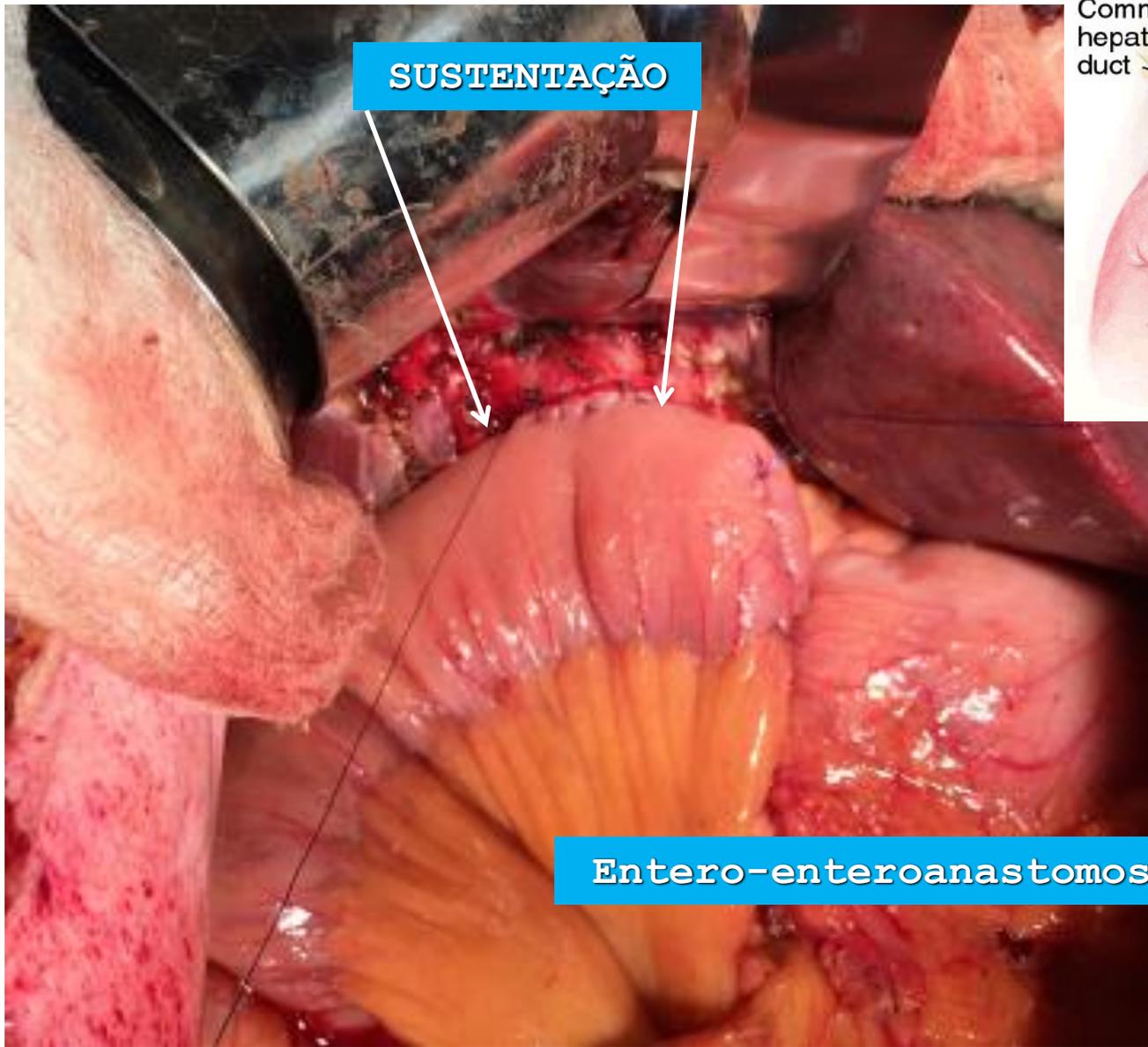


A



B

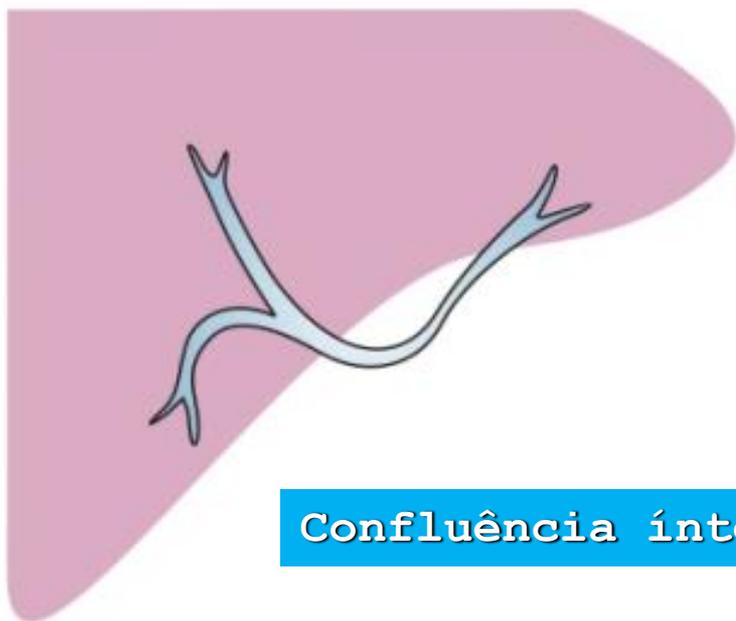
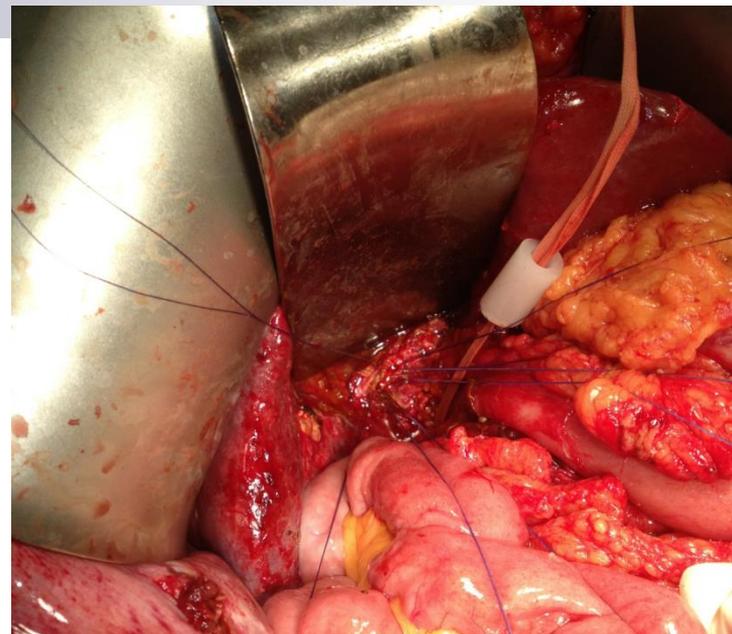




Entero-enteroanastomose a 50-60cm



# LESÕES E3



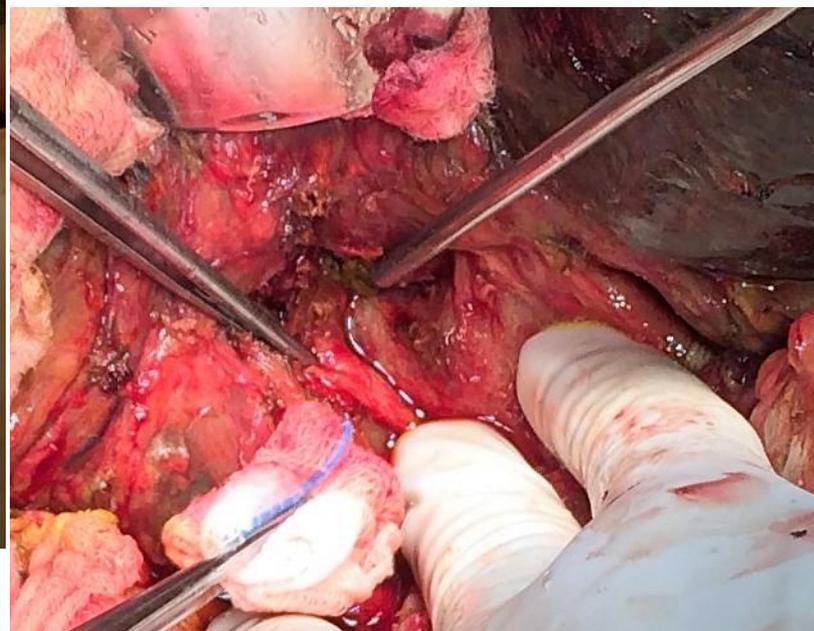
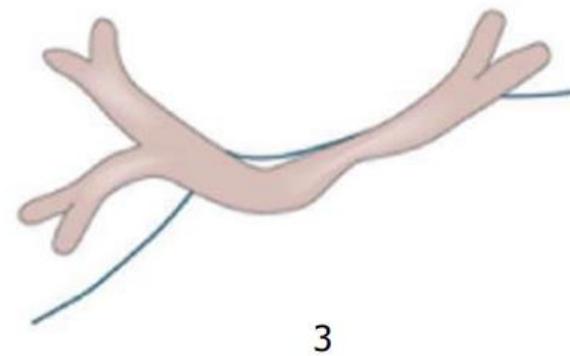
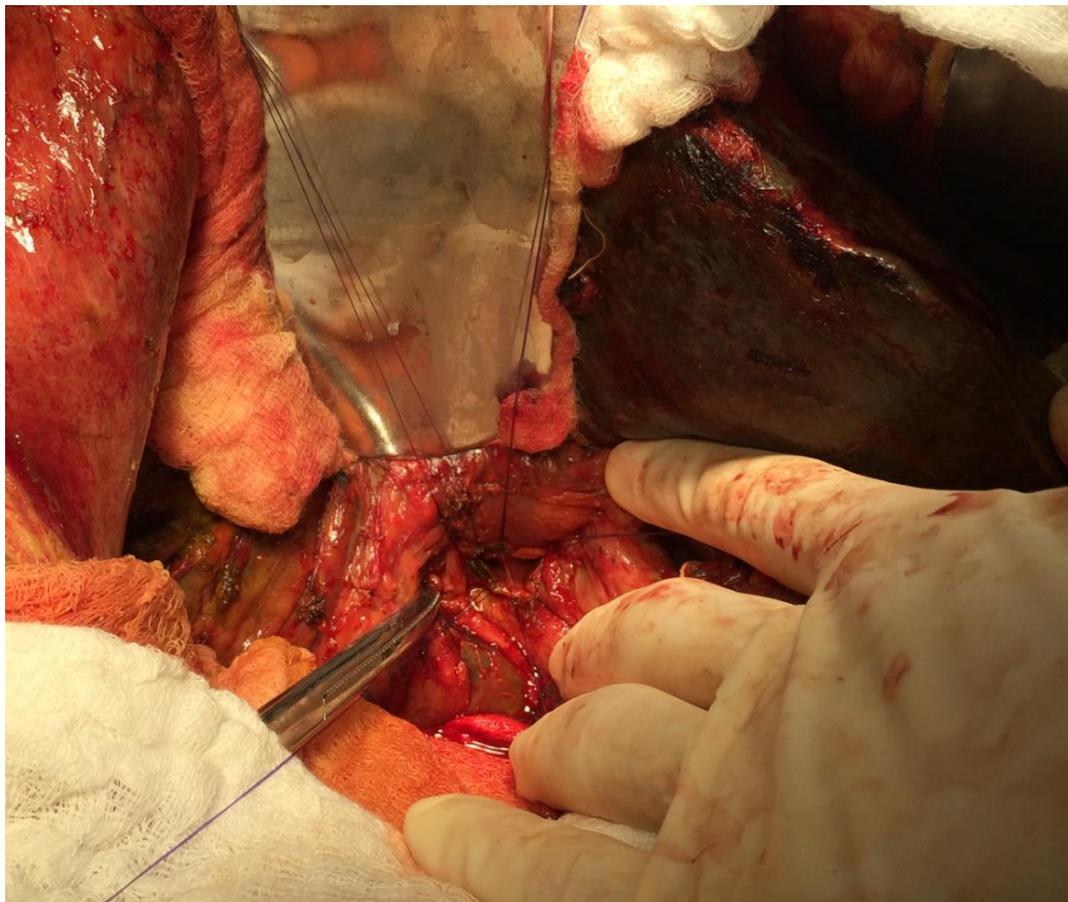
Confluência íntegra

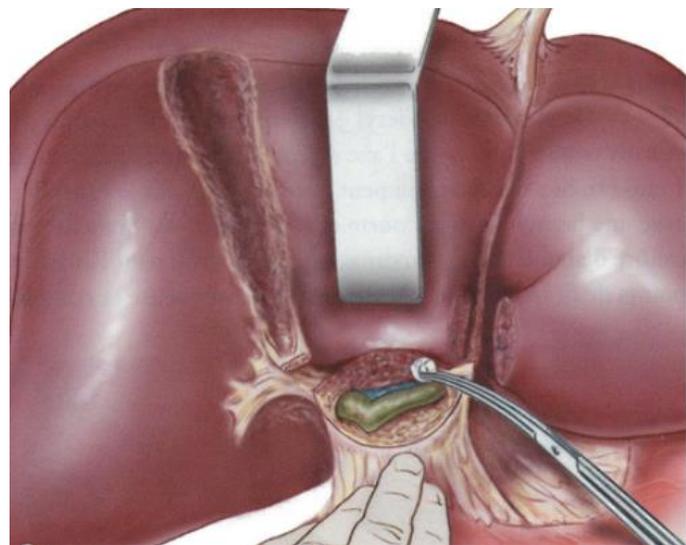
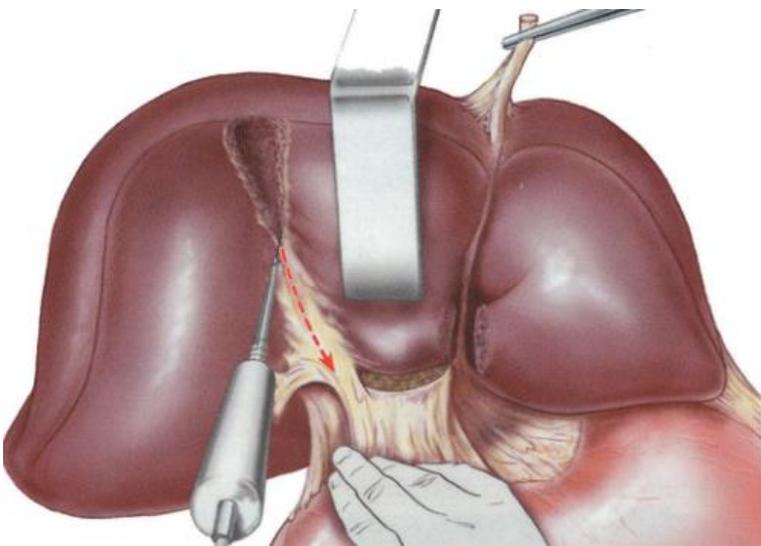
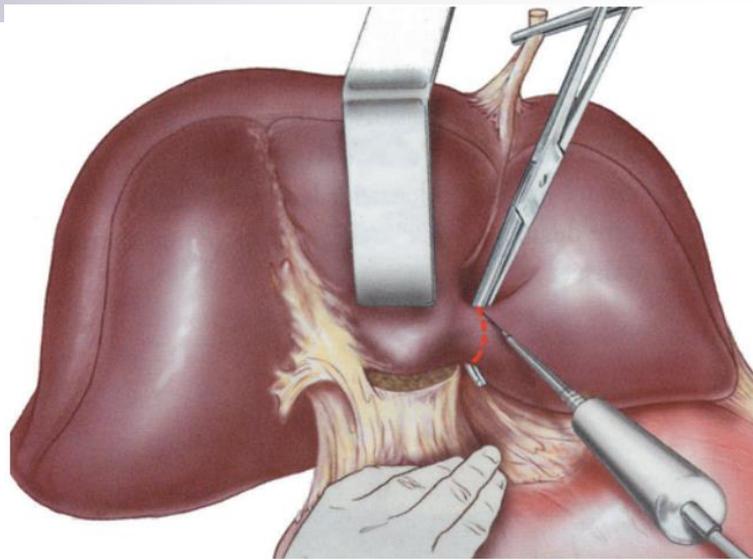
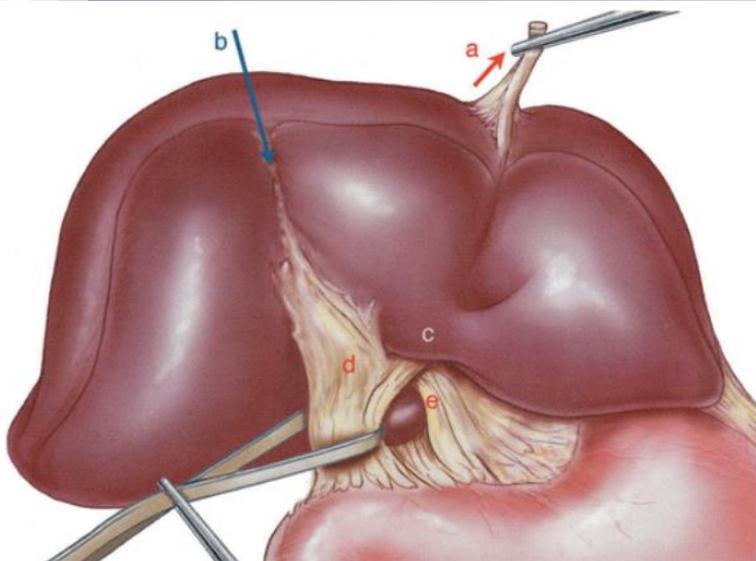
E3

## Hepaticojejunostomia:

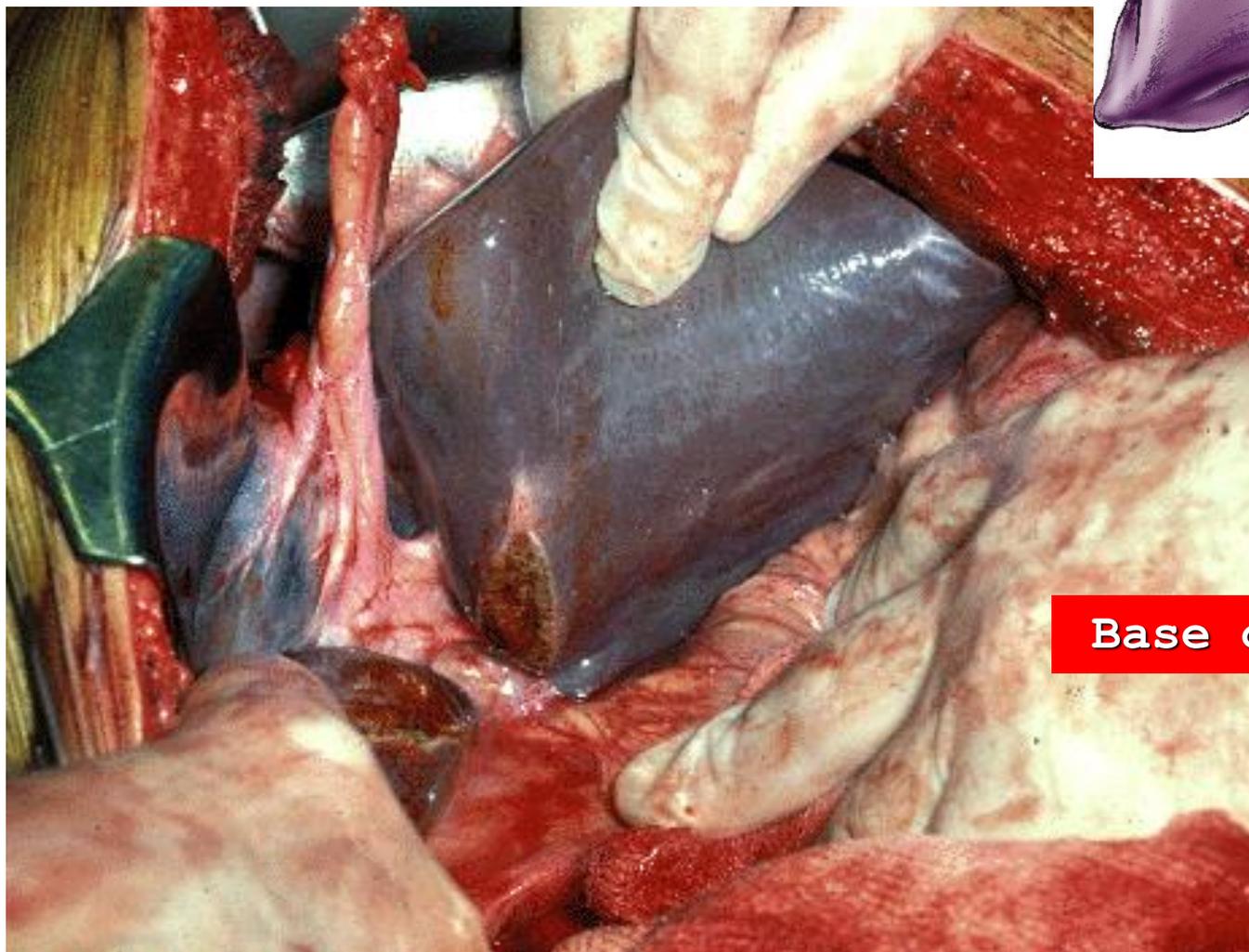
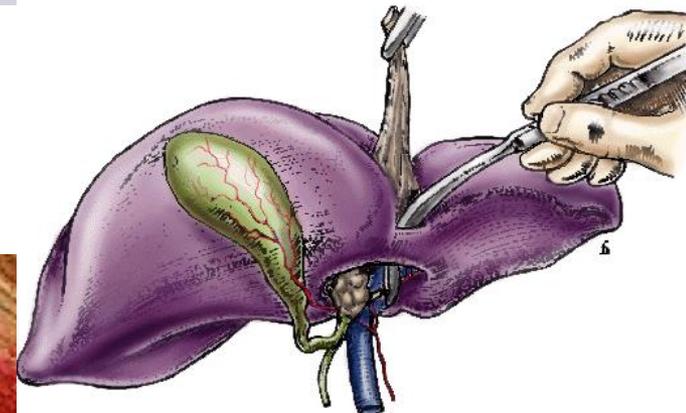
- Y de Roux
- Rebaixamento da placa hilar
- Ducto hepático esquerdo
- Ducto-mucosa
- Pontos separados
- Sustentação

# REBAIXAMENTO DA PLACA HILAR



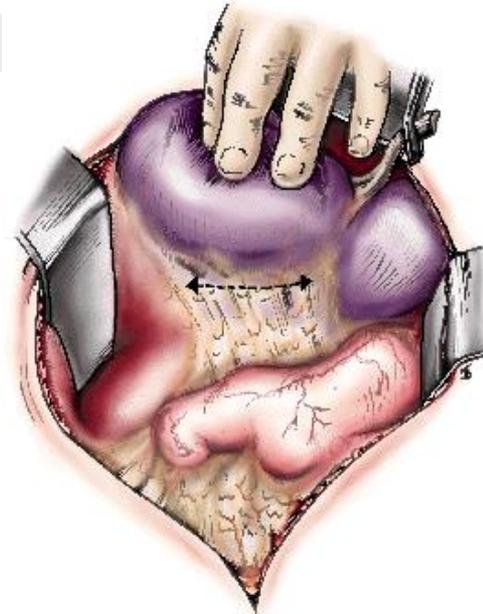
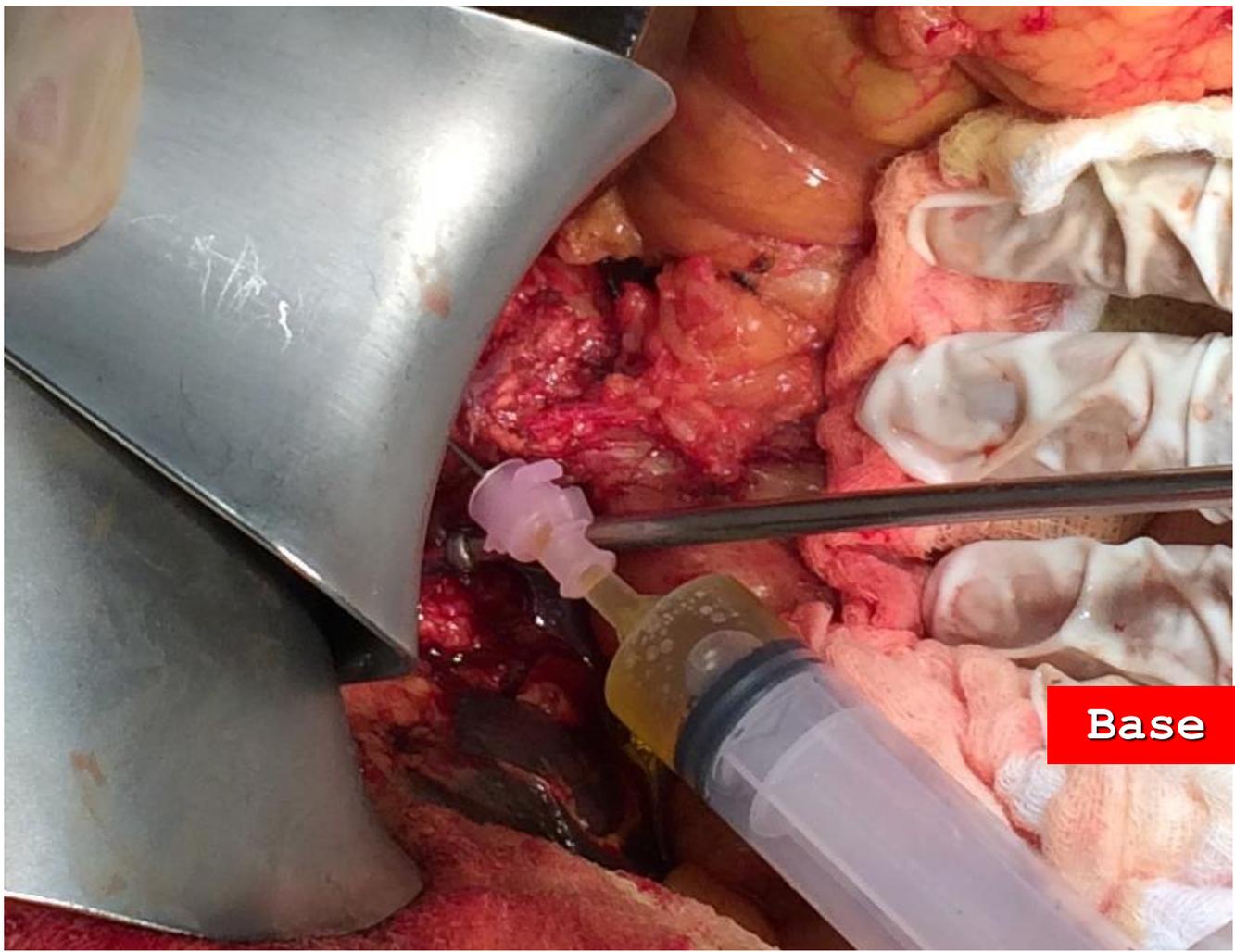


## REBAIXAMENTO DA PLACA HILAR



Base do segmento IV

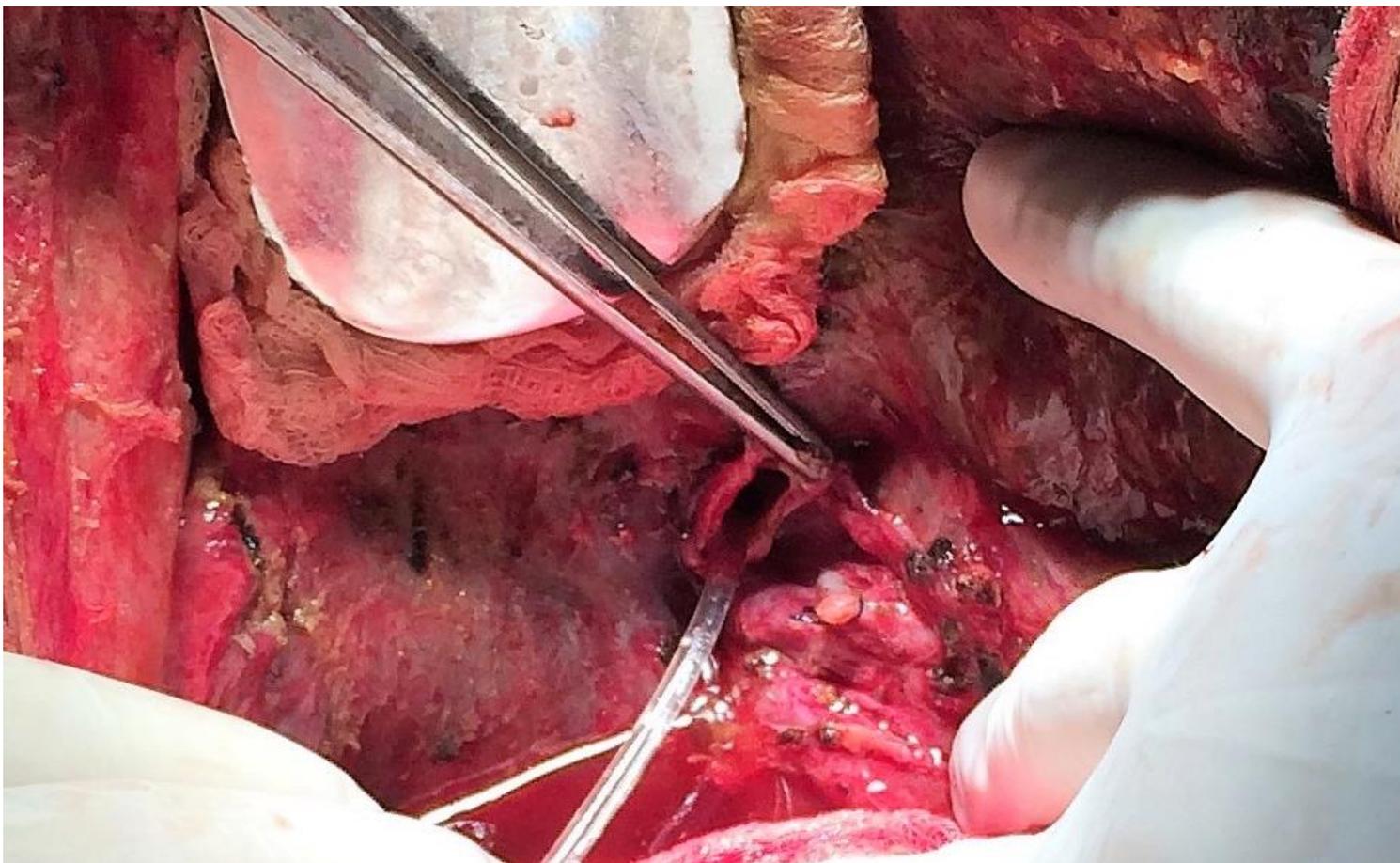
# IDENTIFICAÇÃO DA VIA BILIAR

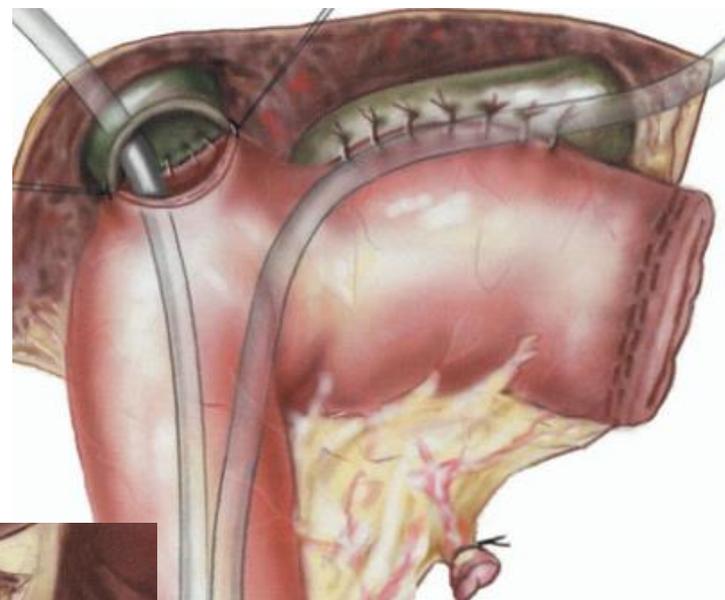
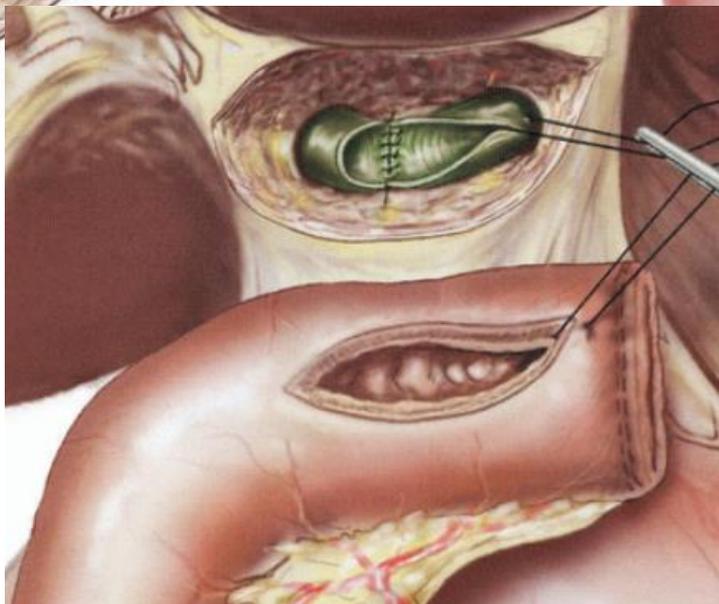
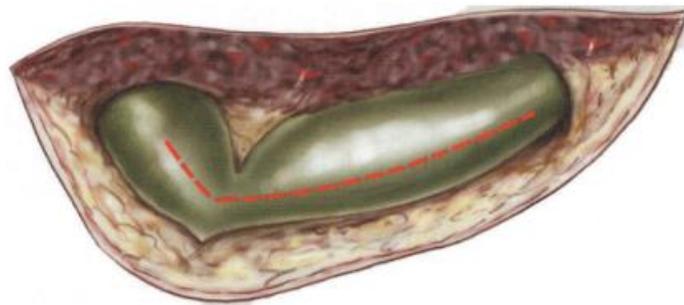


Base do segmento IV



# IDENTIFICAÇÃO DA VIA BILIAR





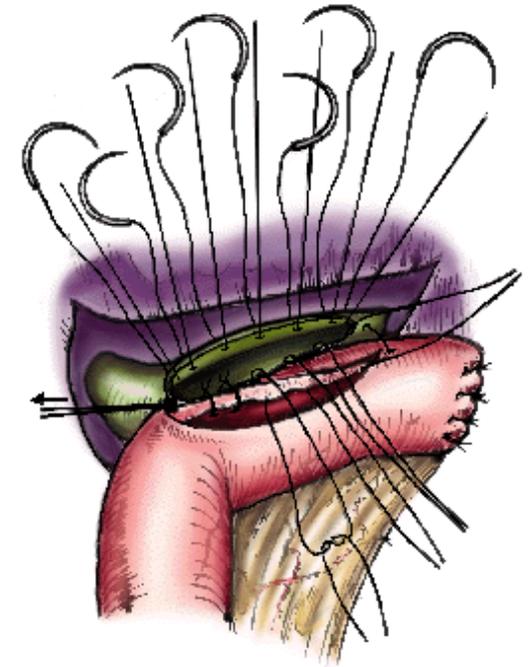
## DUCTO HEPÁTICO ESQUERDO



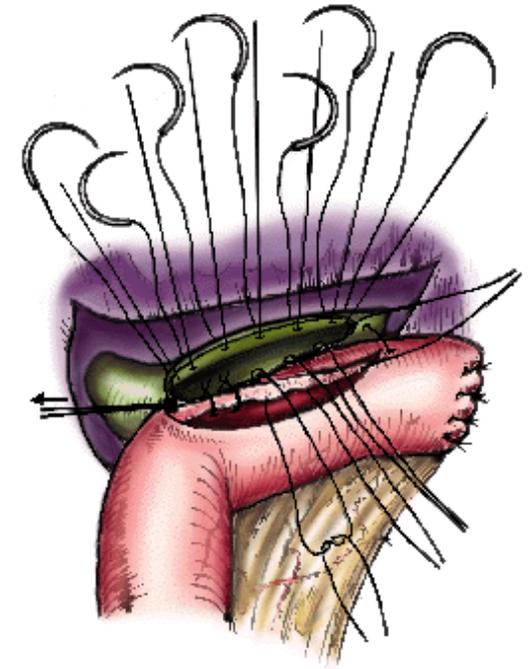
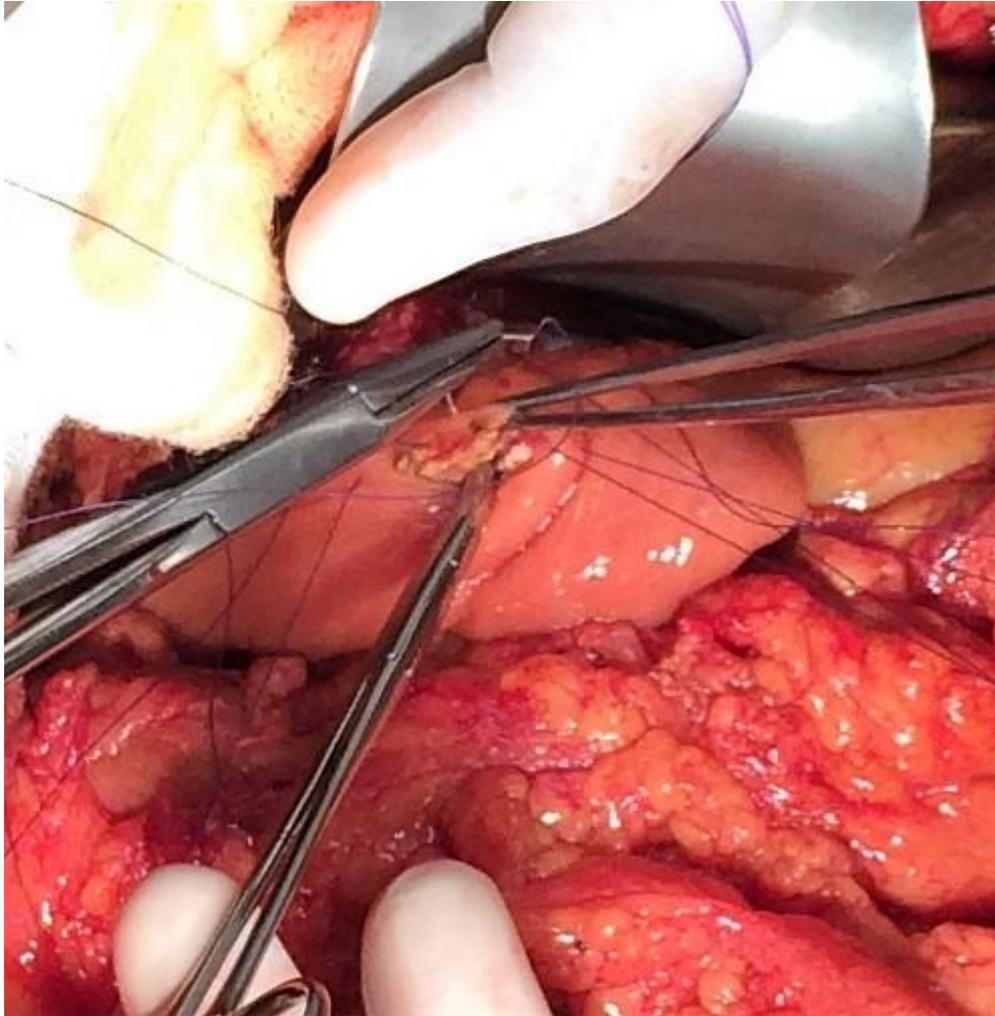
Abertura do ducto



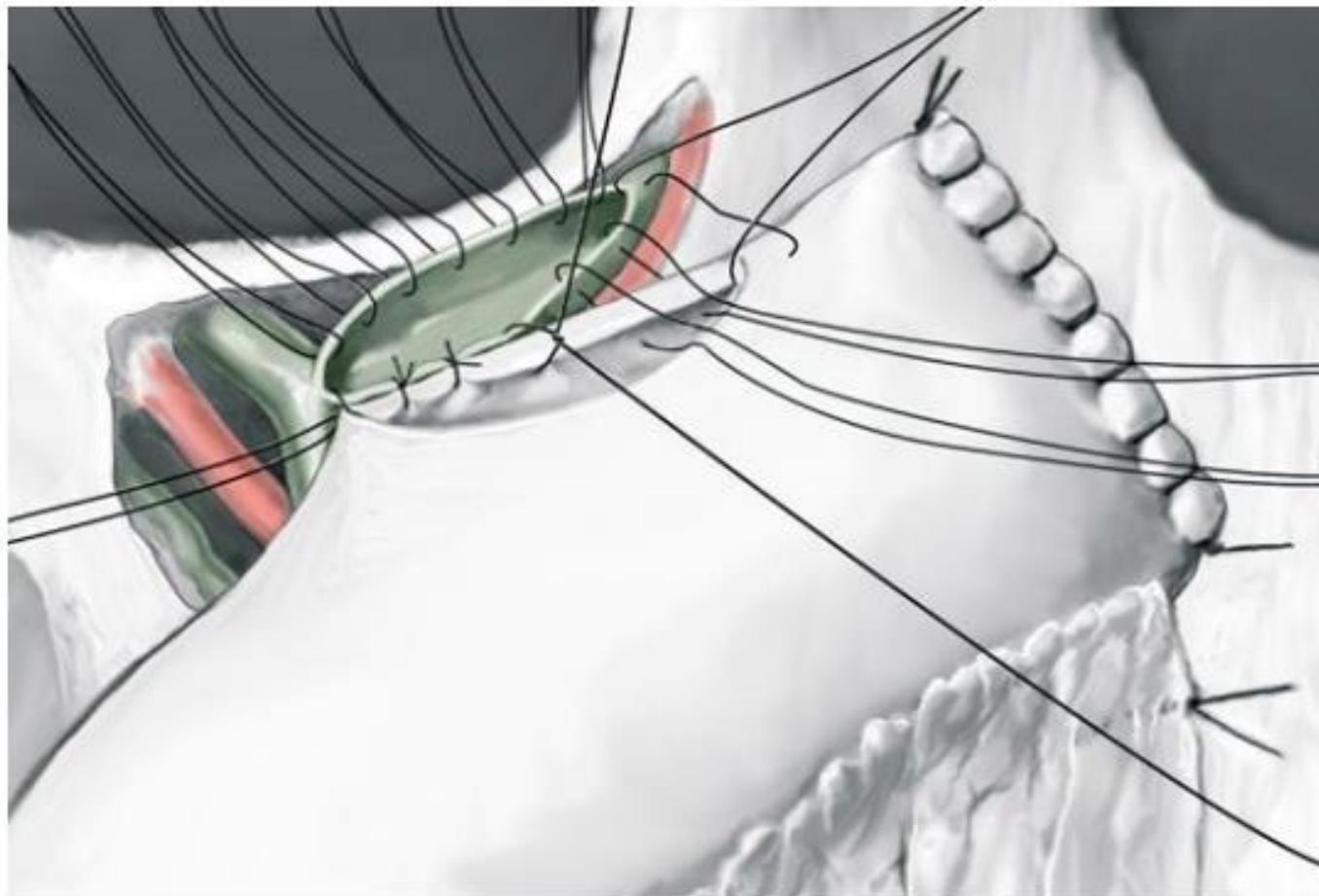
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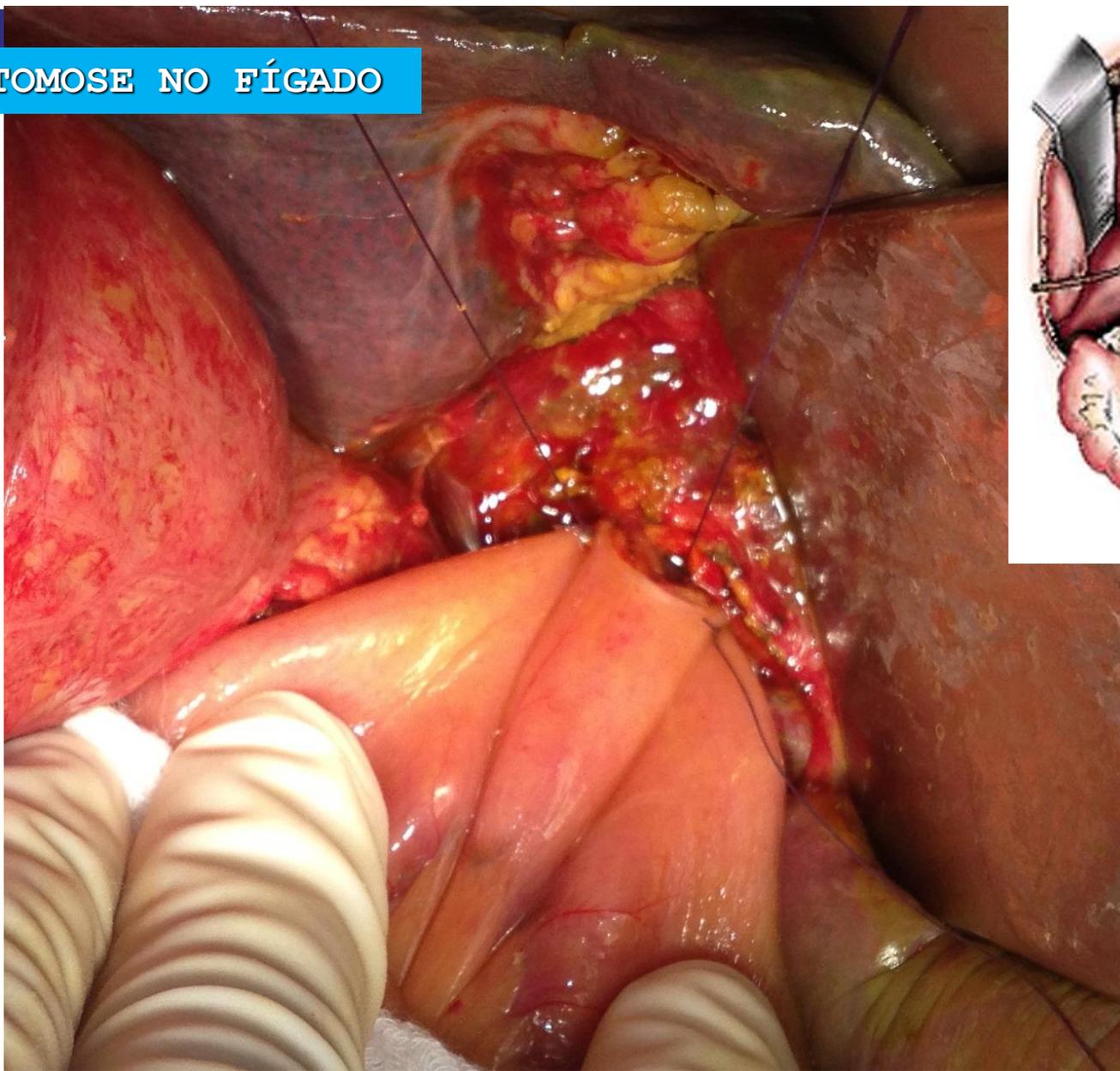
# DUCTO HEPÁTICO ESQUERDO



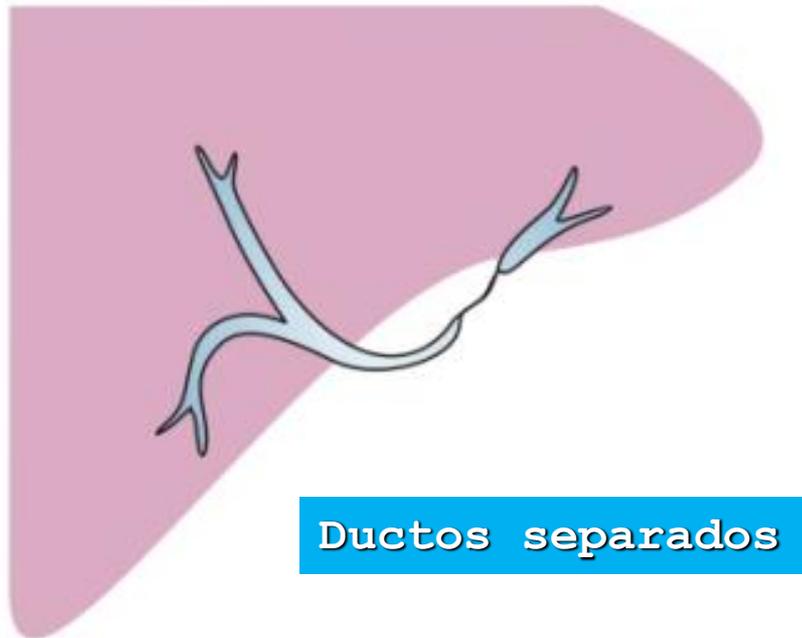
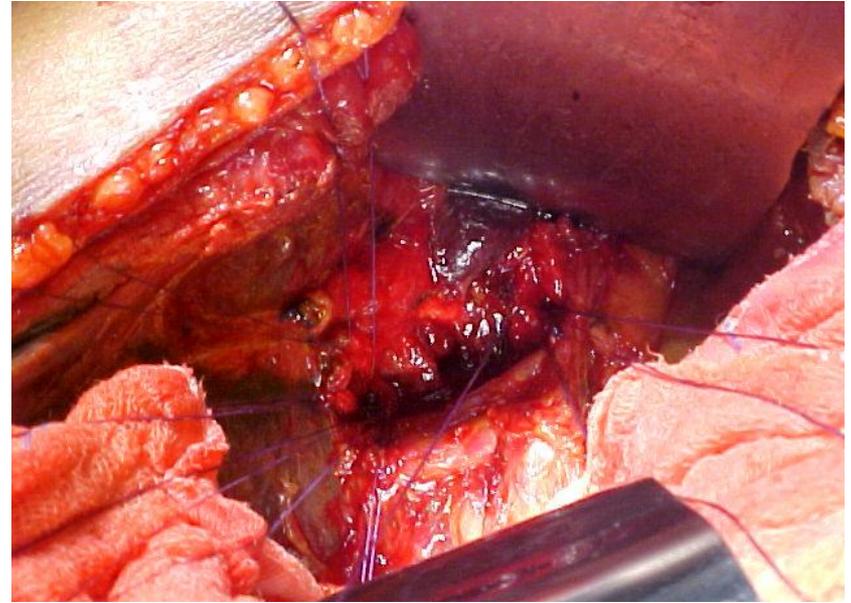
# ANASTOMOSE COM O DUCTO ESQUERDO



# ANASTOMOSE NO FÍGADO



# LESÕES E4



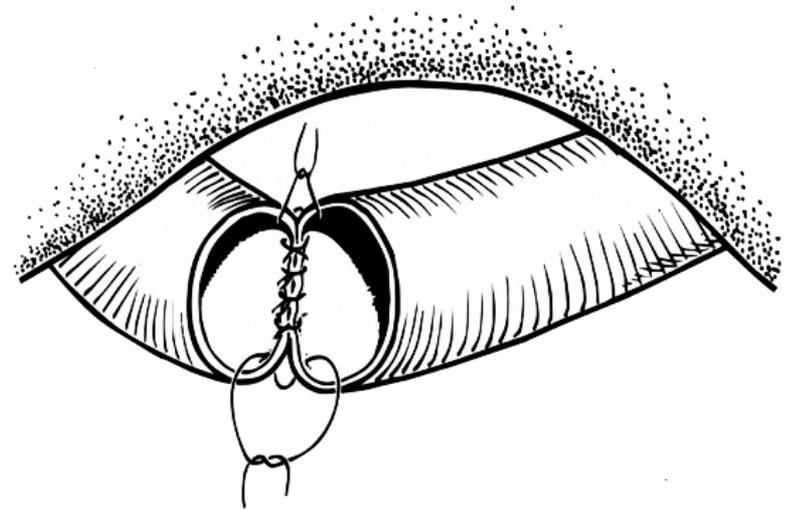
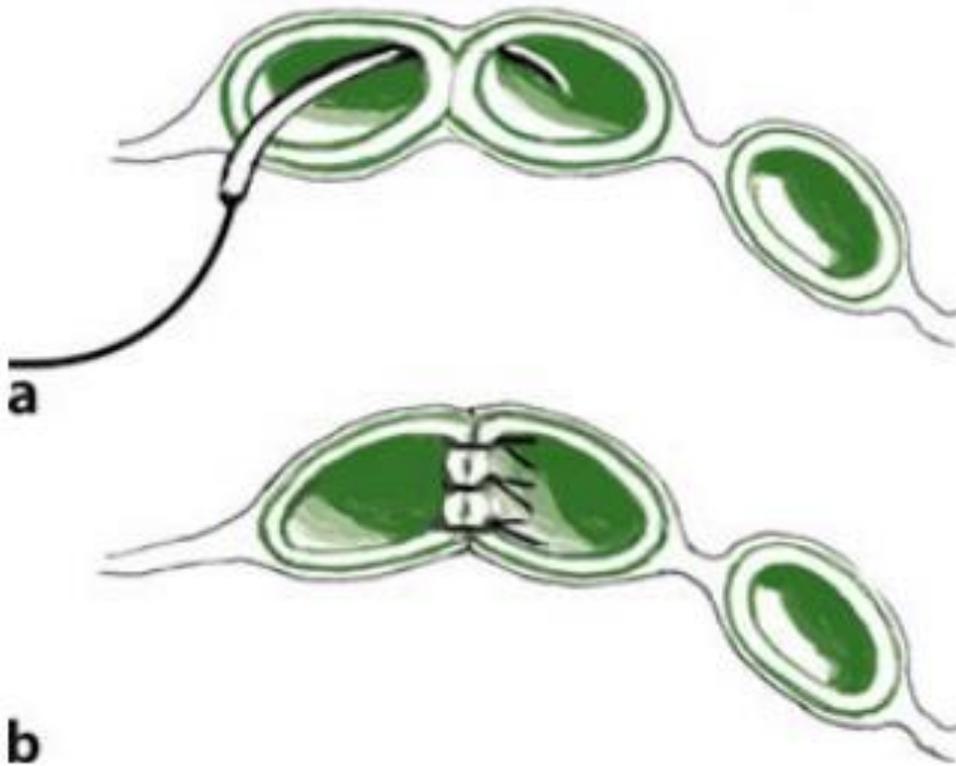
Ductos separados

Hepaticojejunostomia:

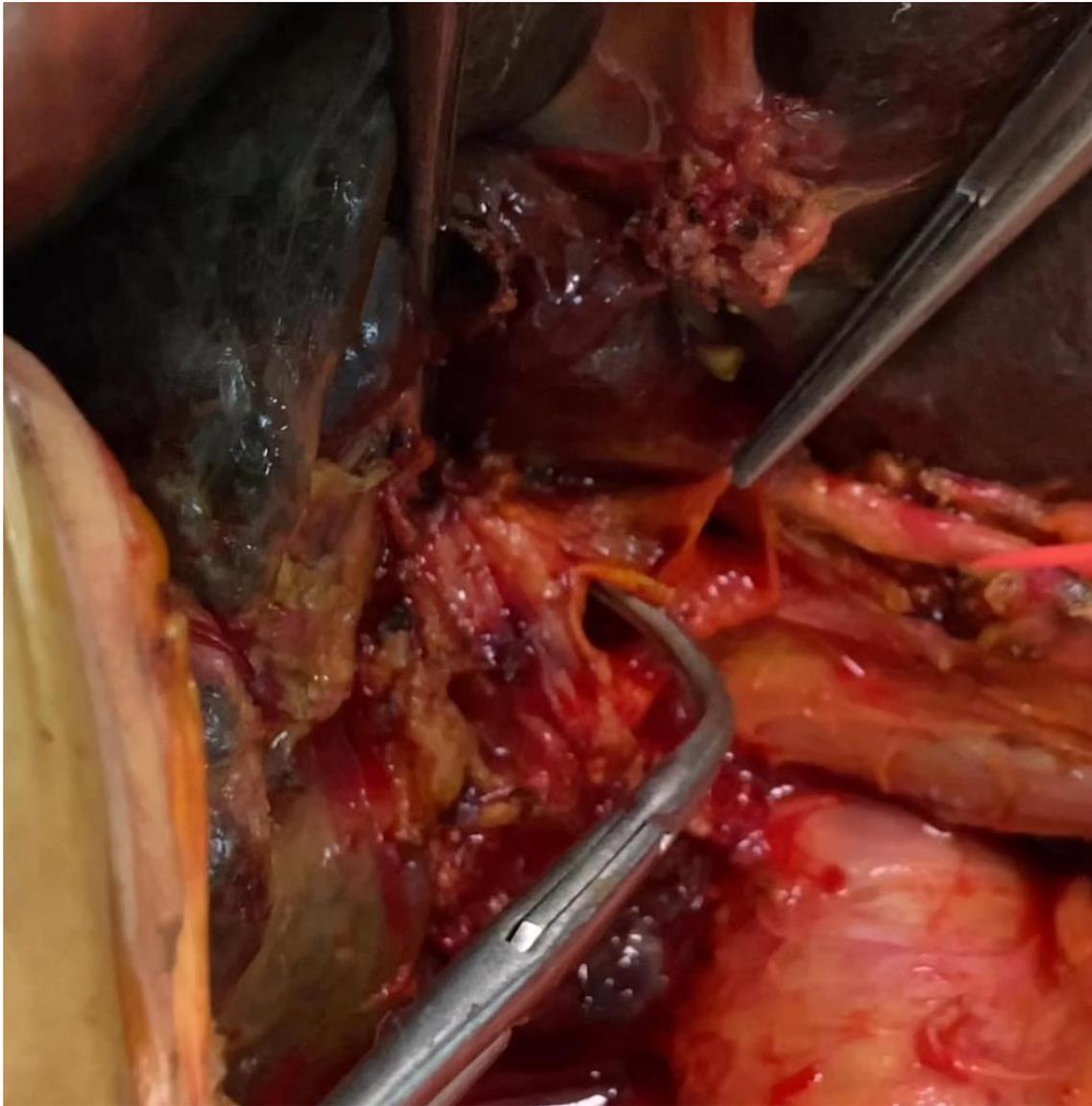
- Ductos próximos
- Ductos afastados

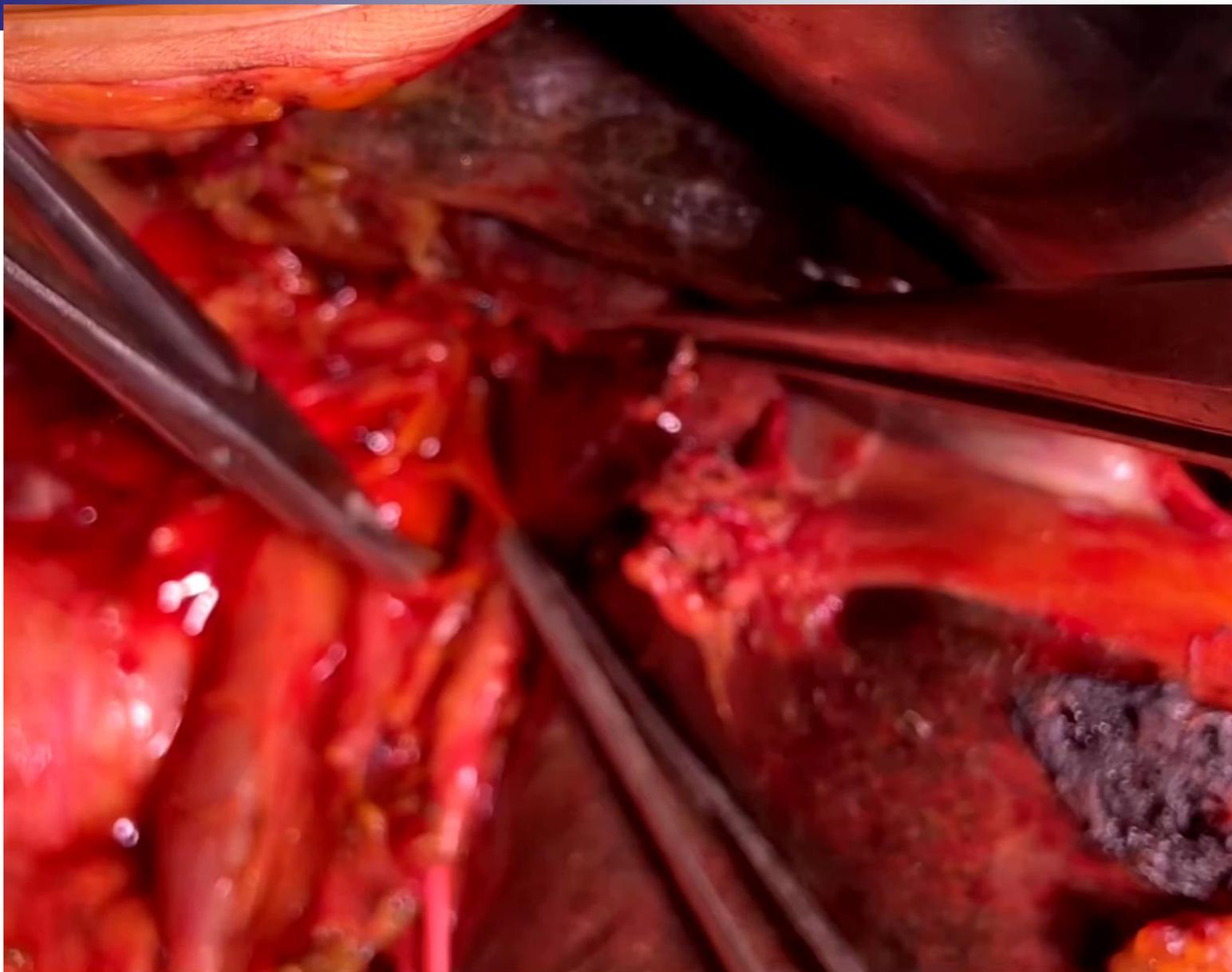
E4

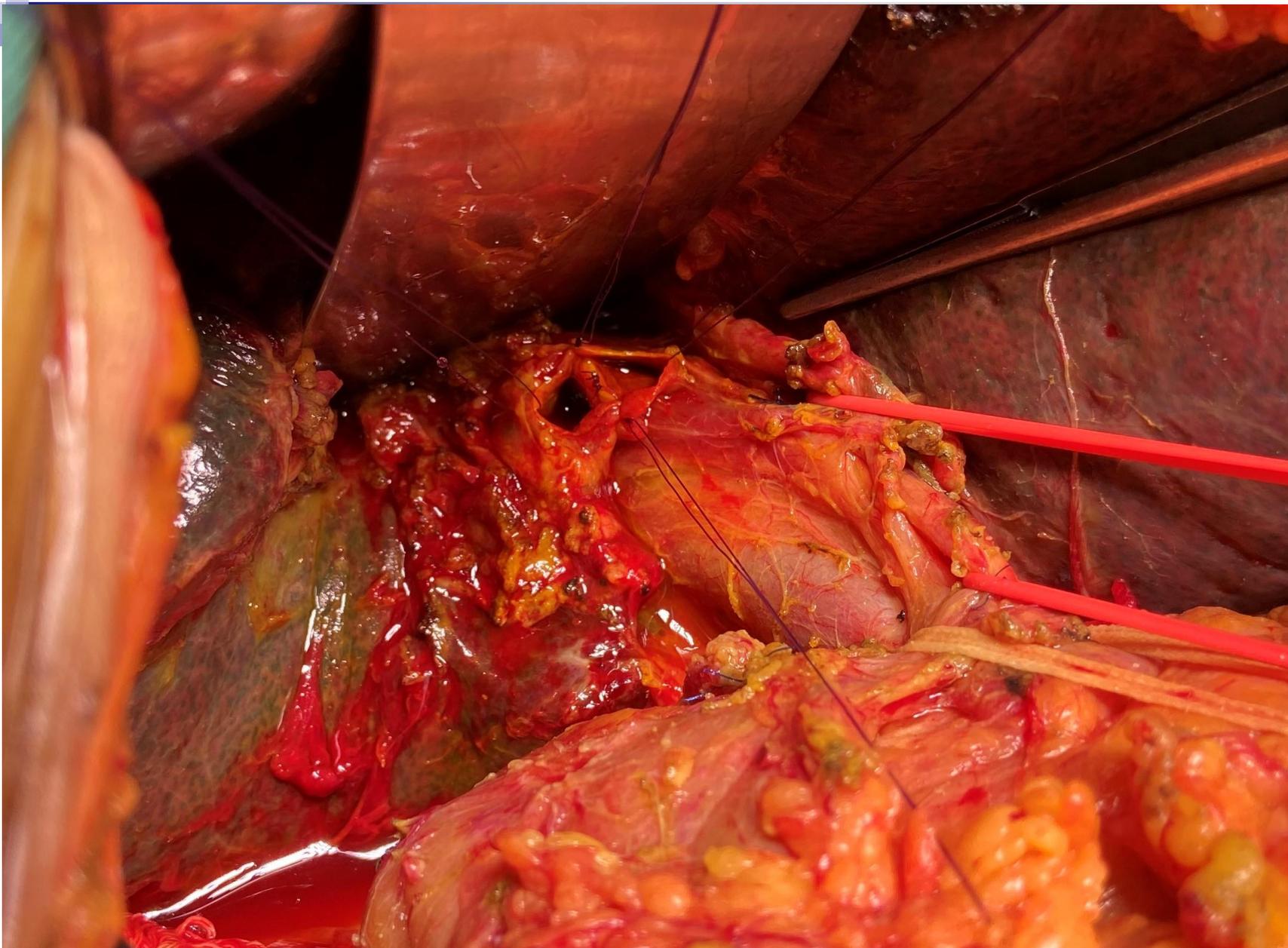
# DUCTOS PRÓXIMOS

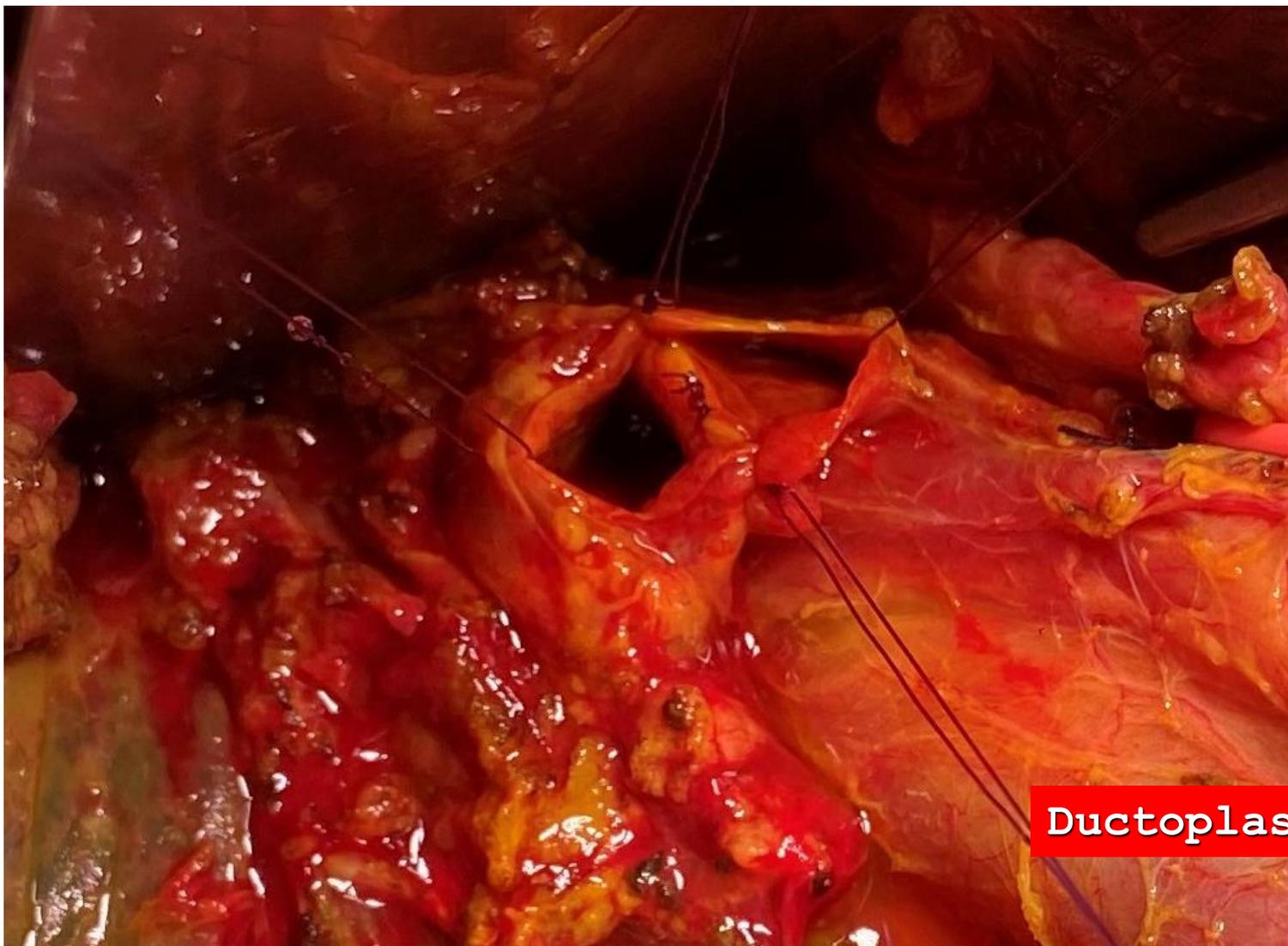


Ductoplastia



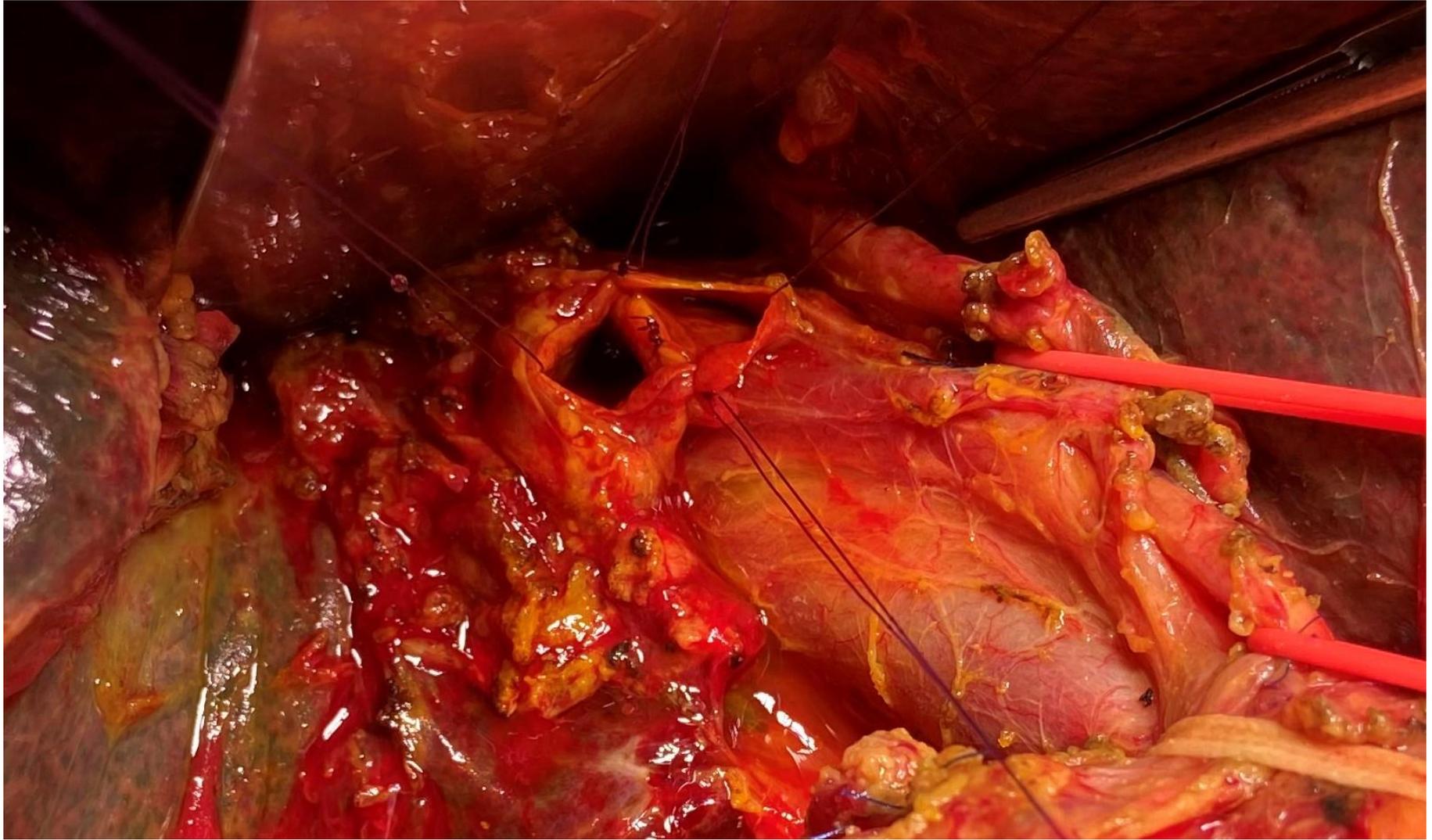




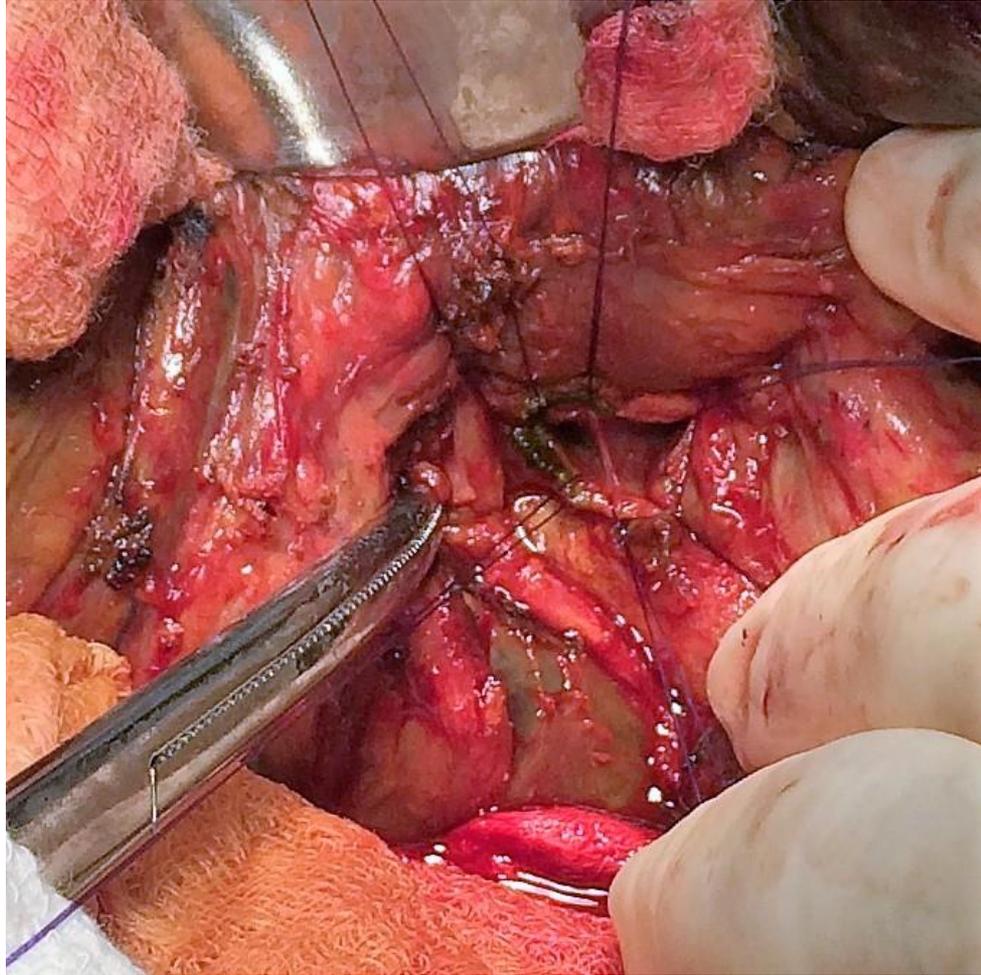
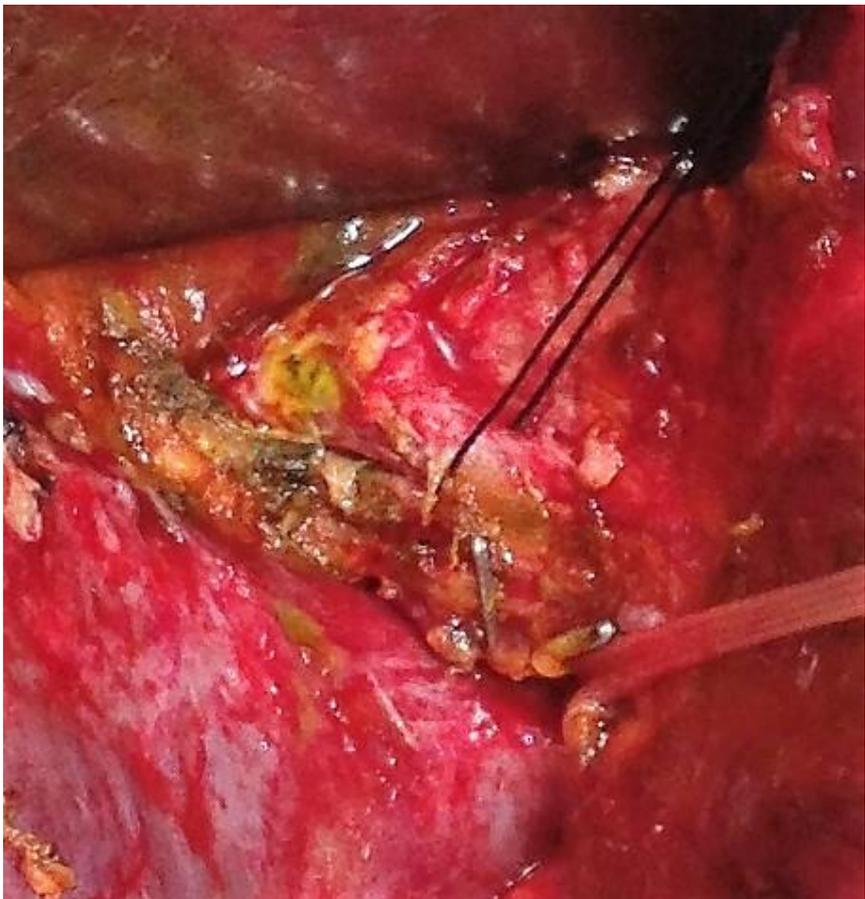


Ductoplastia

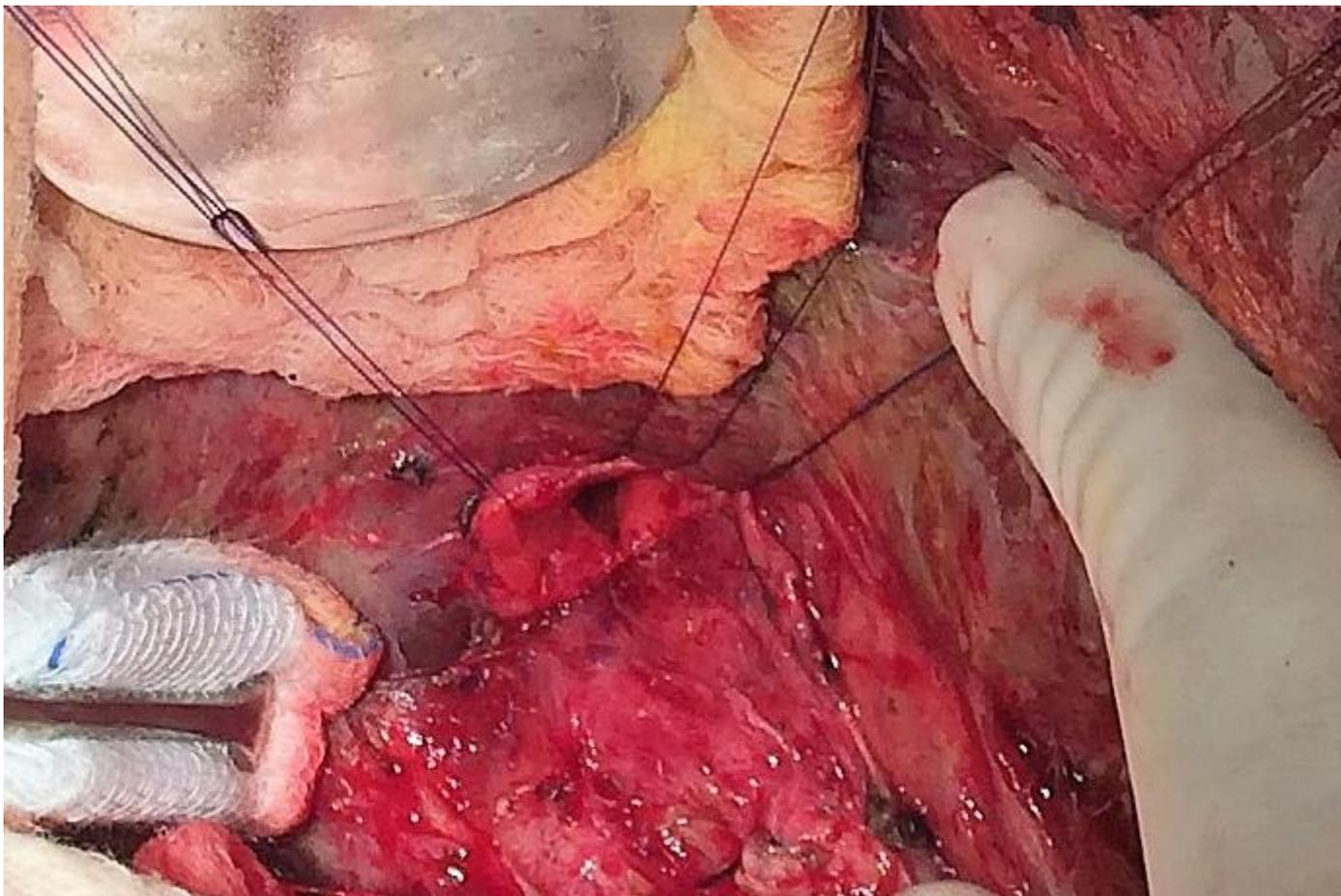




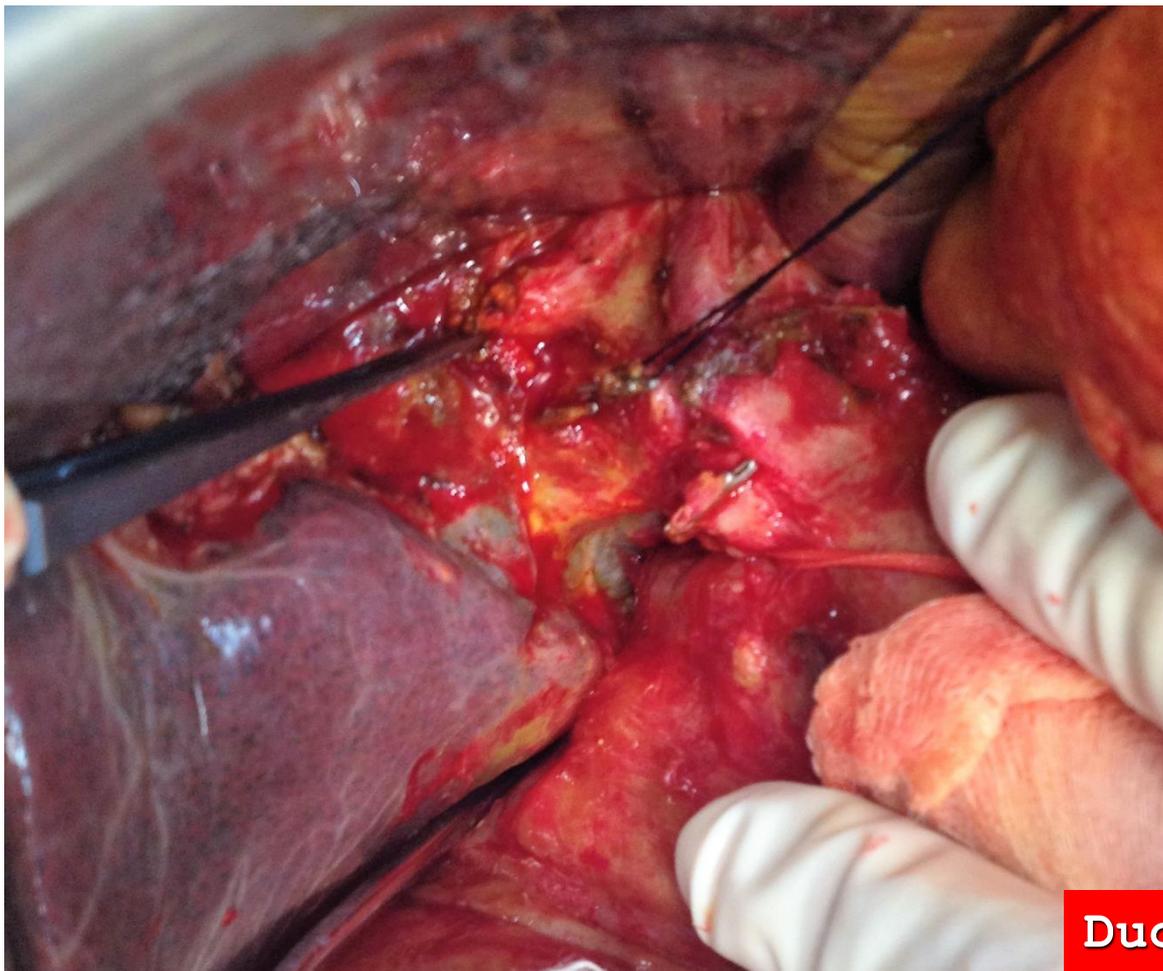
# IDENTIFICAÇÃO DA VIA BILIAR



# IDENTIFICAÇÃO DA VIA BILIAR



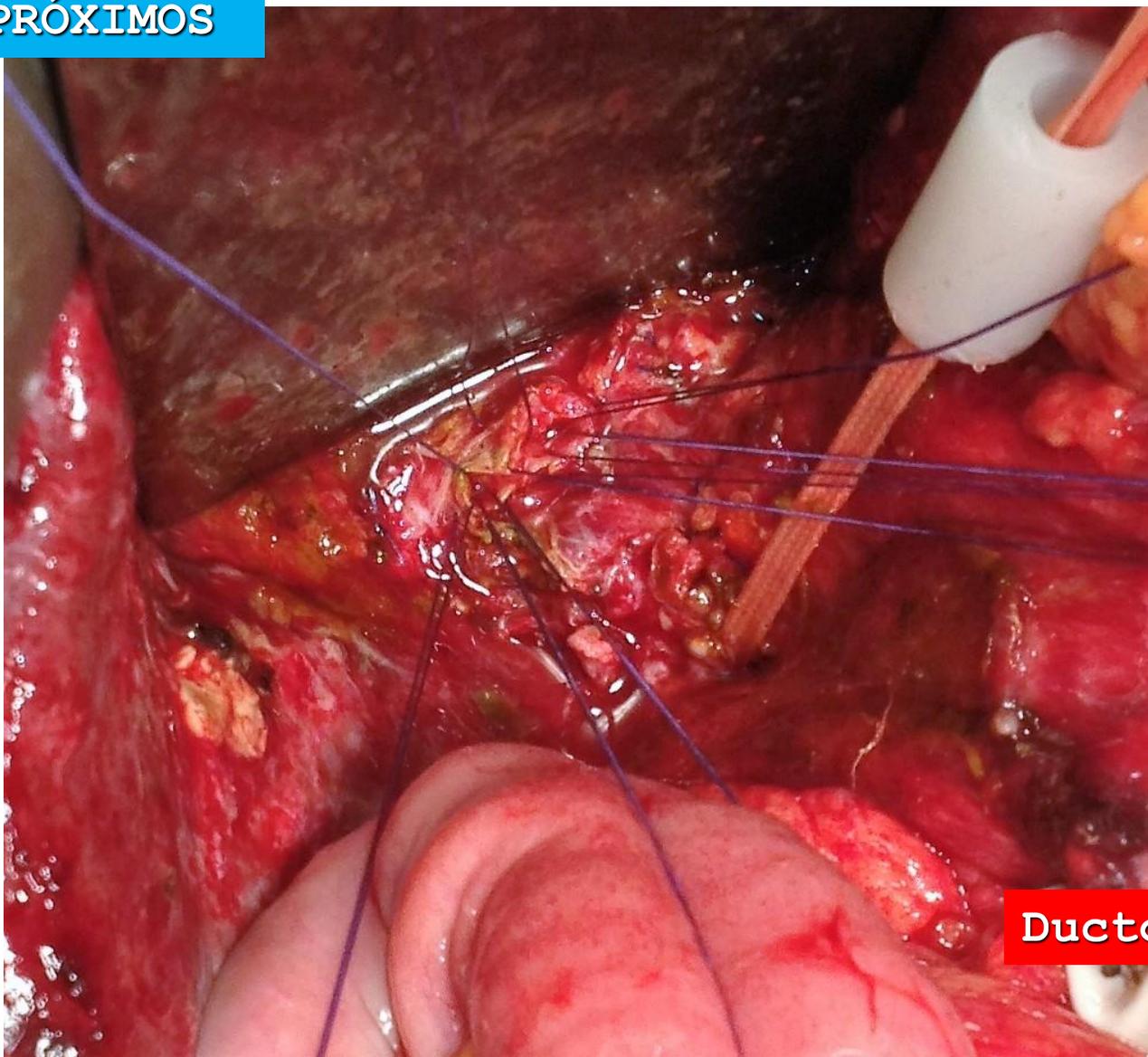
## DUCTOS PRÓXIMOS



Ductoplastia

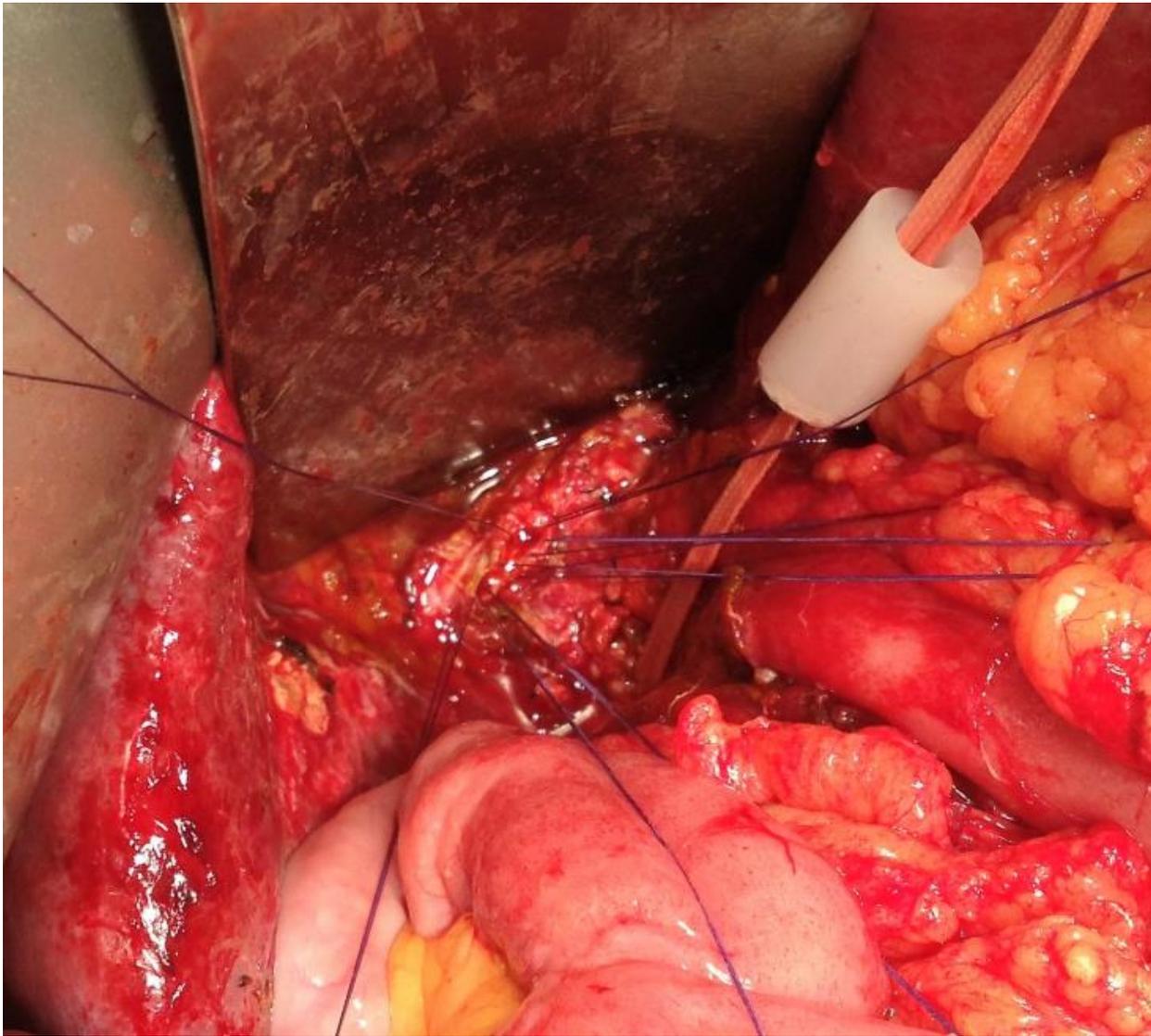


## DUCTOS PRÓXIMOS

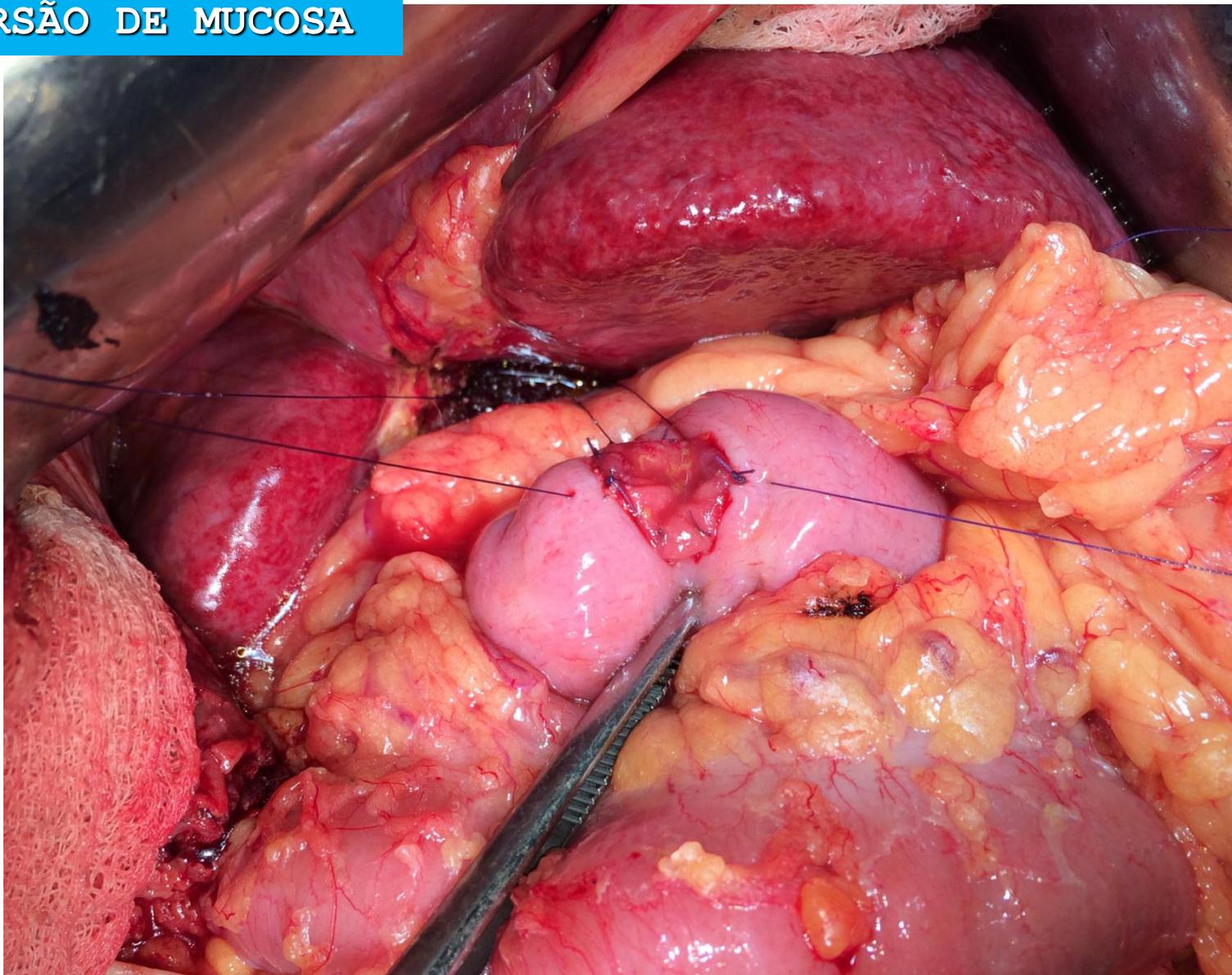


Ductoplastia

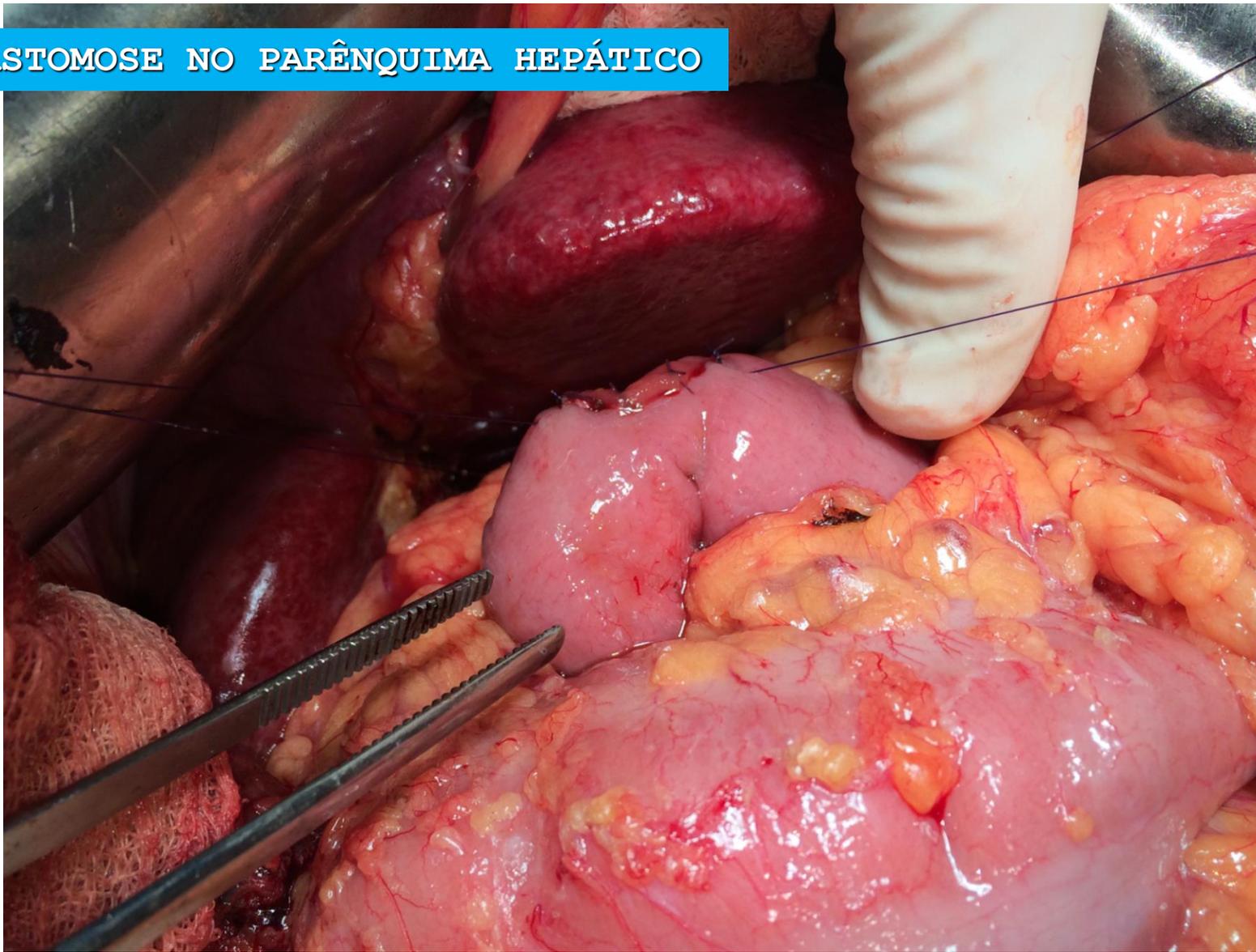




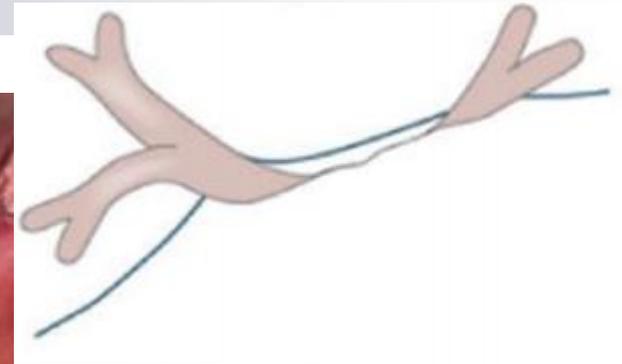
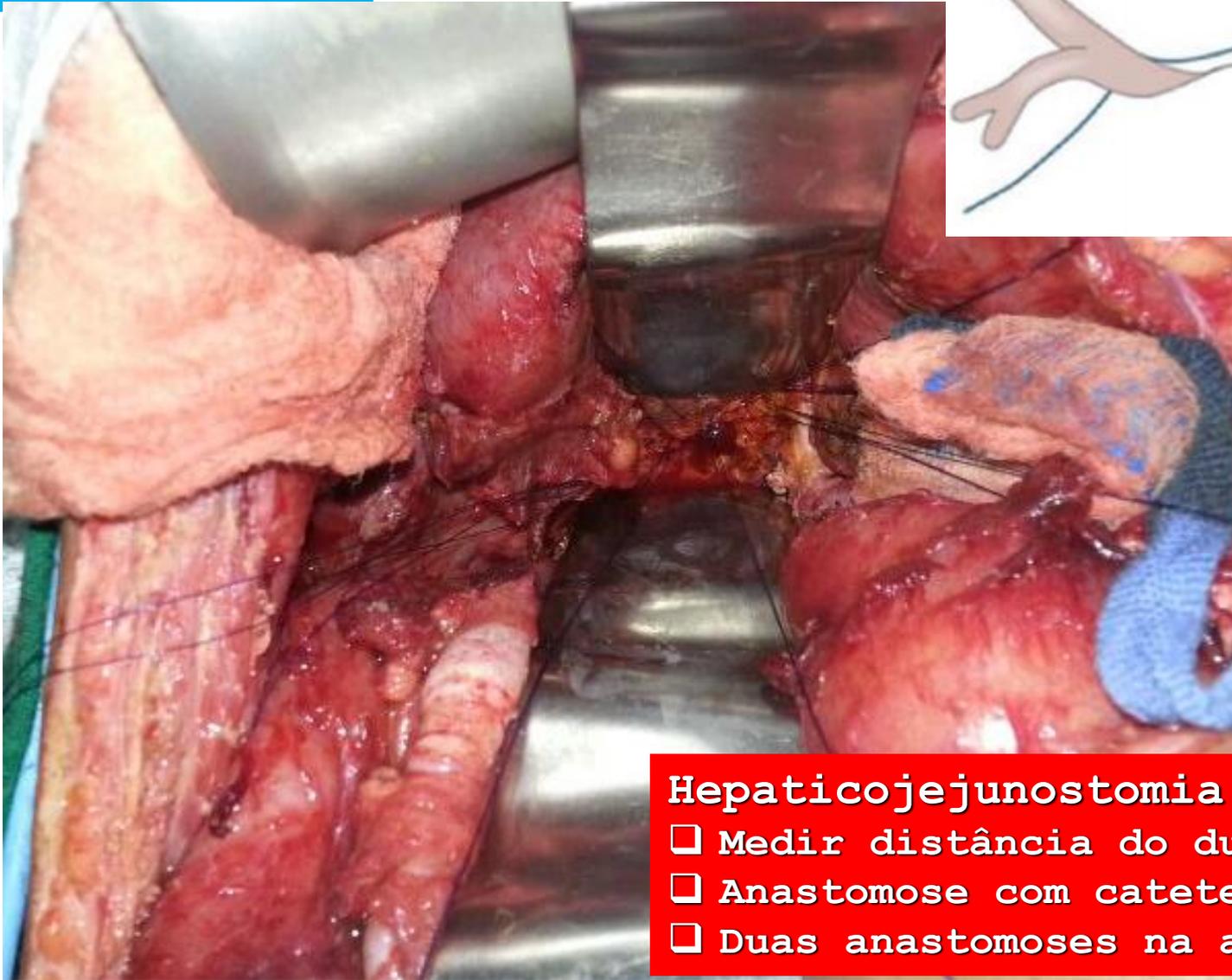
# EVERSÃO DE MUCOSA



## ANASTOMOSE NO PARÊNQUIMA HEPÁTICO



## DUCTOS AFASTADOS

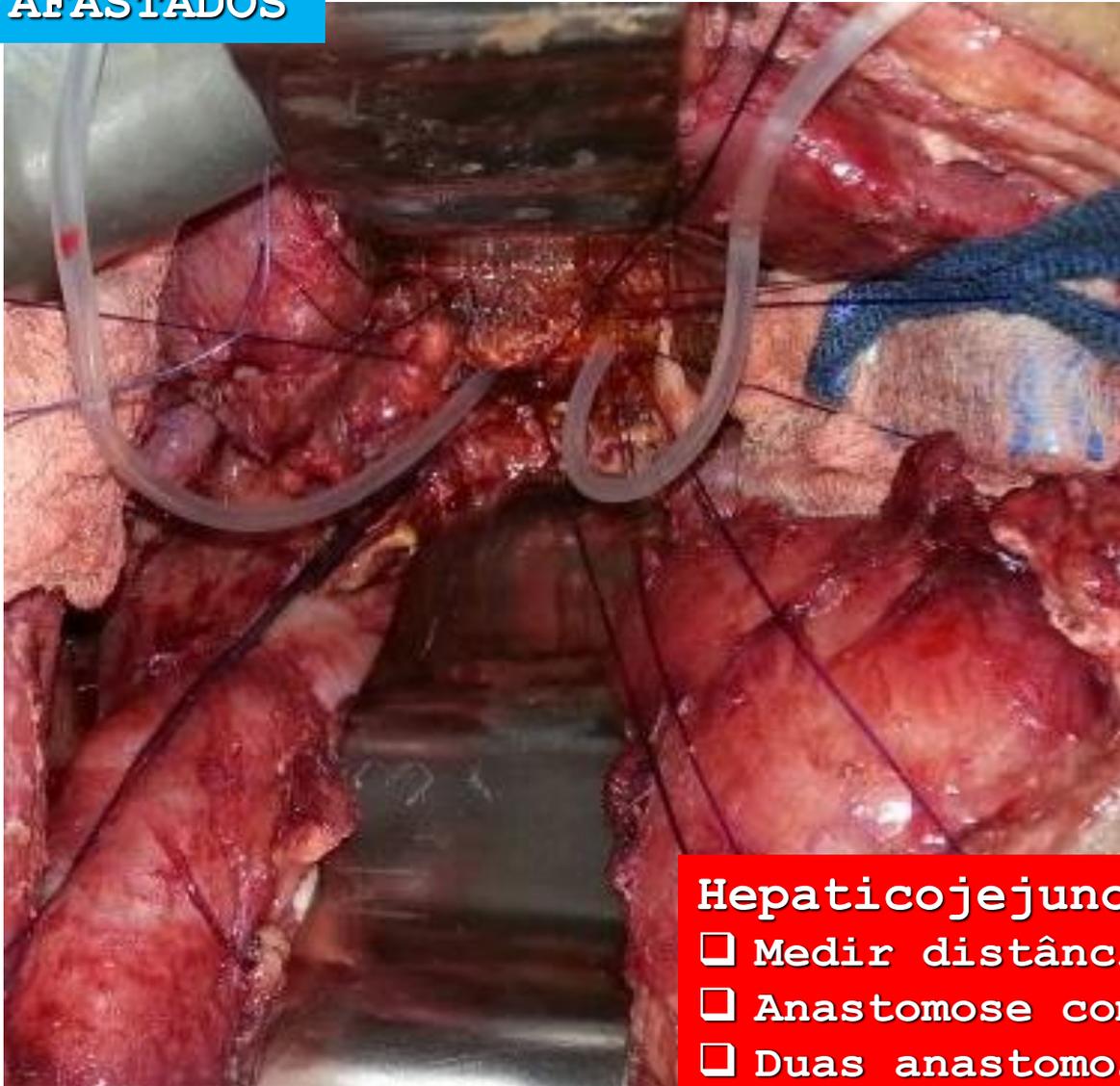


### Hepaticojejunostomia:

- Medir distância do ducto
- Anastomose com cateter
- Duas anastomoses na alça



## DUCTOS AFASTADOS

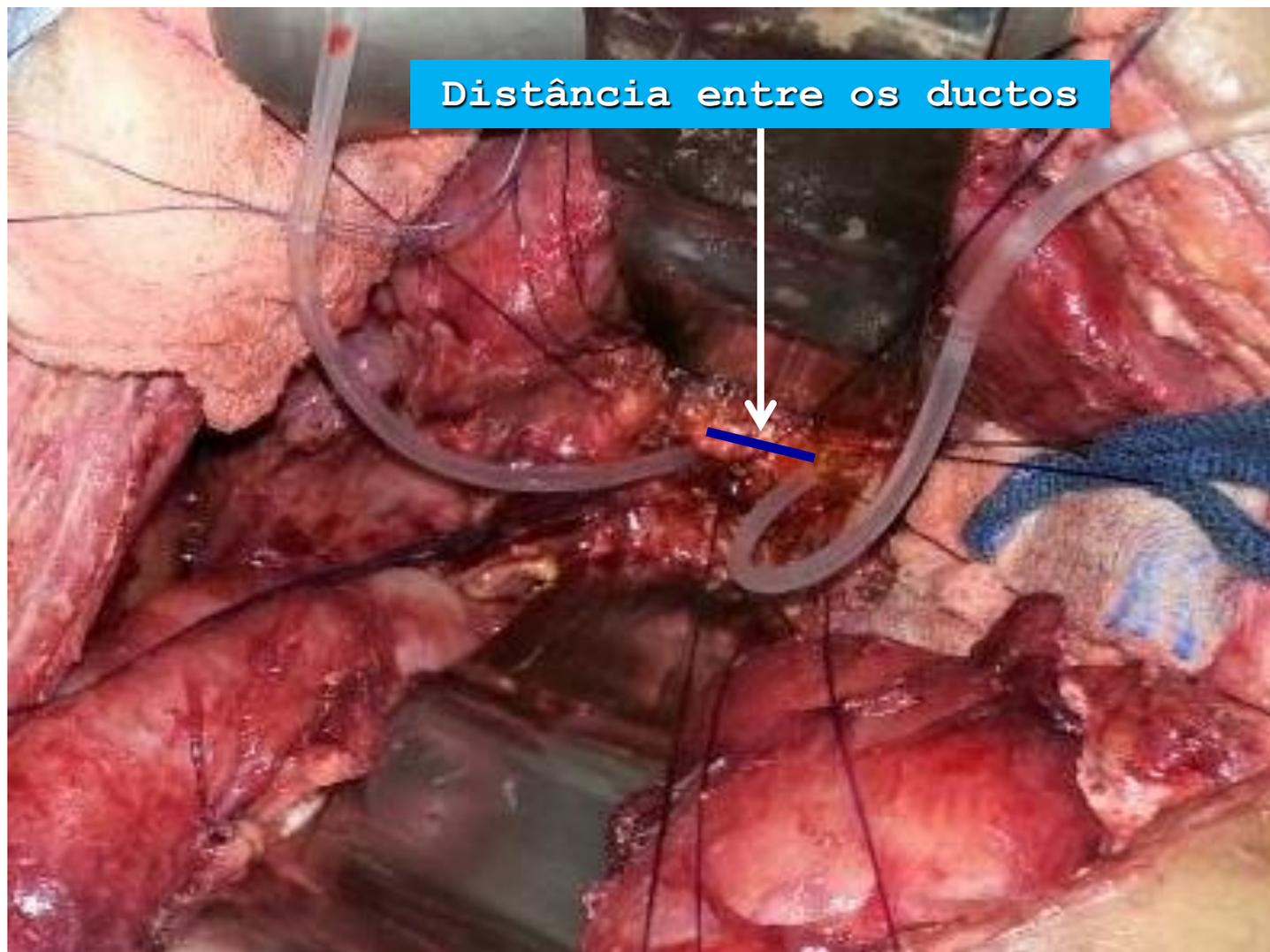


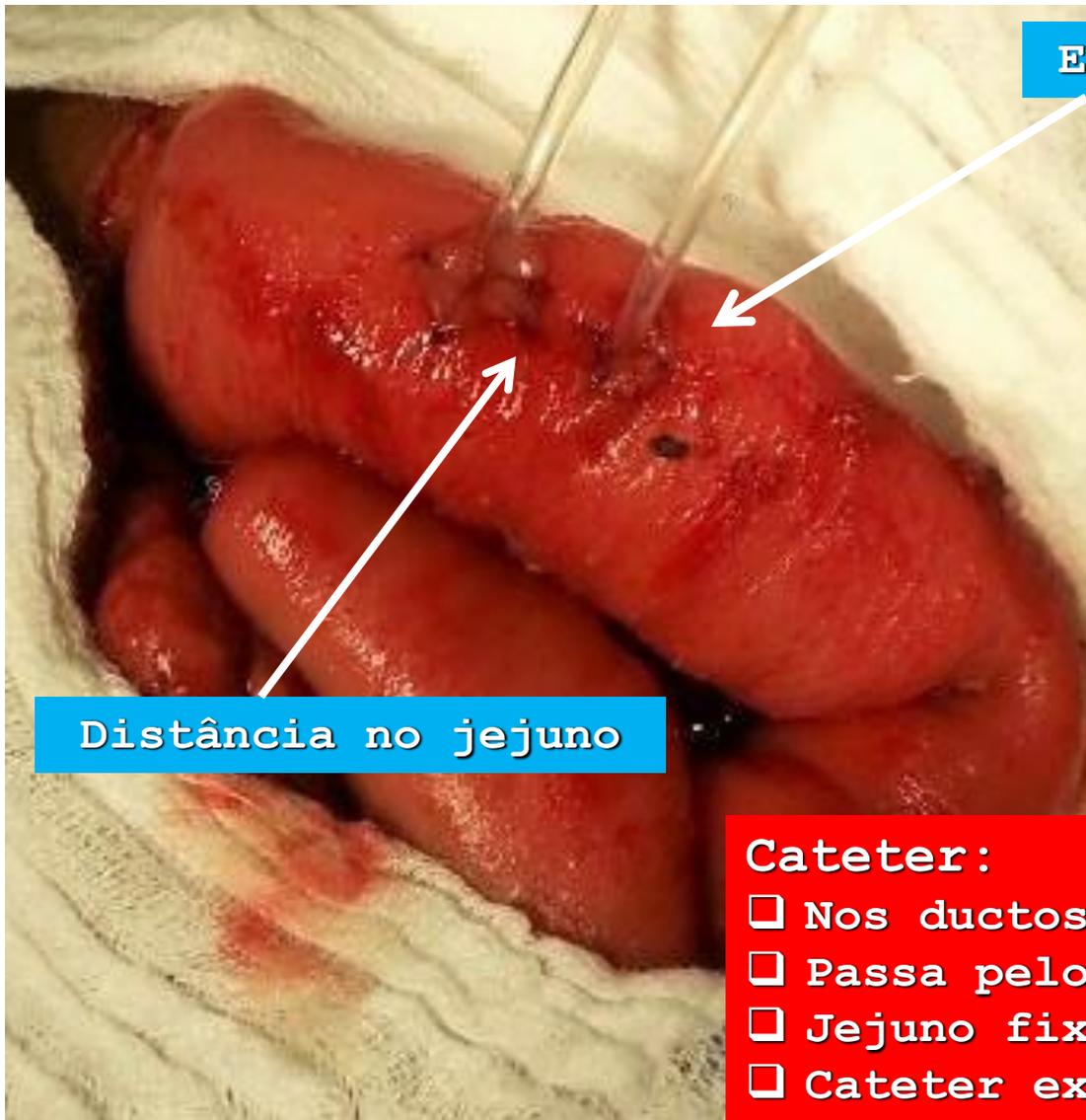
### Hepaticojejunostomia:

- Medir distância do ducto
- Anastomose com cateter
- Duas anastomoses na alça



## DUCTOS AFASTADOS





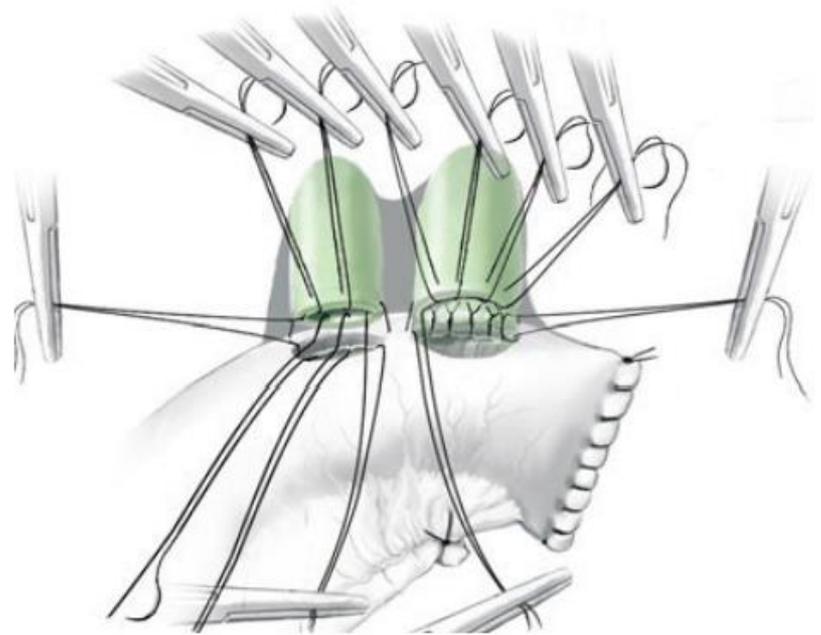
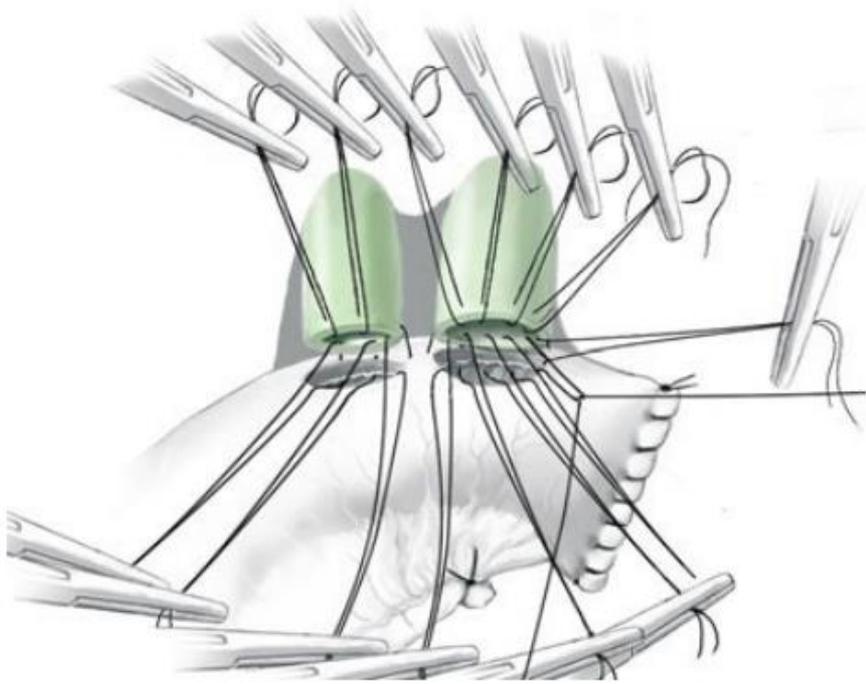
Eversão de mucosa

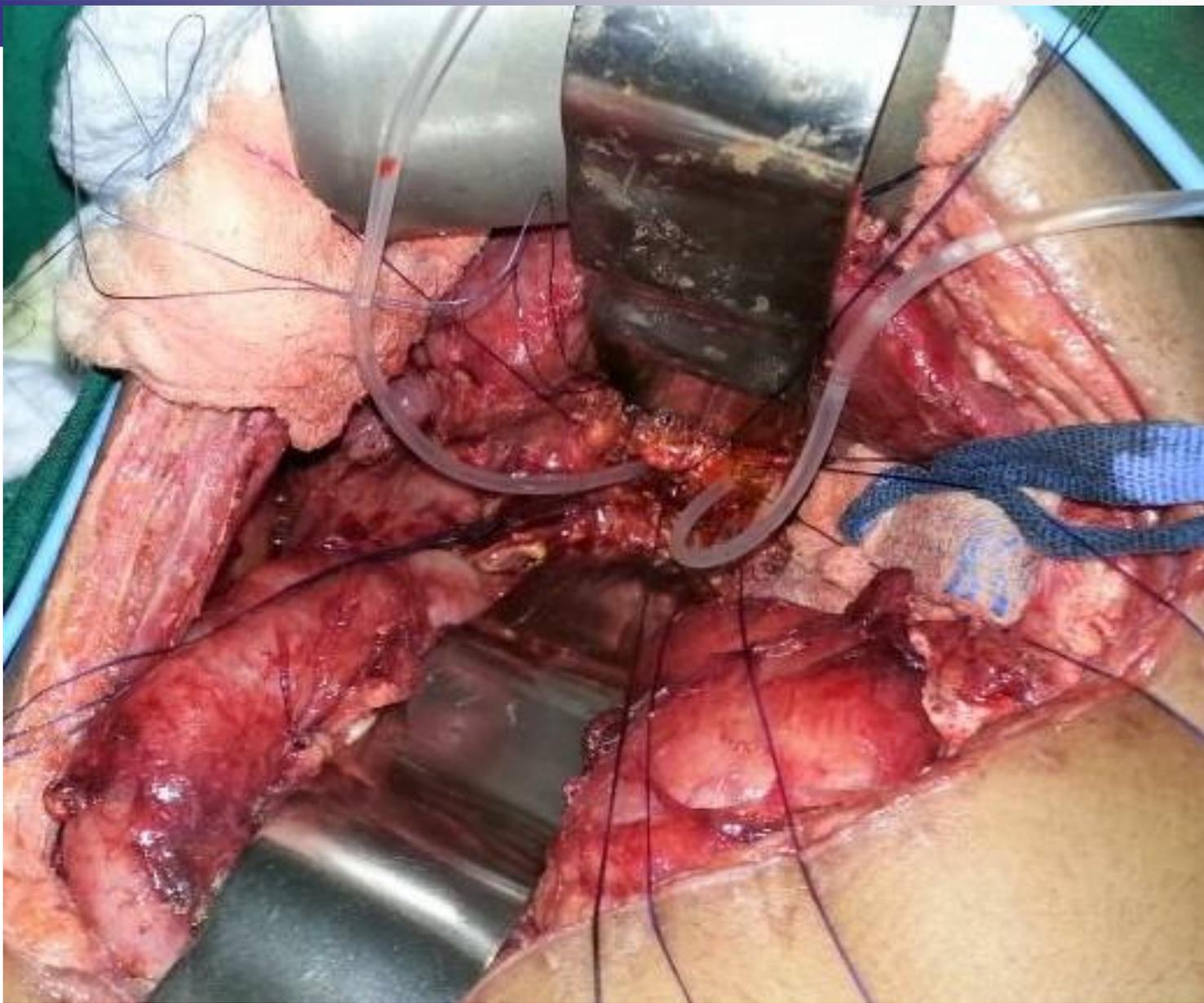
Distância no jejunum

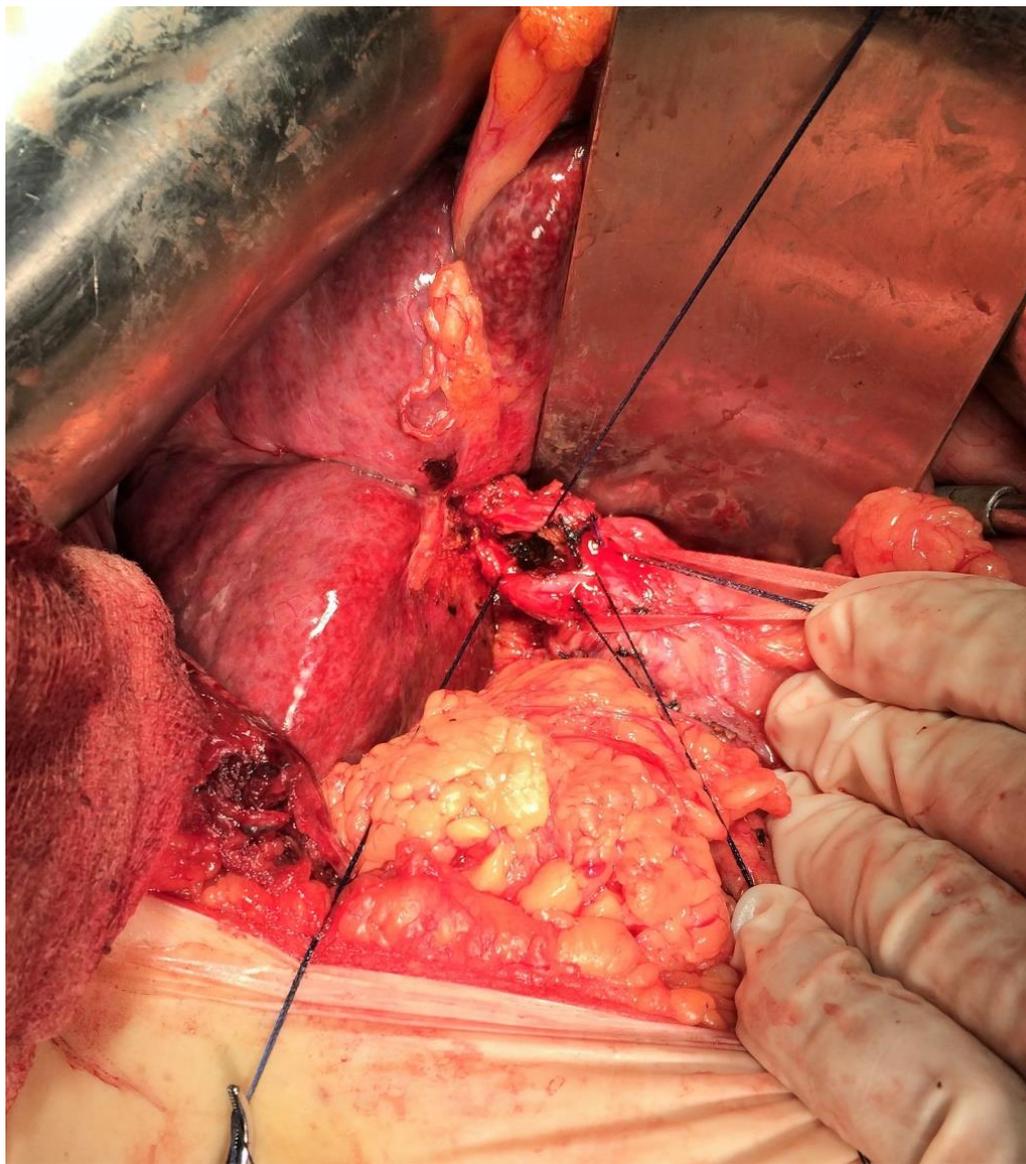
- Cateter:**
- Nos ductos separados
  - Passa pelo jejunum (dois pontos)
  - Jejunum fixado na parede
  - Cateter exteriorizado



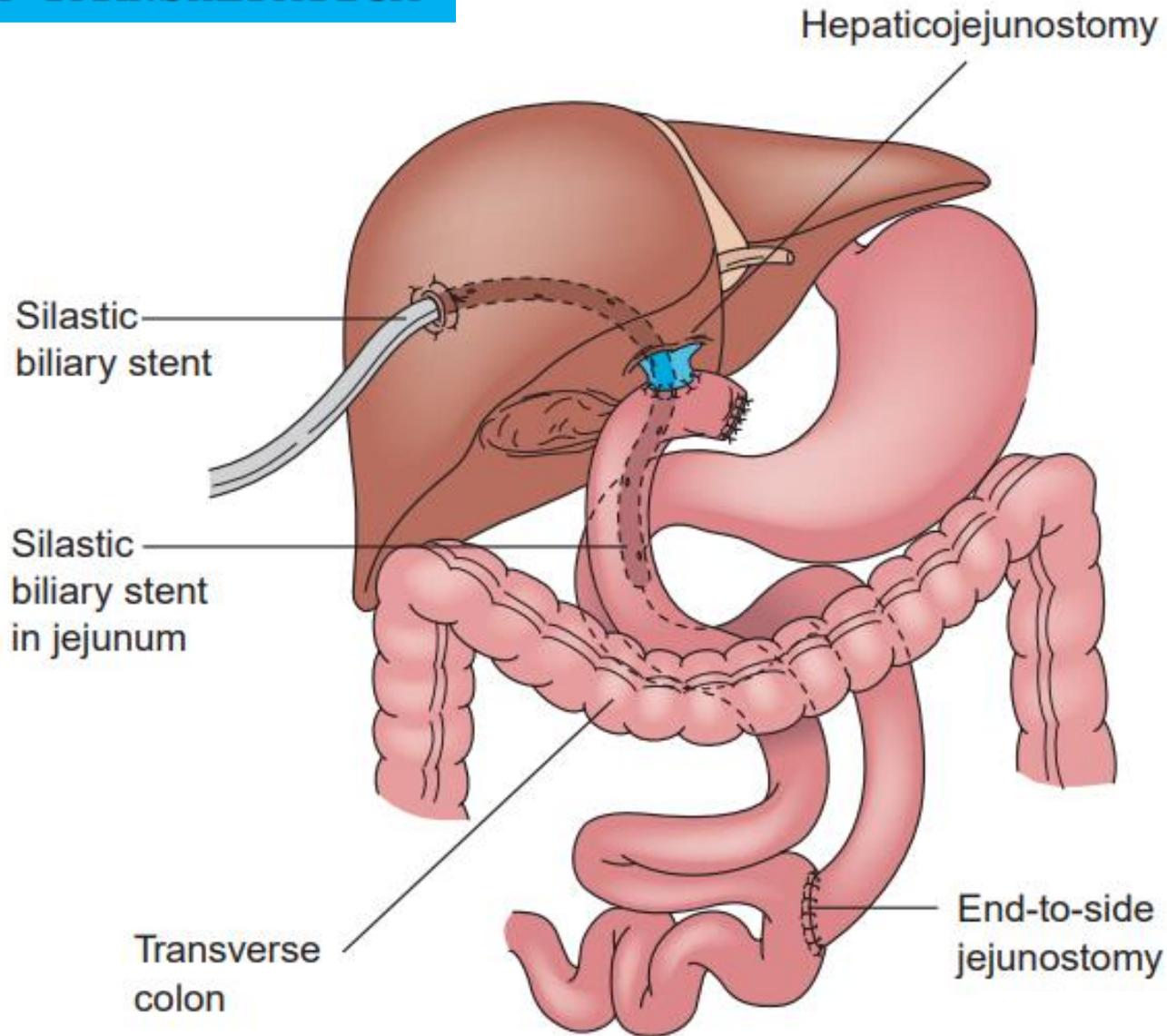
## DUCTOS SEPARADOS (AFASTADOS)

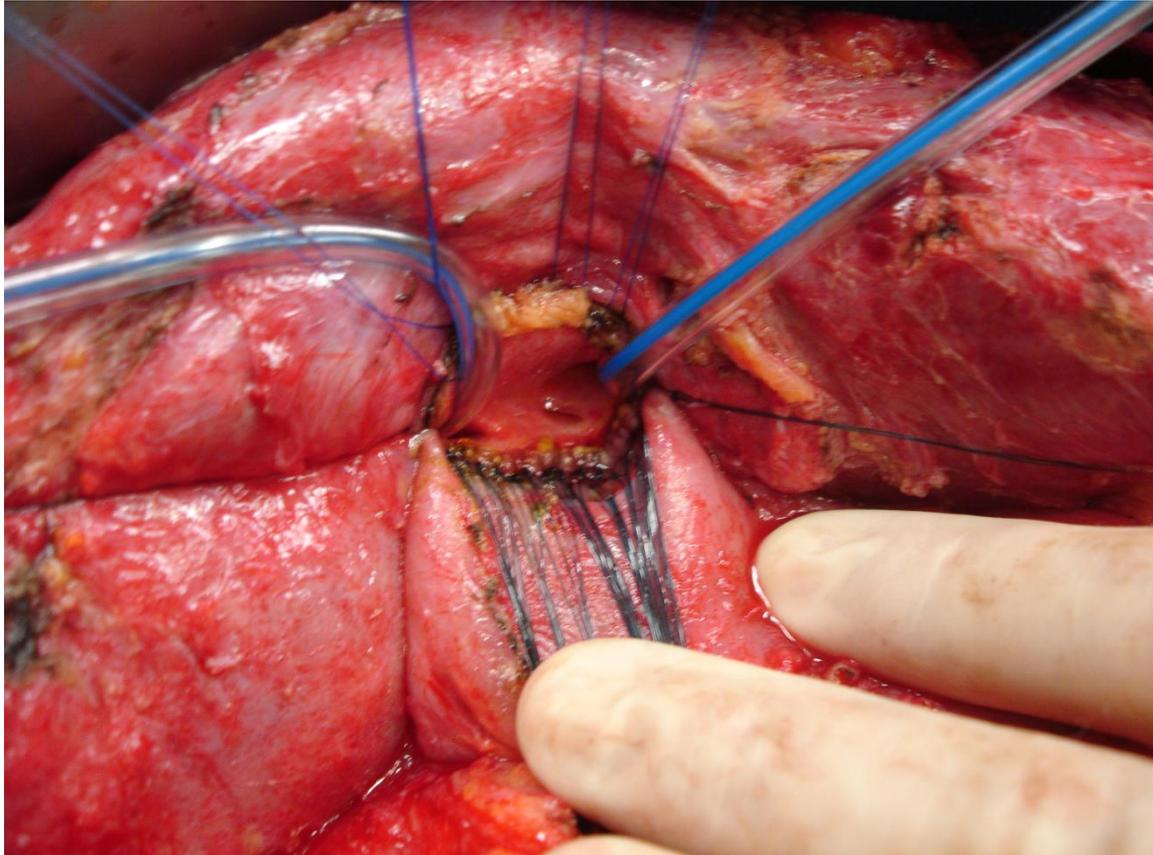


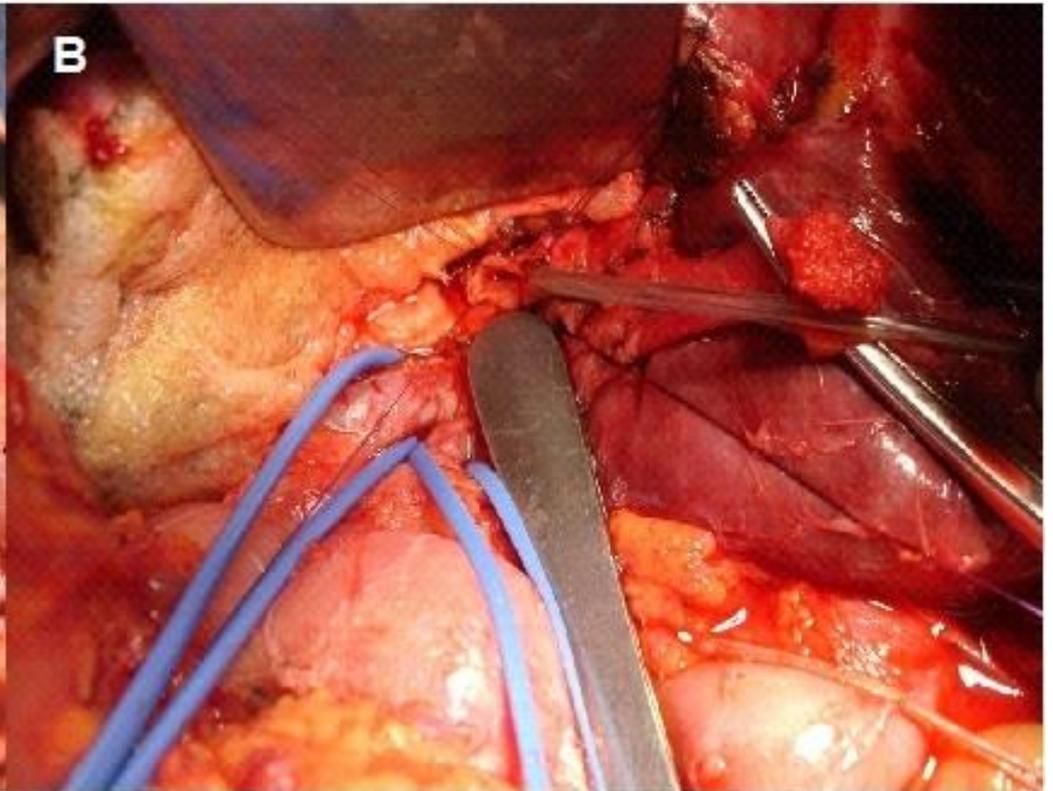
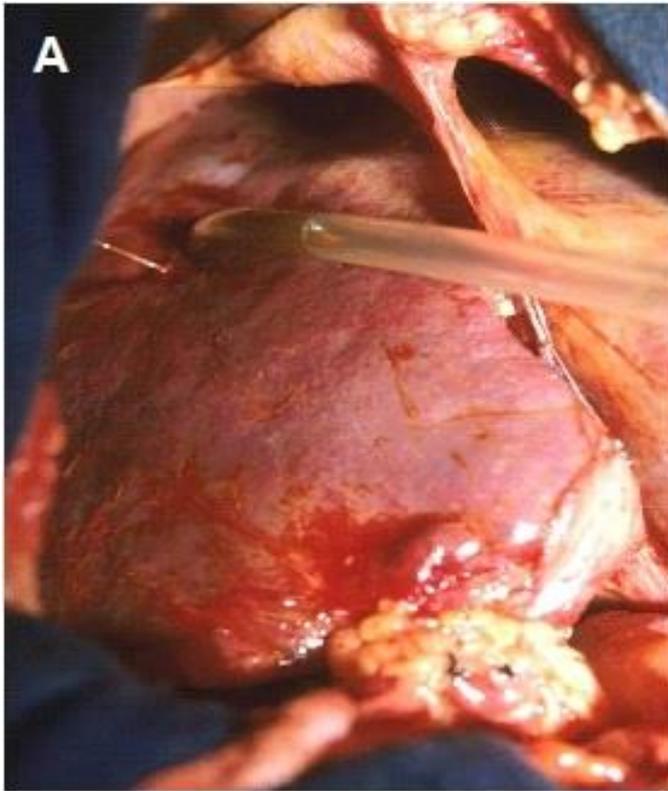




# DRENAGEM TRANSHEPÁTICA









[www.drorlandotorres.com.br](http://www.drorlandotorres.com.br)

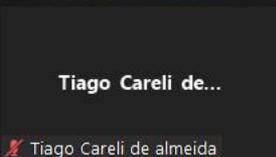
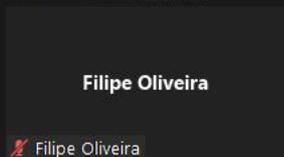
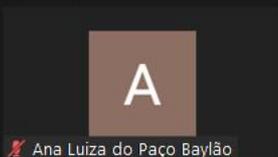
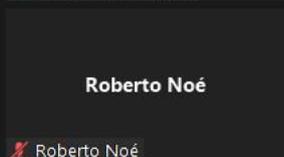
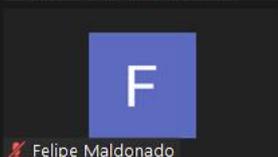
## Caso 2- R. M. S., 34 anos, sexo feminino

13/06/21: Derivação bilio-digestiva

Ligadura de colédoco distal, abertura de ductos hepáticos direito e esquerdo na confluência com uso de grampeador linear, secção de alça de jejuno com 1 carga e confecção de anastomose de alça de jejuno na confluência de ductos hepáticos em Y de Roux. confecção de entero entero anastomose completando base do Y.



A vertical grid of video call participants. From top to bottom: Renato Poletti (muted), terciogenzini (highlighted), Orlando Torres, Marina Guitton, Barbara Thomaz (muted), Marilia Ribeiro (muted), and Marcella Chiavegatto (muted, represented by a large 'M' icon). Each tile includes a small video feed and the participant's name.

 Renato Poletti	 terciogenzini	 Orlando Torres	 Marina Guitton	 Barbara Thomaz
 Marilya Ribeiro	 ailtonsepulveda	 Leandro Trama	 Jaldo Freire M.D.	 Marcella Chiavegatto
 Marcelo Perosa	 Tiago Careli de almeida	 Filipe Oliveira	 Naas	 liliam aparecida Oliveira
 Camila Freitas	 Thais Natália Almeida	 Joise Marem Ochoa	 Ana Luiza do Paço Baylão	 Gustavo Saccomam
 Viktor	 Alex Cleiton	 Roberto Noé	 Felipe Maldonado	 Juliana De Castro

Participants (34)

Find a participant

-  Orlando Torres (Me)
-  terciogenzini (Host)
-  Marcelo Perosa (Co-host)
-  Barbara Thomaz
-  Leandro Trama
-  PROF. VINICIUS SILVEIRA
-  ailtonsepulveda

Invite Mute Me

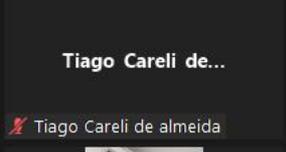
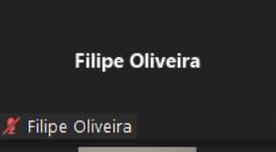
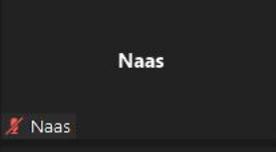
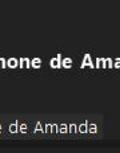
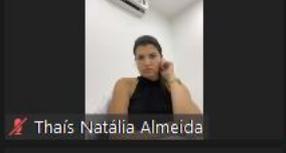
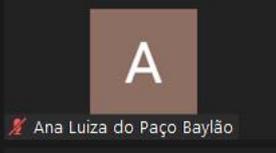
Chat

From **Benedito Mouchrek** to Everyone:  
Muito boa aula mestre!  
Obrigado e parabéns

From **PROF. VINICIUS SILVEIRA** to Everyone:  
Bom dia a todos. Parabéns  
Tércio e Orlando.

Who can see your messages?

To: Everyone Type message here...

 Renato Poletti	 terciogenzini	 Orlando Torres	 Marina Guitton	 Barbara Thomaz
 Marilya Ribeiro	 ailtonsepulveda	 Leandro Trama	 Jaldo Freire M.D.	 Marcella Chiavegatto
 Marcelo Perosa	 Tiago Careli de almeida	 Filipe Oliveira	 Naas	 liliam aparecida Oliveira
 iPhone de Amanda	 Thais Natália Almeida	 Camila Freitas	 Joise Marem Ochoa	 Ana Luiza do Paço Baylão
 Gustavo Saccomam	 Alex Cleiton	 Roberto Noé	 Felipe Maldonado	 Juliana De Castro

Participants (34)

Find a participant

-  Orlando Torres (Me)
-  terciogenzini (Host)
-  Marcelo Perosa (Co-host)
-  ailtonsepulveda
-  Alex Cleiton
-  Ana Luiza do Paço Baylão
-  Angela Pimentel

Invite Mute Me

Chat

From PROF. VINICIUS SILVEIRA to Everyone:  
Bom dia a todos. Parabéns Tércio e Orlando.

From Marcelo Perosa to Everyone:  
Parabéns, Orlando. Uma honra recebê-lo em nossa reunião.

Who can see your messages?

To: Everyone Type message here...

Mute Stop Video Participants 34 Chat Share Screen Record Reactions Leave