



EBSERH
HOSPITAIS UNIVERSITÁRIOS FEDERAIS

DUODENOPANCREATECTOMIA PADRONIZAÇÃO TÉCNICA

Palestrante Moderador

Caso Clínico



RESSECÇÃO VASCULAR

Dr. Marcelo Bruno
São Paulo - SP



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ABORDAGEM MESENTÉRICA

Dr. Eduardo Fernandes
Rio de Janeiro - RJ

Data: Segunda 10 de agosto 19:00 h



ID: 836 6196 8077
Senha: 625401



<https://youtu.be/s4jlo13Xxba>

DUODENOPANCREATECTOMIA: Padronização técnica



Orlando Jorge M. Torres

Professor Titular e Chefe do Serviço de
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Unidade Hepatopancreatobiliar
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Duodenopancreatectomia por adenocarcinoma de duodeno em paciente acima de 80 anos

Duodenopancreatectomy for adenocarcinoma of the duodenum in patient over 80 years of age

Unitermos: ressecção pancreática, tumores periampulares, cirurgia geriátrica.

Uniterms: pancreatic resection, periampullary carcinoma, geriatric surgery.

RESUMO

Este estudo tem por objetivo apresentar um caso de duodenopancreatectomia por adenocarcinoma de duodeno em paciente acima de 80 anos de idade. Os autores mostram que os baixos índices de mortalidade operatória justificam a ressecção pancreática, mesmo com a finalidade paliativa. Eles concluem que a idade não é um fator limitante para este procedimento. A ressecção pode ser realizada com um índice aceitável de sobrevida mesmo em pacientes acima de 80 anos, desde que os cuidados relacionados à seleção e preparo destes pacientes sejam obedecidos.

Orlando Jorge Martins Torres

Professor assistente de Clínica Cirúrgica da Universidade Federal do Maranhão. Mestre em Cirurgia do aparelho digestivo. Chefe de Residência Médica em Cirurgia Geral (UFMA).

Artur Serra Neto

Márcio Jorge de Carvalho Gonçalves
Wilson José de Sena Pedro

Residentes de Clínica Cirúrgica da Universidade Federal do Maranhão - Hospital Universitário (UFMA).

Duodenopancreatectomia por trauma

José Antônio Ferreira Bezerra¹, ACBC-MA
Orlando Jorge Martins Torres², TCBC-MA
 Gutemberg Fernandes de Araújo³, TCBC-MA
 Orlando José dos Santos³
 Márcio Jorge de Carvalho Gonçalves⁴
 Alexandre Souza Neto⁵

RESUMO

BEZERRA JAF, TORRES OJM, ARAÚJO GF, SANTOS OJ, GONÇALVES MJC à. SOUZA NETO A - Duodenopancreatectomy due to trauma. **Rev bras Cir**, 1996; 86(6): 291-292

É apresentado um caso de duodenopancreatectomia em um paciente com lesão duodenopancreática combinada. Os autores discutem as indica-

Relato de Caso

Rev.Med.Res.

Vol. 5 - N°3:89-91, Out./Dez. 2003

DUODENOPANCREATECTOMIA POR CARCINOMA DE CÓLON INFILTRANDO O DUODENO

DUODENOPANCREATECTOMY FOR PRIMARY COLORECTAL CARCINOMA INVOLVING THE DUODENUM

Orlando Jorge Martins Torres¹

Lia Raquel de Alcântara Caldas²

Ricardo Lima Palácio²

Rodrigo Palácio de Azevedo²

Introdução

O carcinoma de cólon localmente avançado permanece como um dos principais desafios da *réia muco-sanguinolenta, plenitude pós-prandial e dor na fossa ilíaca direita. Nega ou-*

DUODENOPANCREATECTOMIAS: ANÁLISE DE 39 PACIENTES

PANCREATICODUODENECTOMIES: ANALYSIS OF 39 PATIENTS

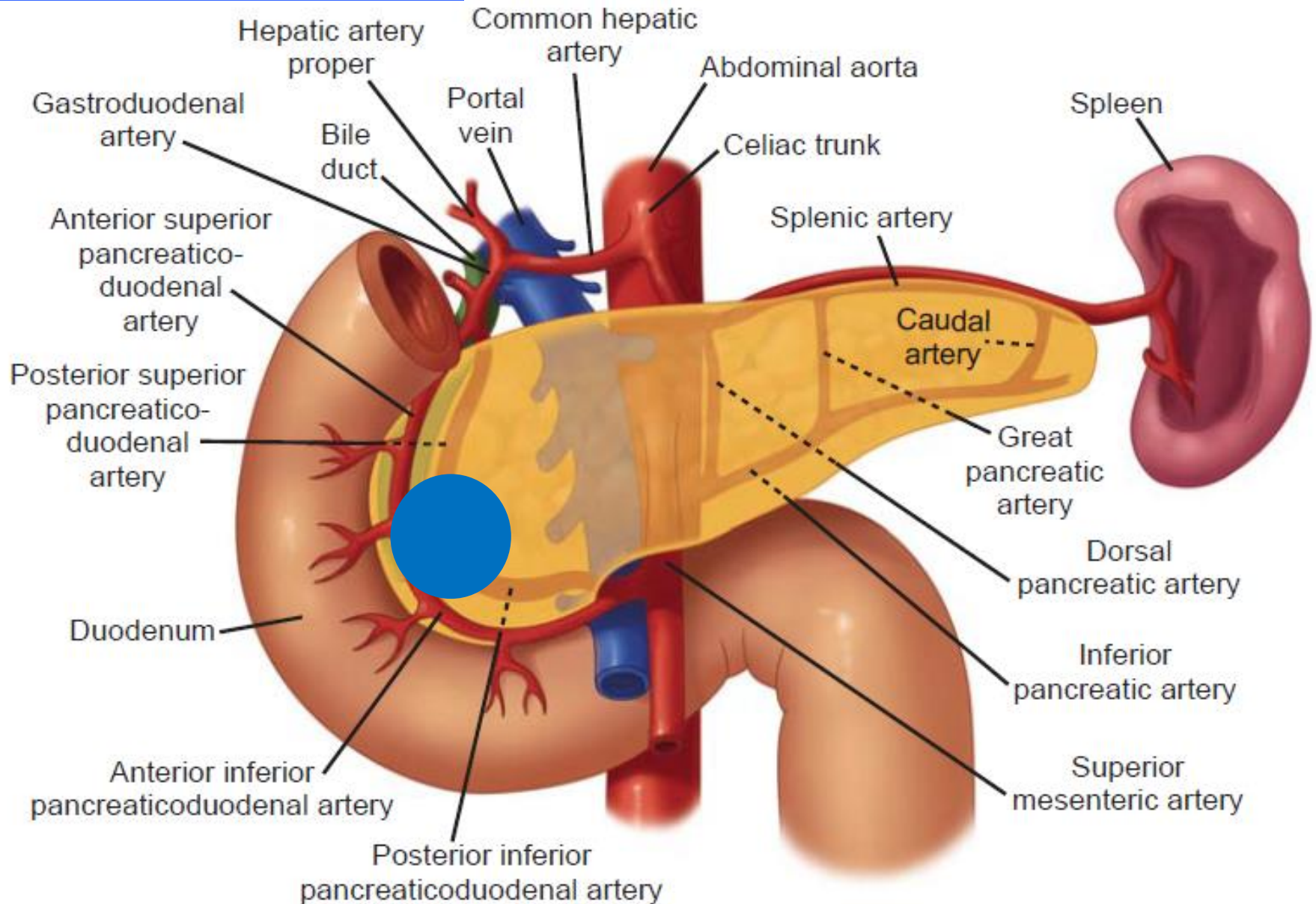
Orlando Jorge Martins Torres, TCBC-MA¹; Érica Sampaio Barbosa²; Noelia Dias Carneiro Barros²; Cristiany de Almeida Barros²; Edson Dener Zandonadi Ferreira²; Herquimas Costa Pereira, ACBC-MA³

RESUMO: **Objetivo:** Pretendemos neste estudo analisar 39 pacientes submetidos à duodenopancreatectomia. **Método:** No período de julho de 1998 a março de 2004, trinta e nove pacientes foram submetidos a duodenopancreatectomia no Hospital Universitário da Universidade Federal do Maranhão. Foram analisados os dados epidemiológicos, o quadro clínico, os métodos radiológicos, as indicações da operação e as complicações encontradas. **Resultados:** Havia 22 pacientes do sexo masculino (56,4%) e 17 pacientes do sexo feminino (43,6%) com média de idade de 54,9 anos (variação de 21-82 anos). O exame radiológico mais utilizado foi a tomografia computadorizada. O diagnóstico histológico definitivo revelou adenocarcinoma periampolar em 35 pacientes (89,7%), pancreatite crônica (três pacientes – 7,7%) e adenocarcinoma colo-retal (um paciente – 2,6%). O adenocarcinoma periampolar mais freqüente foi o carcinoma ductal do pâncreas (27 pacientes – 69,2%), seguido por carcinoma de papila de Vater (cinco pacientes – 12,8%), adenocarcinoma duodenal (dois pacientes – 5,1%) e carcinoma de via biliar distal (um paciente – 2,6%). As complicações pulmonares foram as mais freqüentes sendo encontradas em cinco pacientes (12,8%), a sepse peritoneal em quatro pacientes (10,2%), fístula pancreática em três pacientes (7,6%) e a hemorragia intra-abdominal em três pacientes (7,6%). A mortalidade intra-hospitalar em 30 dias foi 10,2 % (quatro pacientes). **Conclusão:** A duodenopancreatectomia ainda está associada a morbidade considerável. Entretanto com uma seleção adequada destes pacientes este procedimento pode ser realizado de forma segura com melhores resultados (*Rev. Col. Bras. Cir.* 2007; 34(1): 21-24).

Descritores: Pancreaticoduodenectomy; Neoplasias do ducto biliar comum; Ampola hepatopancreática.

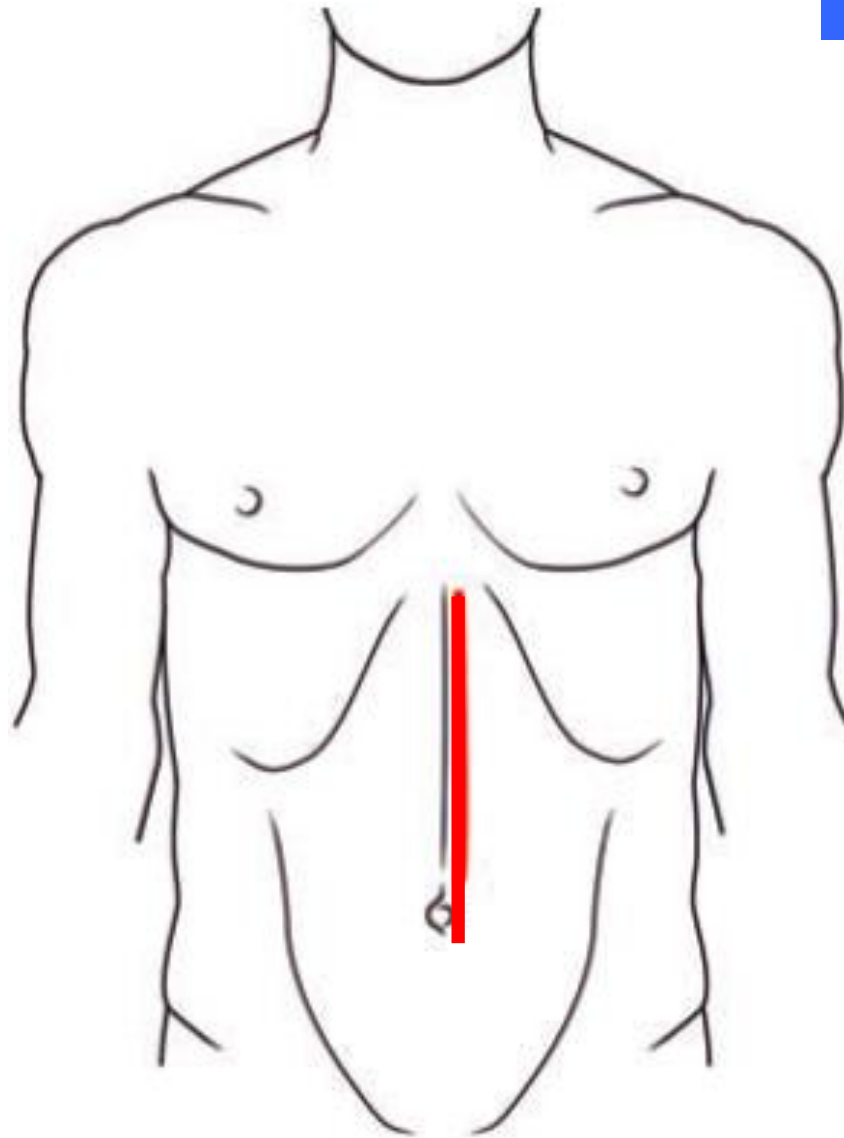
☐ 1998 – 2004
☐ 6,5/ano

ANATOMIA



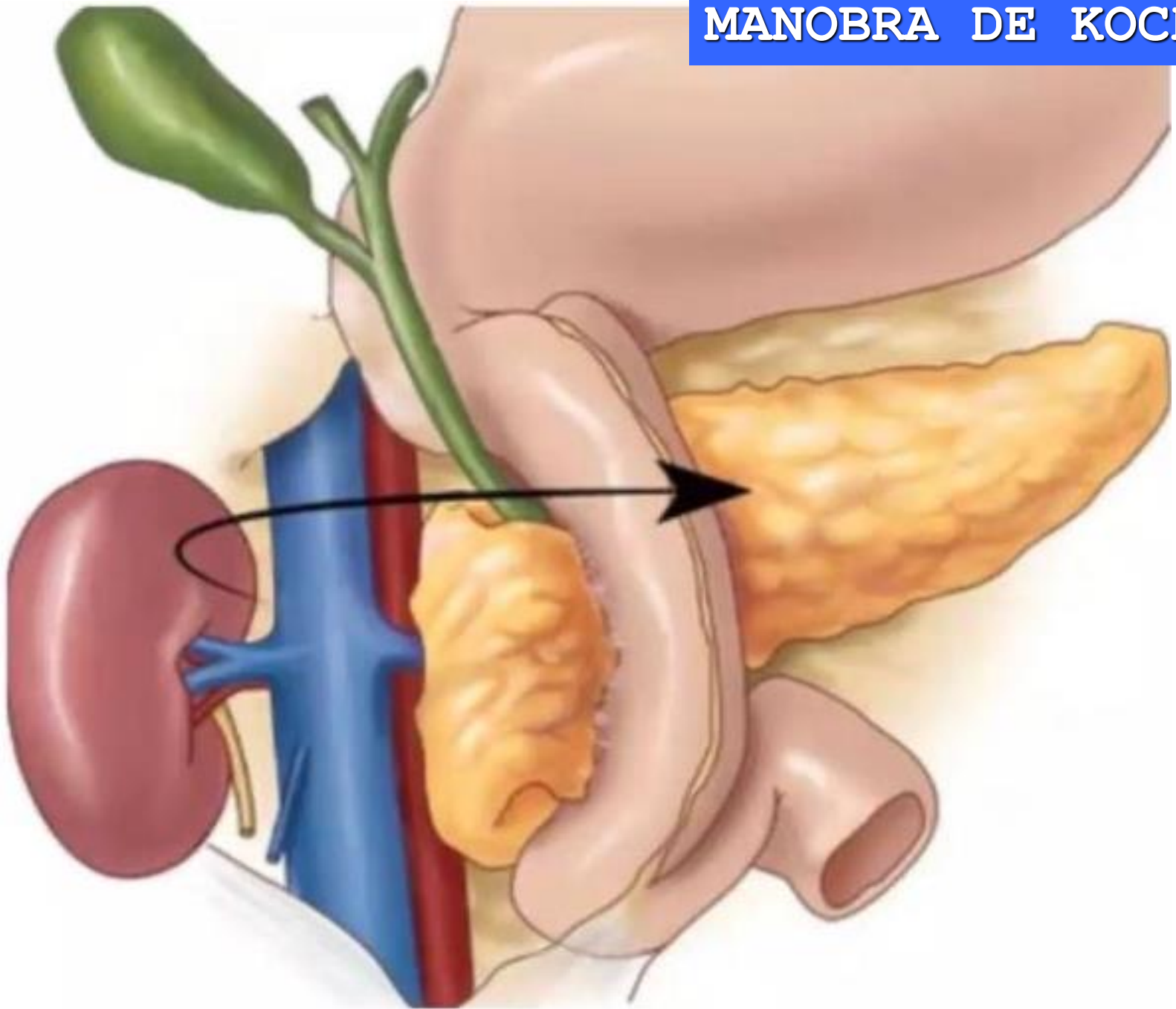
DUODENOPANCREATECTOMIA

- ☐ Sangramento
- ☐ Fístula pancreática
- ☐ Gastroparesia
- ☐ Padrão oncológico

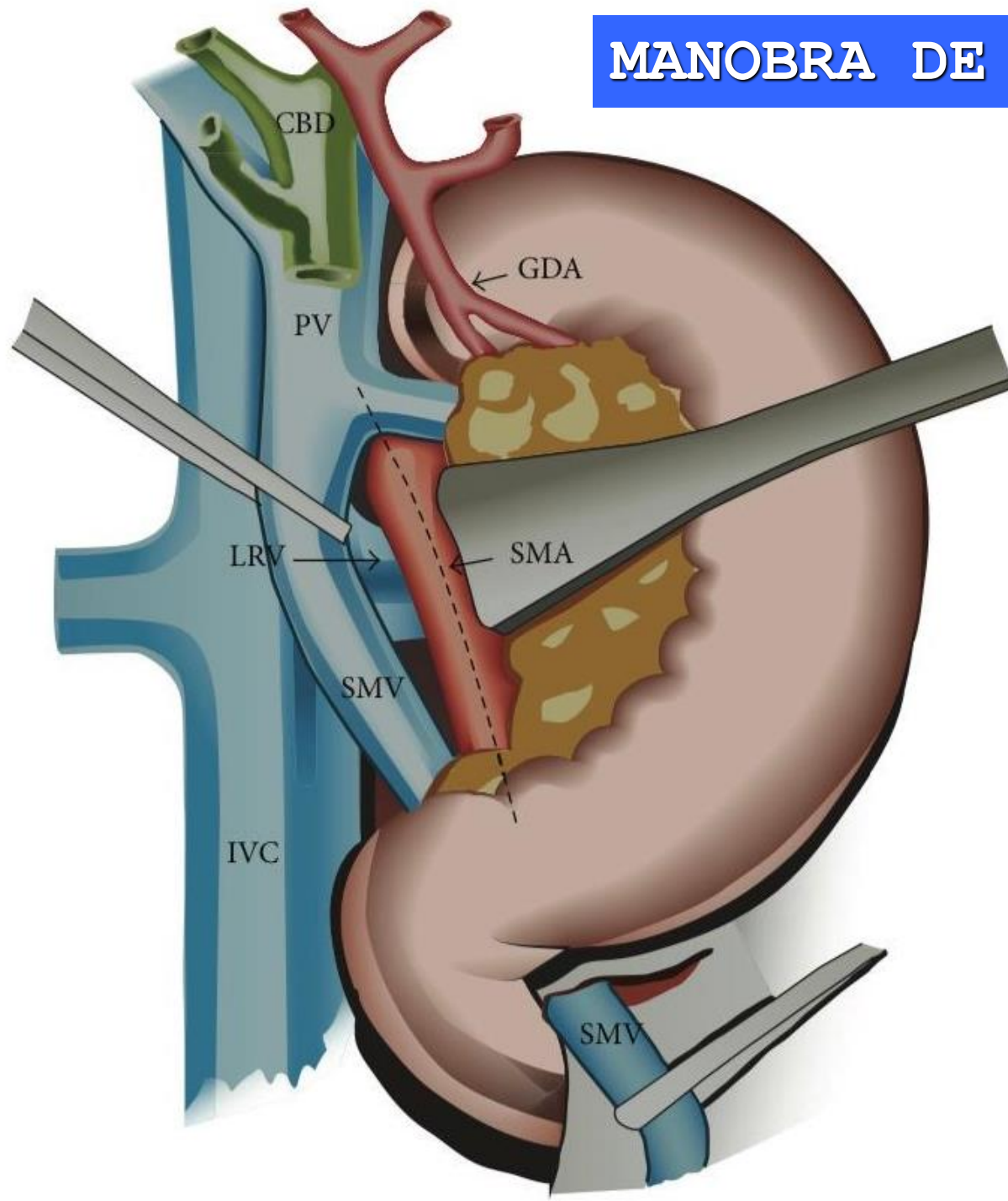


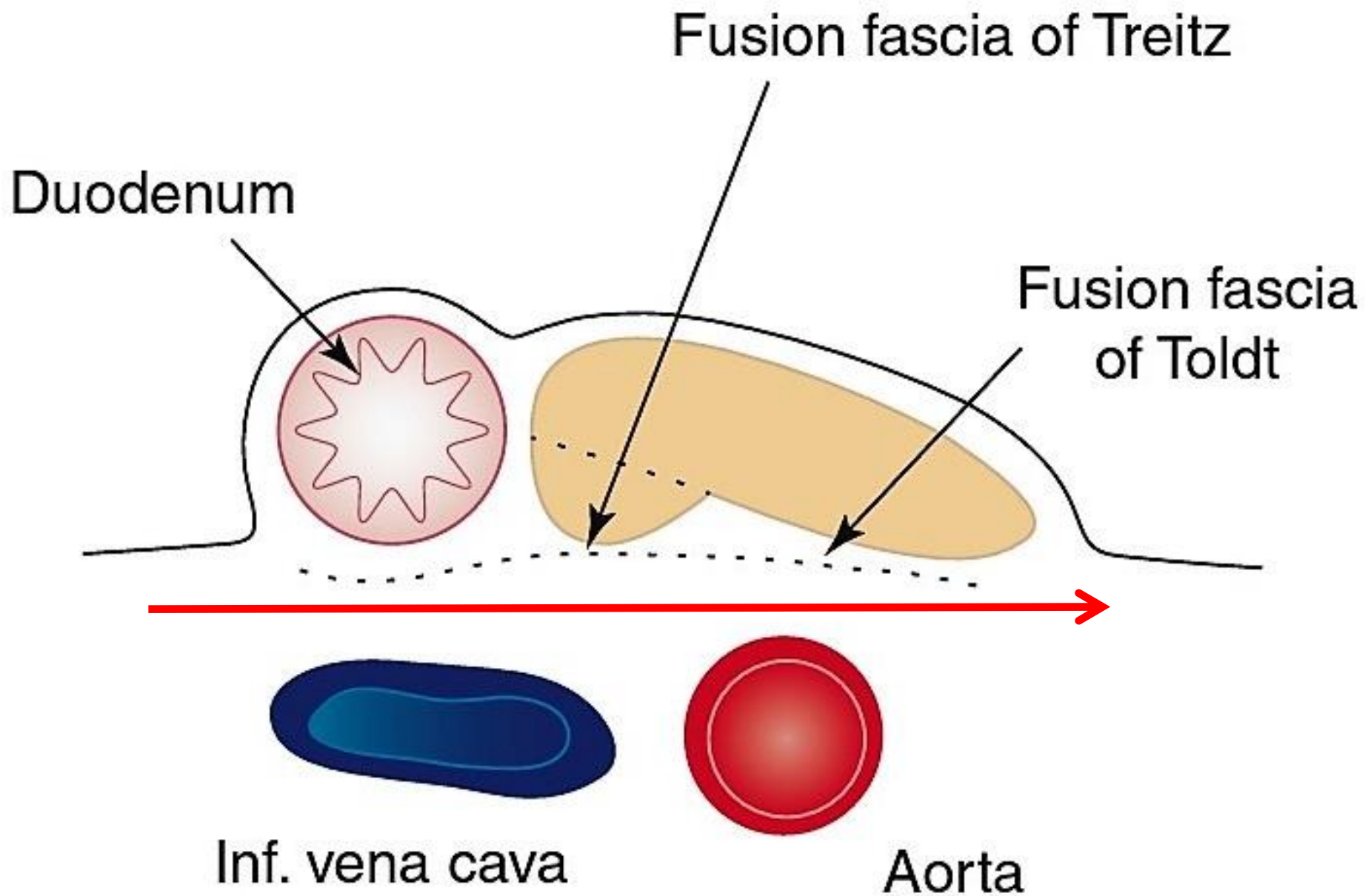
Midline

MANOBRA DE KOCHER



MANOBRA DE KOCHER





MANOBRA DE KOCHER

A. mesentérica superior

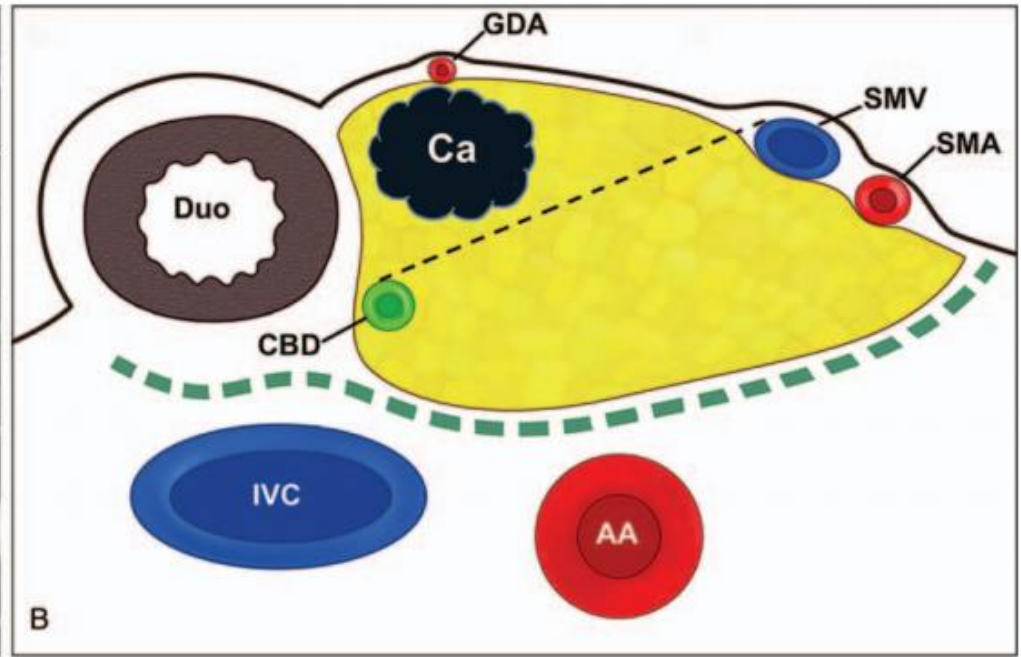
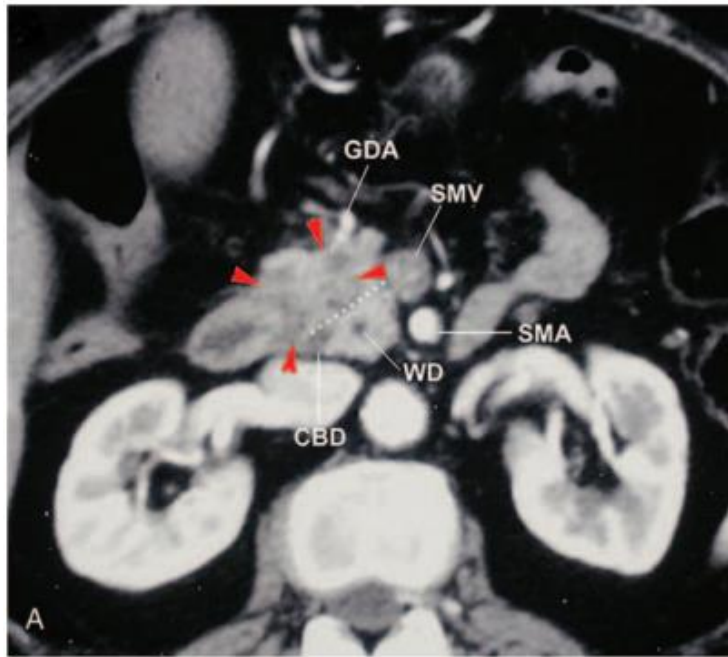
Veia renal E

Aorta

Veia cava

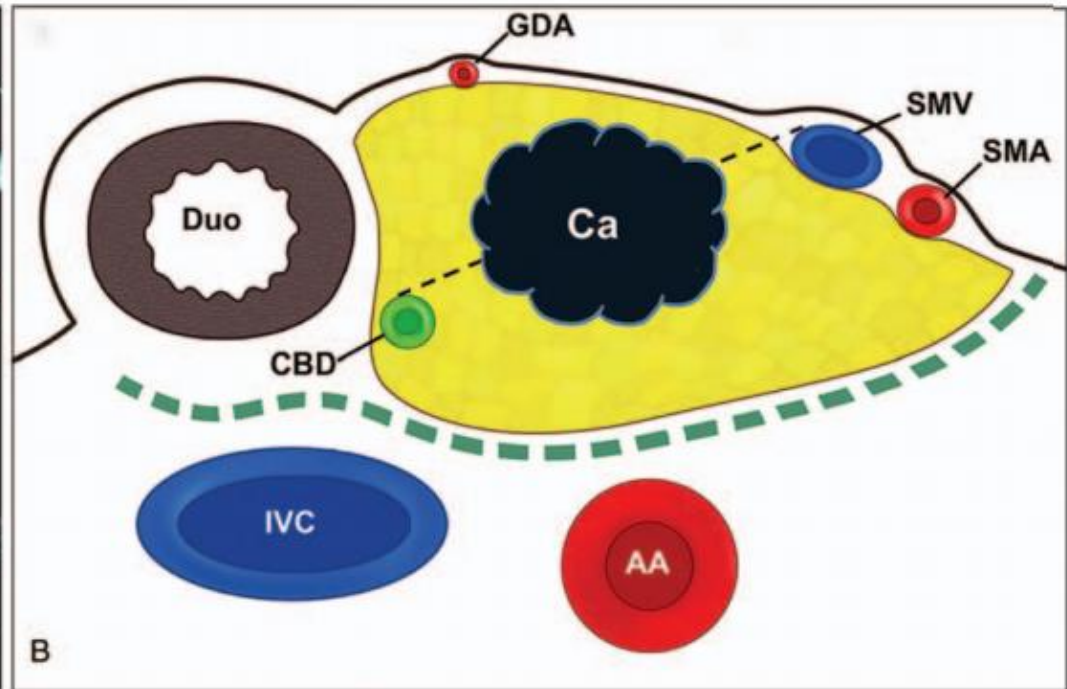
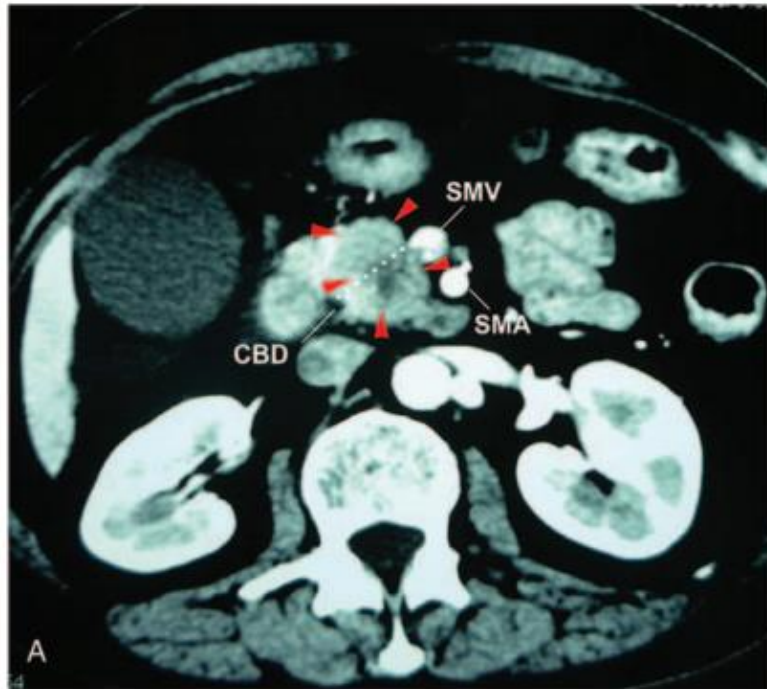
Duodeno

MANOBRA DE KOCHER



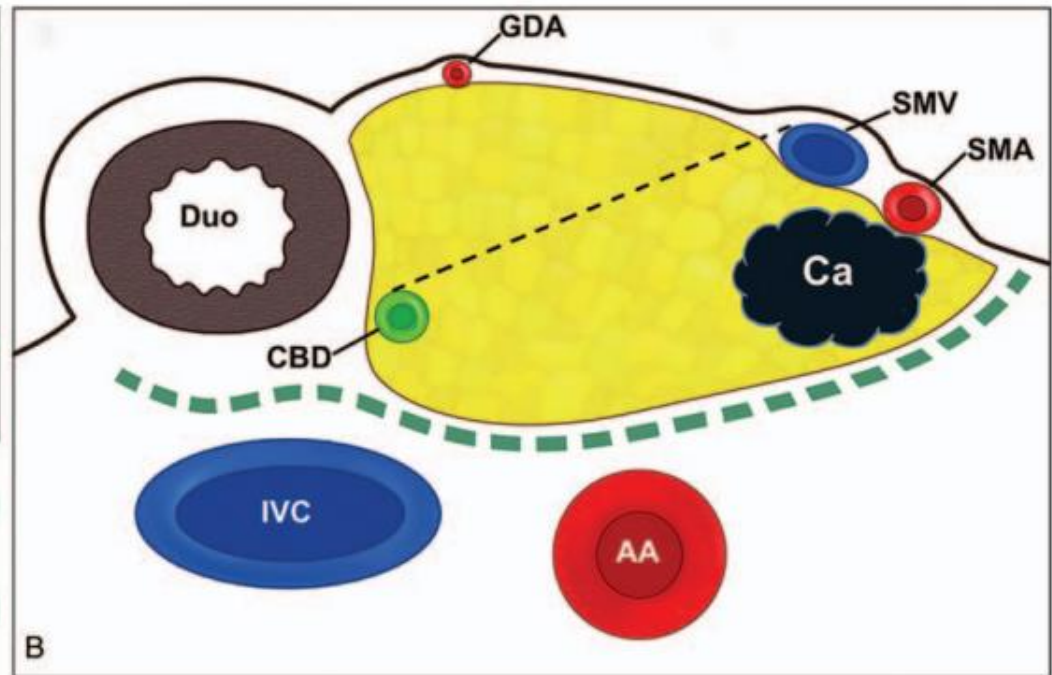
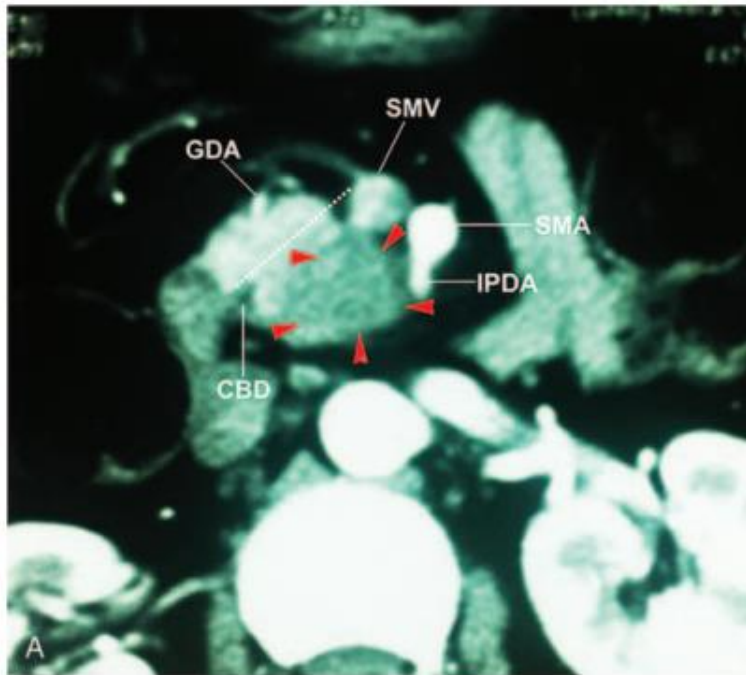
Localização do tumor: anterior

MANOBRA DE KOCHER



Localização do tumor: central

MANOBRA DE KOCHER



Localização do tumor: uncinado

ARTERY FIRST

SUPERIOR APPROACH
(Makino et al, 2008)

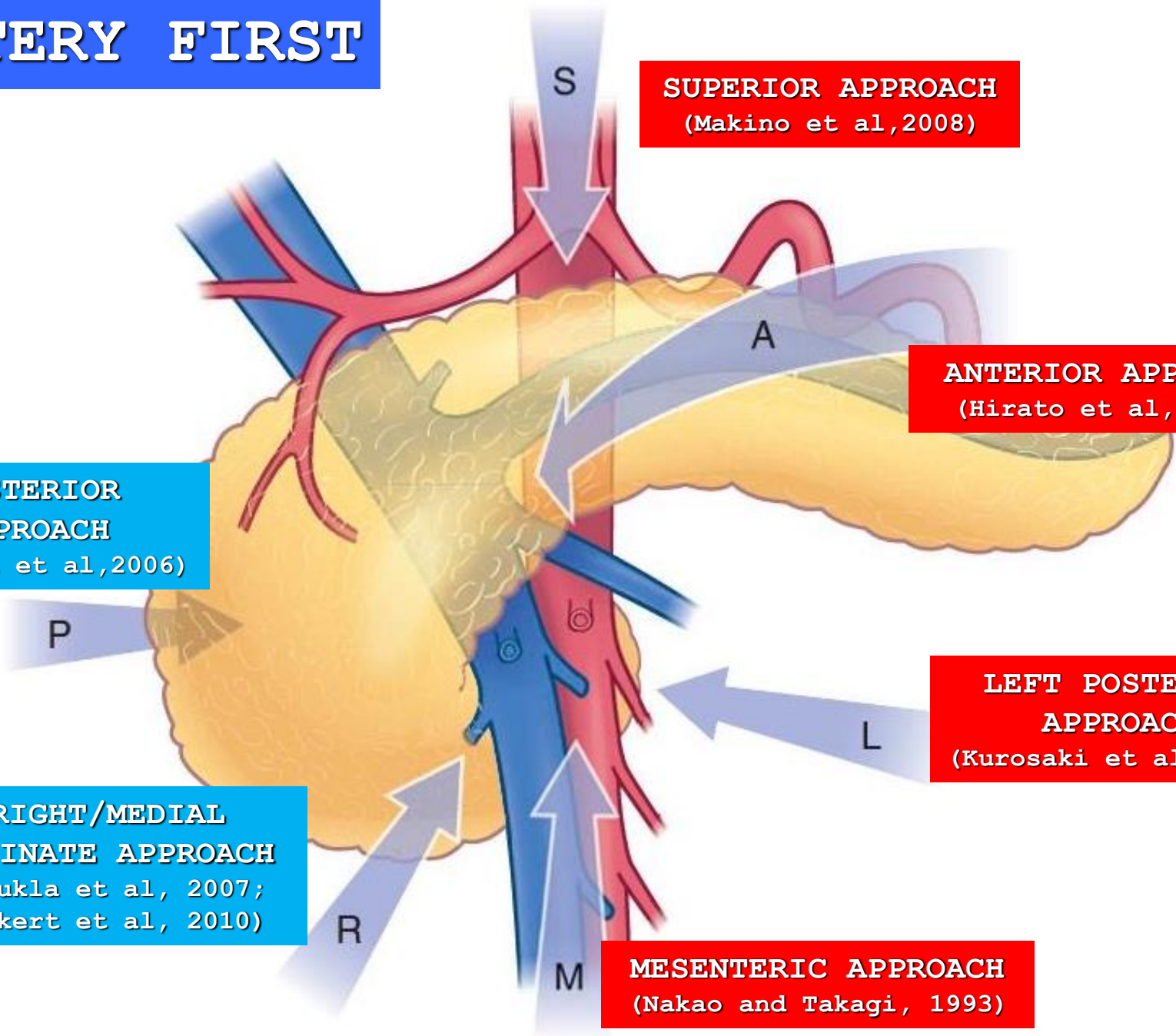
ANTERIOR APPROACH
(Hirato et al, 2010)

POSTERIOR APPROACH
(Pessaux et al, 2006)

LEFT POSTERIOR APPROACH
(Kurosaki et al, 2011)

**RIGHT/MEDIAL
UNCINATE APPROACH**
(Shukla et al, 2007;
Hackert et al, 2010)

MESENTERIC APPROACH
(Nakao and Takagi, 1993)



POSTERIOR APPROACH

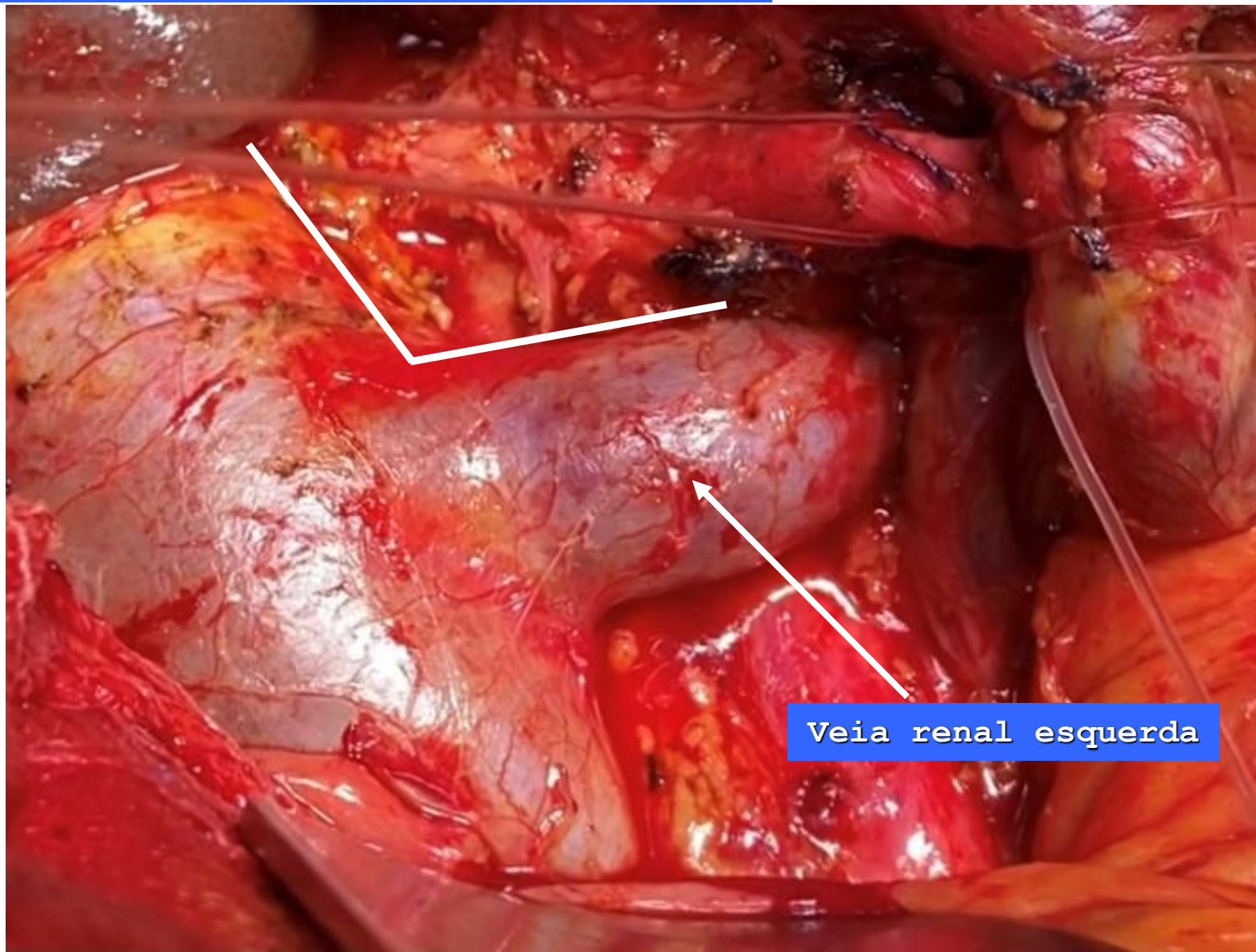
Table 18.1 Summary of indications, advantages and disadvantages of various ‘artery-first approaches’

Approach	References	Indication(s)	Advantages and disadvantages
Posterior	Pessaux et al. (2006) [13]	Postero-medial tumour in the head/neck, especially involving the PV/SMV Periampullary tumour extending from the body to the head	Advantages Early identification of SMA involvement Identification of replaced RHA Enables adequate retropancreatic lymphadenectomy Early identification of SMV involvement and facilitates en bloc resection Disadvantages Difficult in cases of PD with peripancreatic inflammation and adhesions around the head of the pancreas

POSTERIOR APPROACH

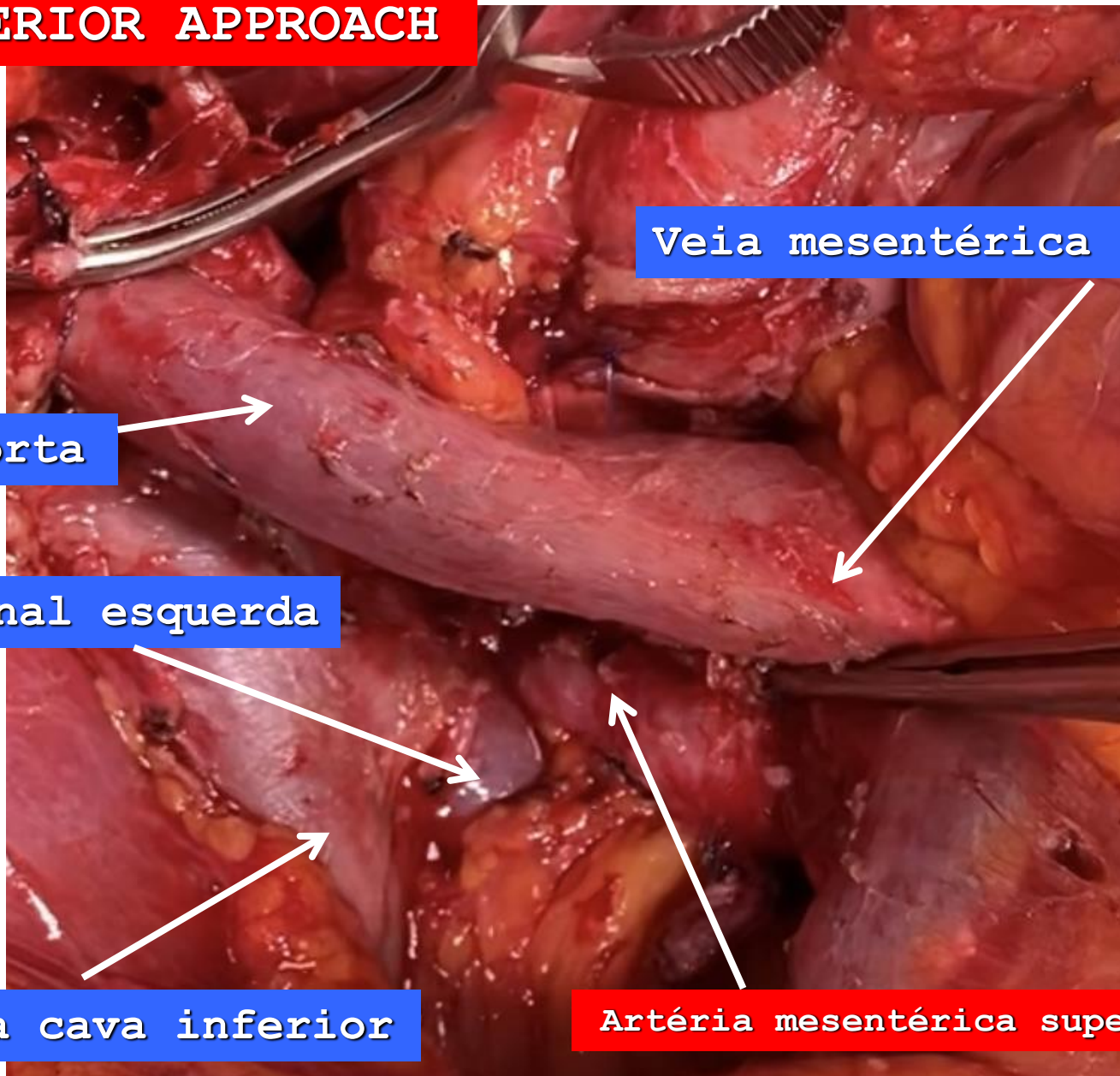


Exposição da veia renal esquerda



Veia renal esquerda

POSTERIOR APPROACH



Veia mesentérica superior

Veia porta

Veia renal esquerda

Veia cava inferior

Artéria mesentérica superior

POSTERIOR APPROACH

Artéria hepática
direita

Artéria hepática
esquerda

Artéria mesentérica
superior

Veia porta

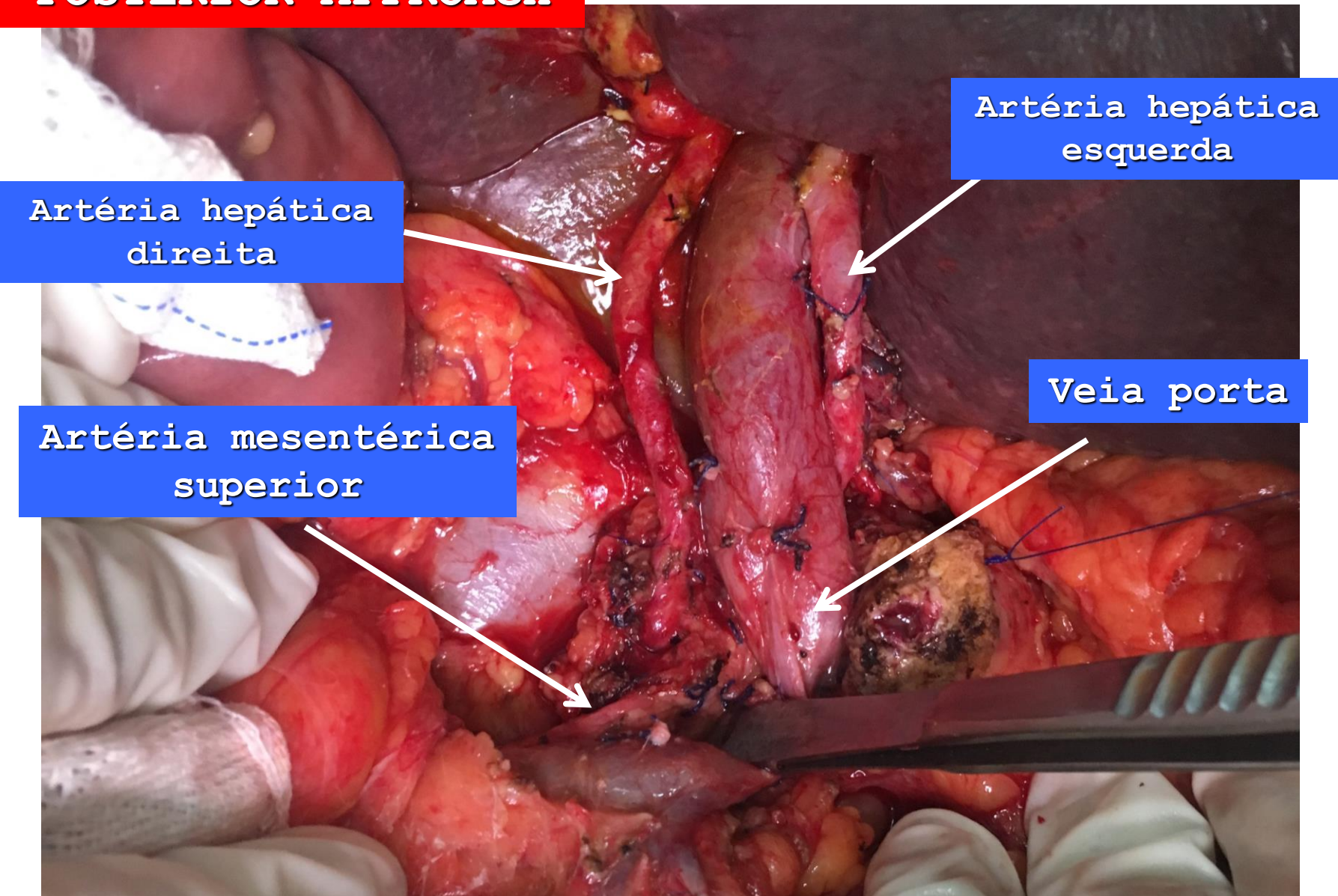
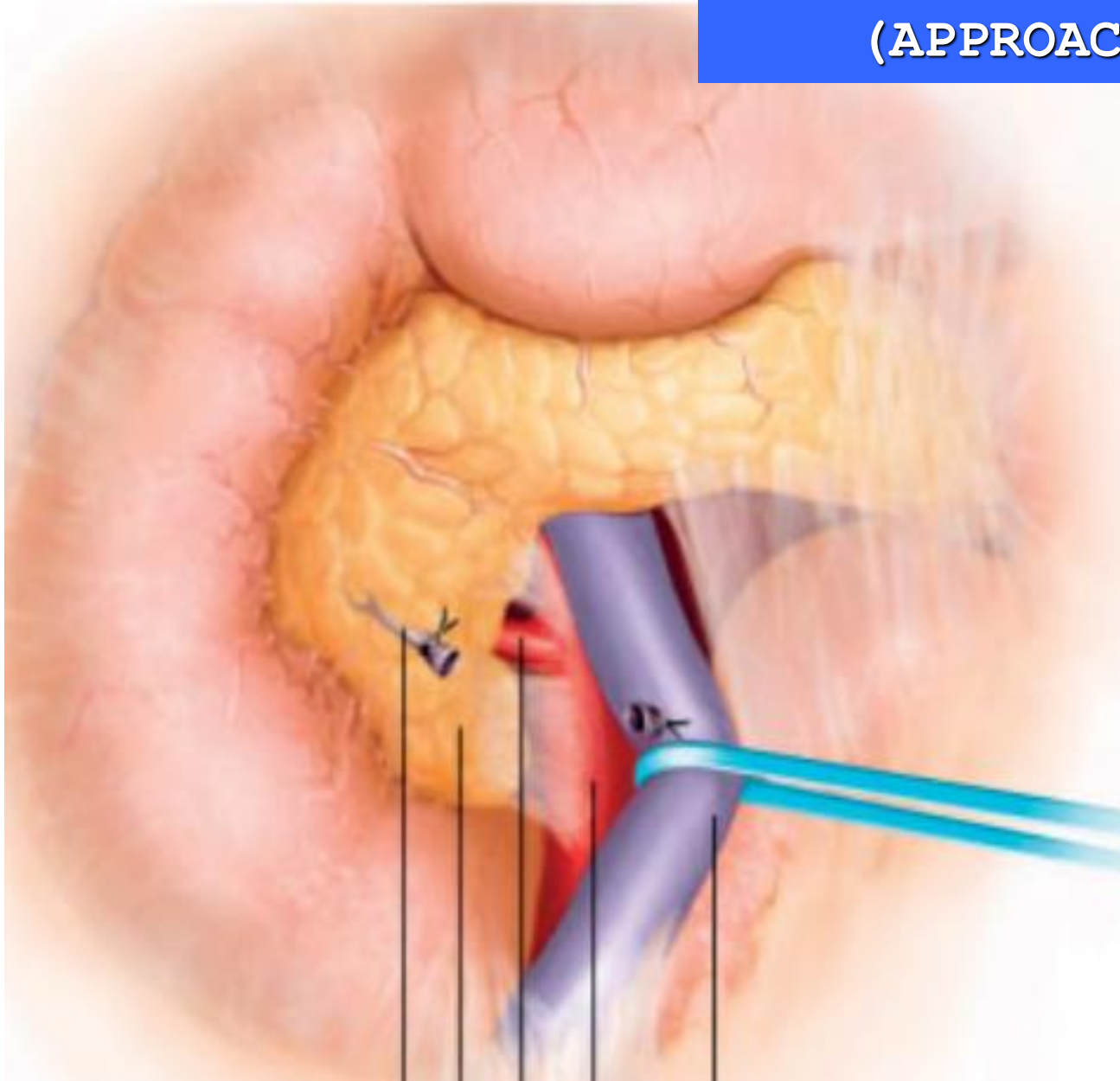


Table 18.1 Summary of indications, advantages and disadvantages of various ‘artery-first approaches’

Approach	References	Indication(s)	Advantages and disadvantages
Medial uncinata	Hackert et al. (2010) [19] Shukla et al. (2007) [23]	Malignant tumours of the uncinata process	Advantages Early identification of SMA involvement at the uncinata Early ligation of IPDA arteries minimizing bleeding Useful approach in peripancreatic inflammation with difficulty tunnelling above the portal vein Useful approach for total pancreatectomy as mobilization can be achieved without transecting the gland Disadvantages Late identification of replaced RHA

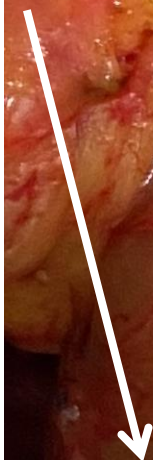
UNCINATE FIRST (APPROACH)



UNCINATE FIRST

Exposição da veia mesentérica superior

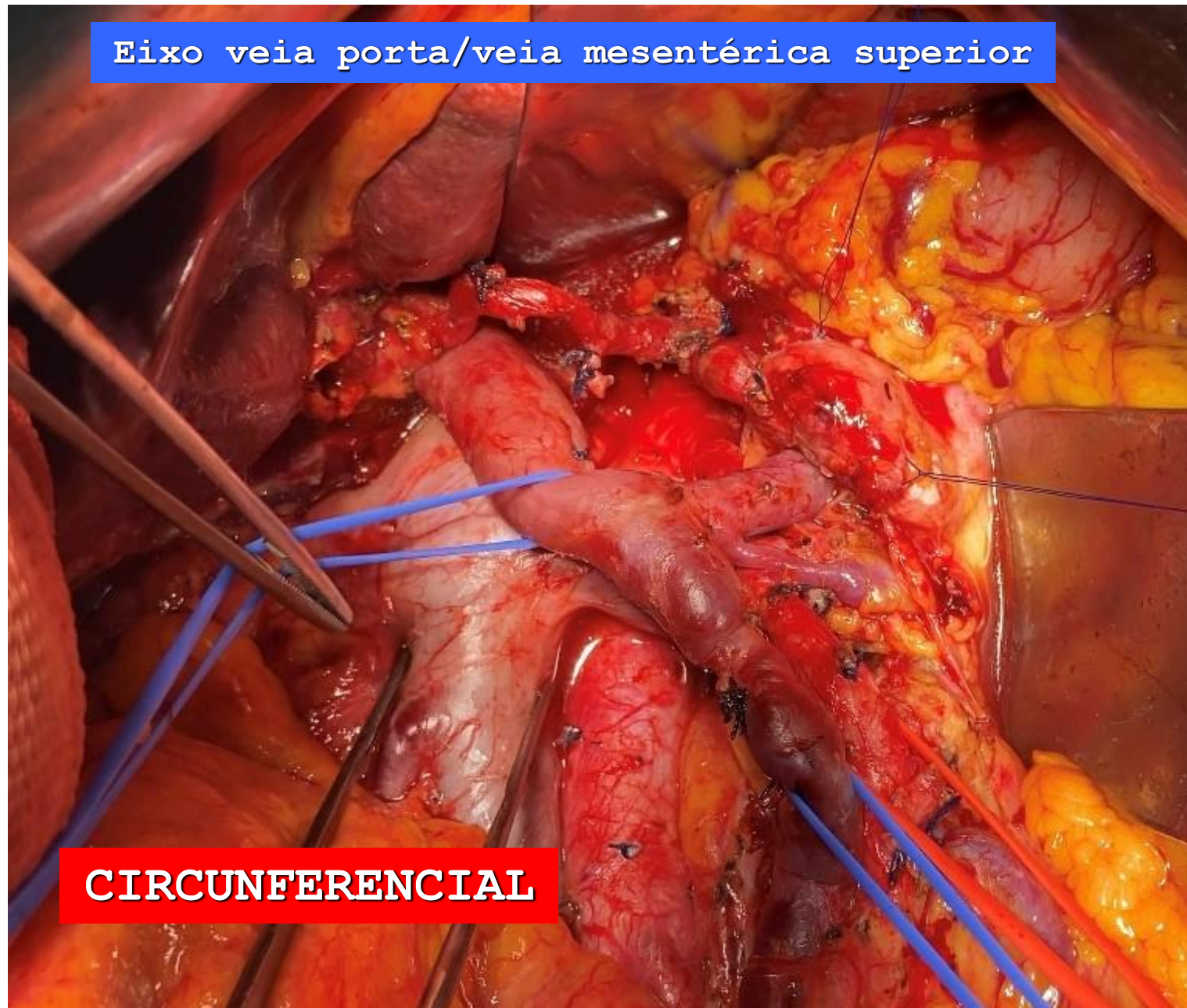
Duodeno



Cabeça do pâncreas

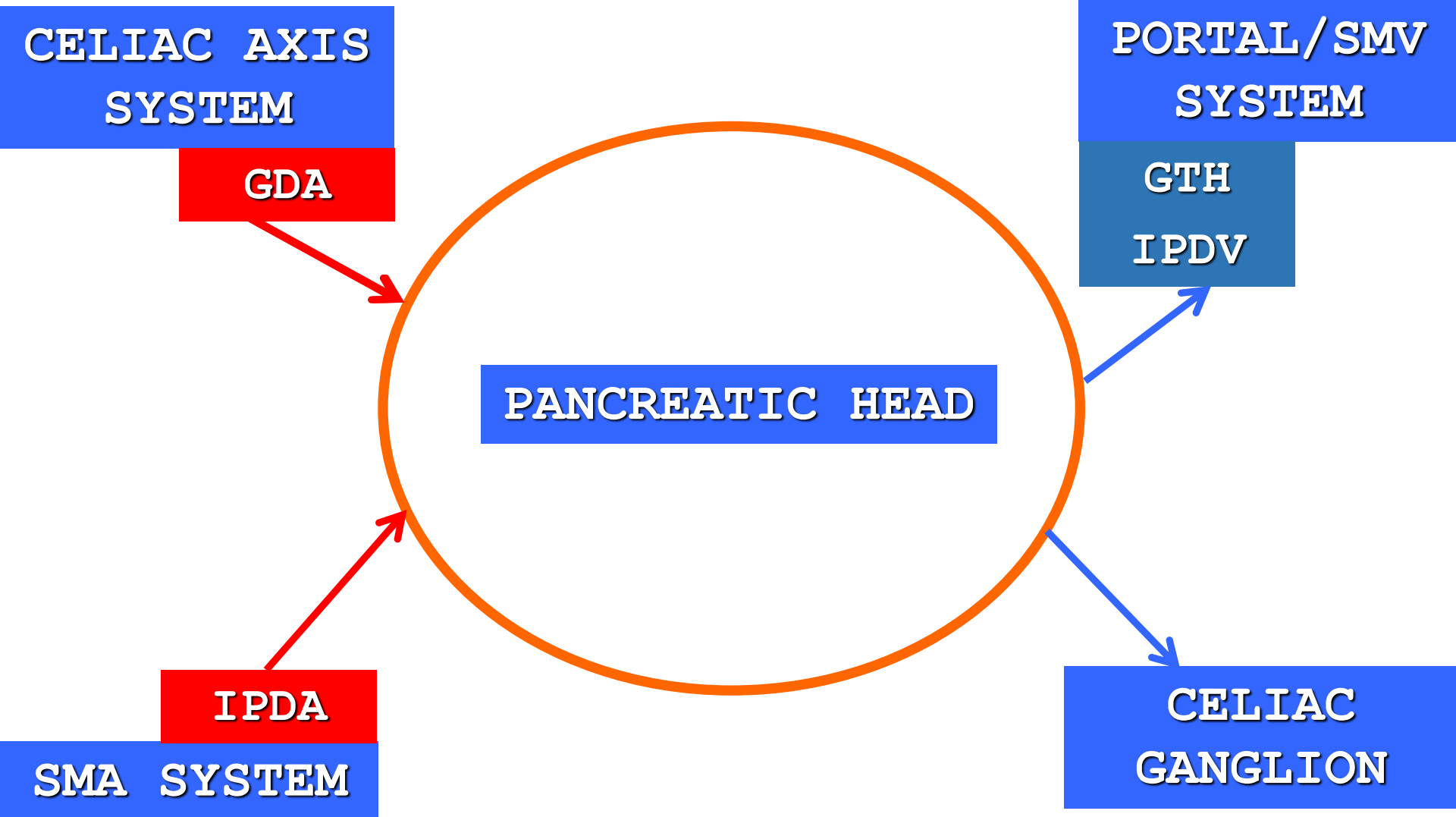
Veia mesentérica superior

Eixo veia porta/veia mesentérica superior



CIRCUNFERENCIAL

CONCEITO DE LIGADURA CENTRAL VASCULAR

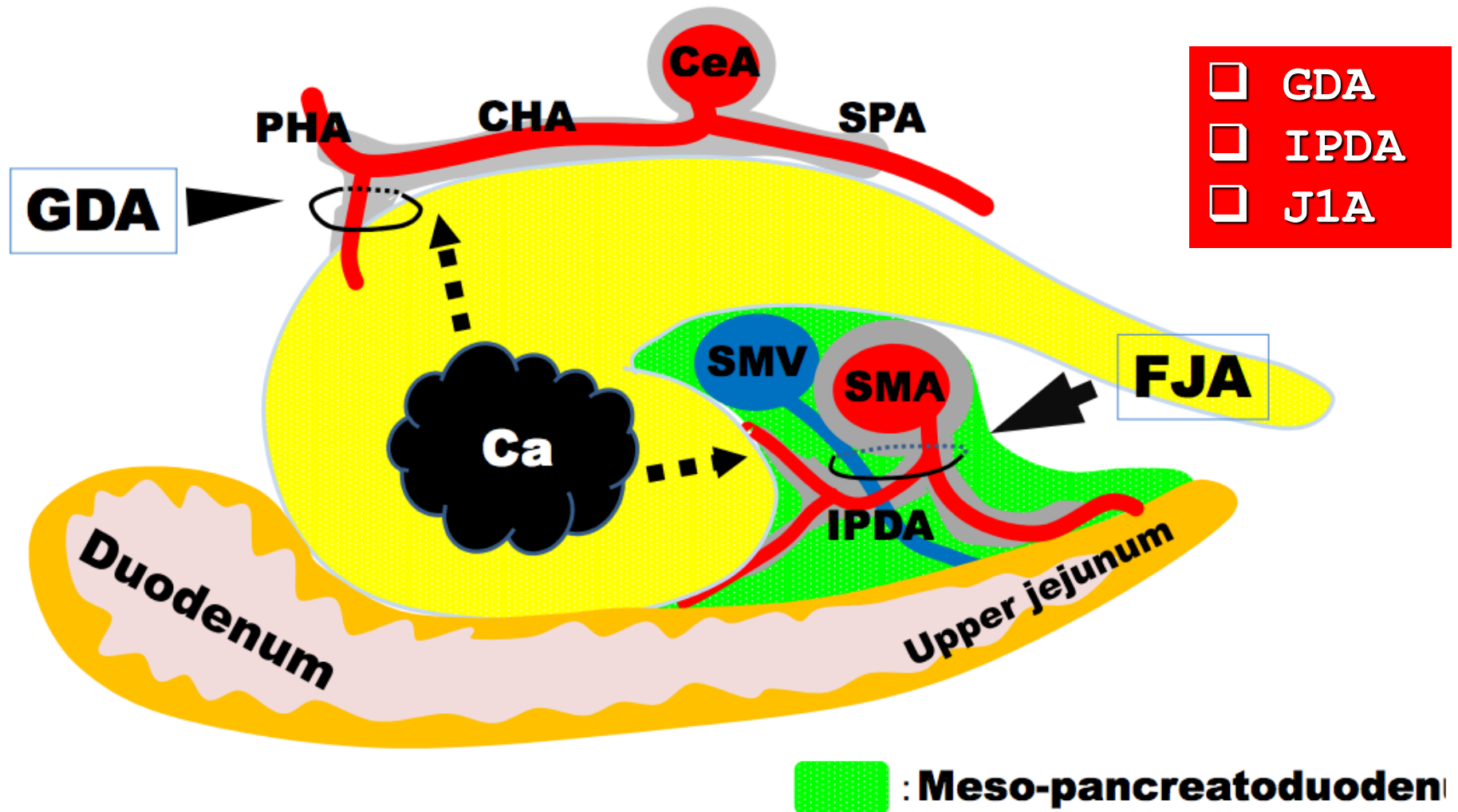


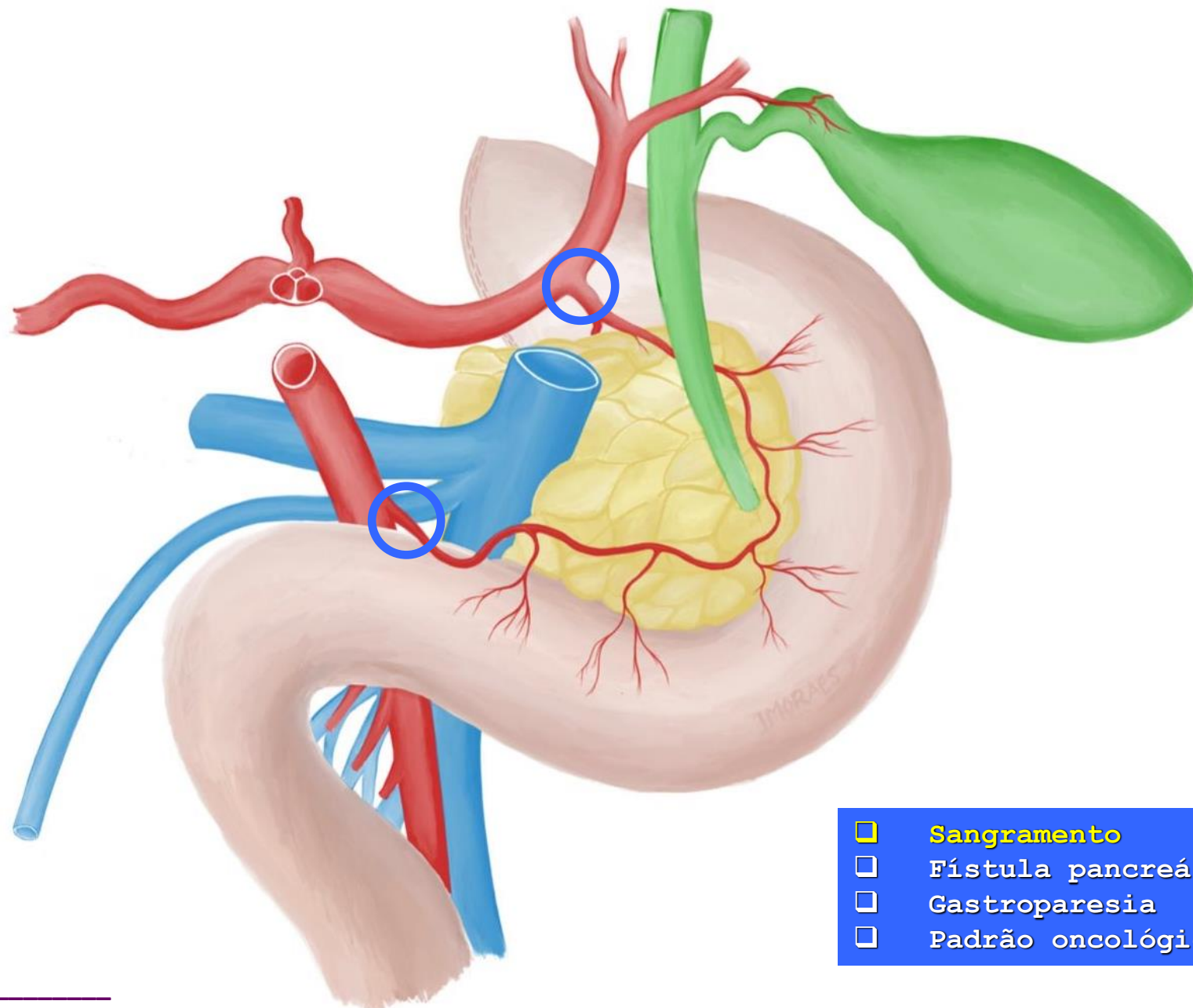
CONCEITO DE LIGADURA CENTRAL VASCULAR

- ☐ Sangramento
- ☐ Fístula pancreática
- ☐ Gastroparesia
- ☐ Padrão oncológico

- ☐ ARTÉRIA GASTRODUODENAL
- ☐ ARTÉRIA PANCREATODUODENAL INFERIOR
- ☐ PRIMEIRA ARTÉRIA JEJUNAL

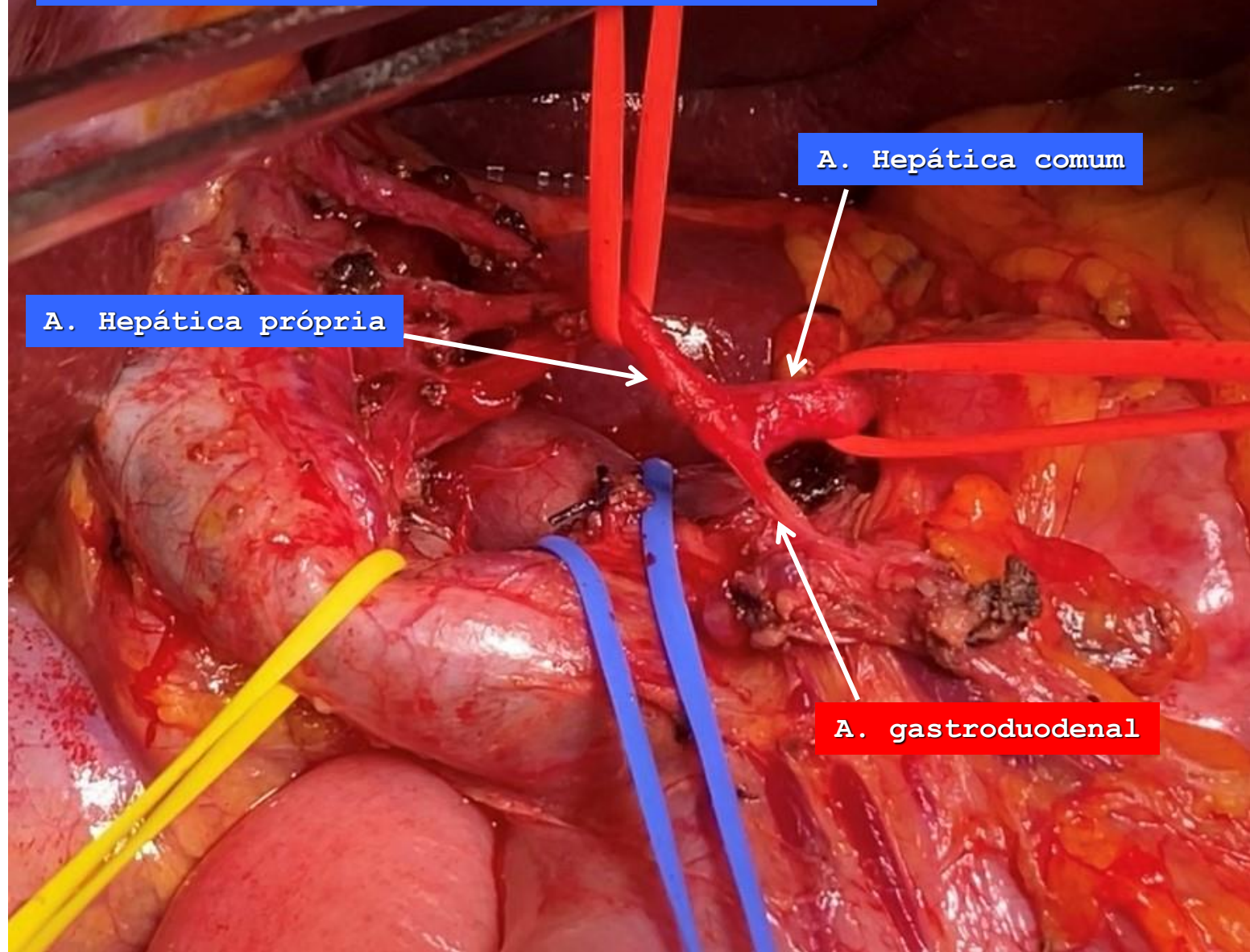
LIGADURA CENTRAL VASCULAR



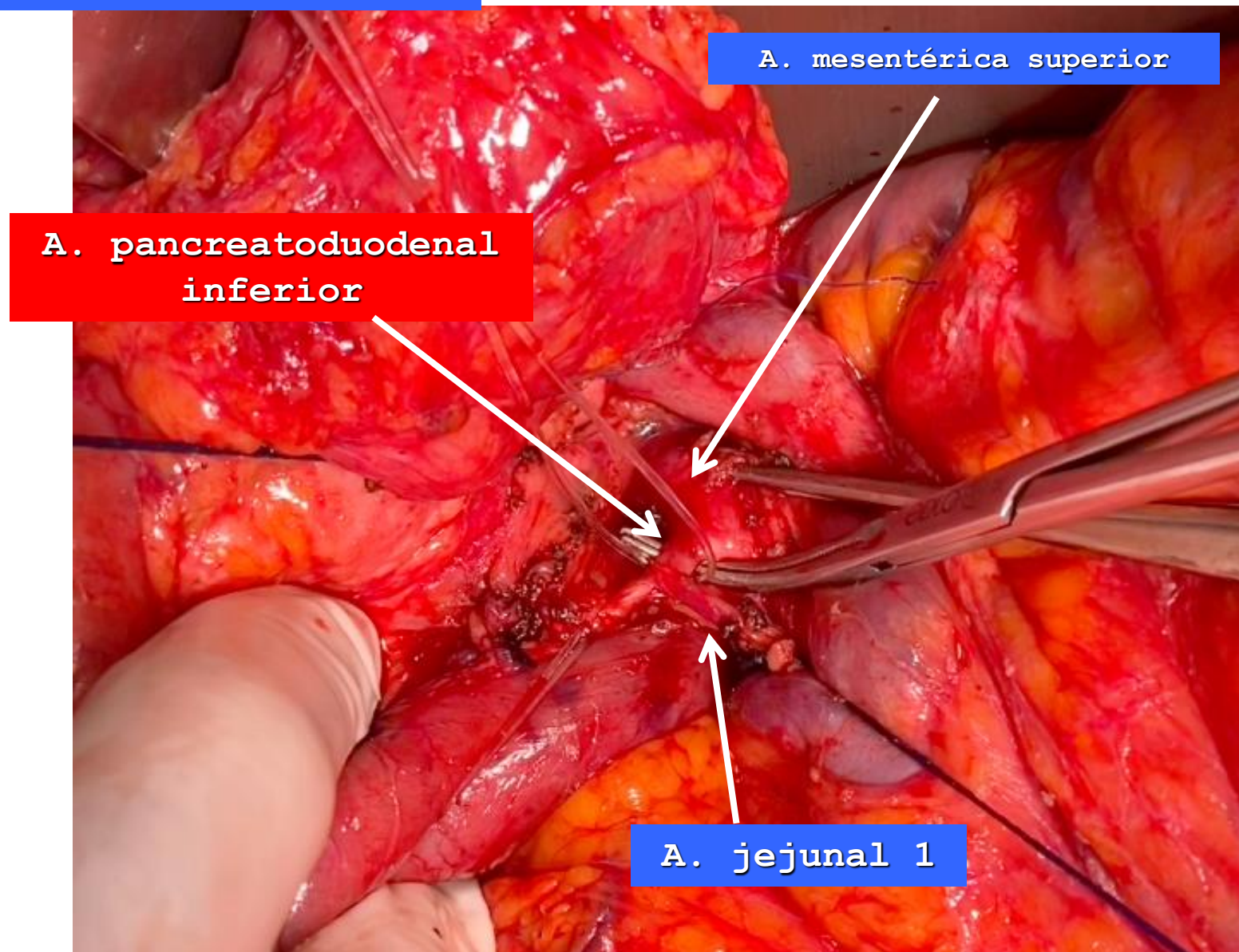


- ☒ Sangramento
- ☐ Fístula pancreática
- ☐ Gastroparesia
- ☐ Padrão oncológico

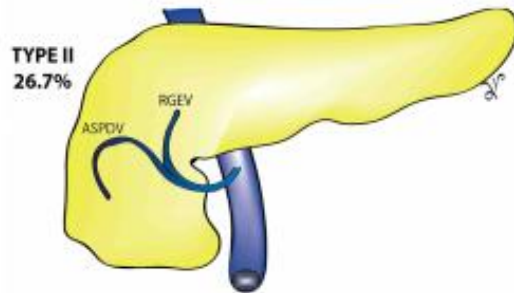
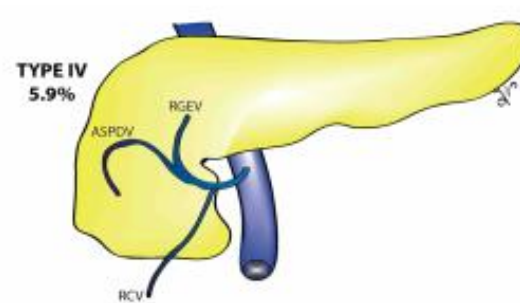
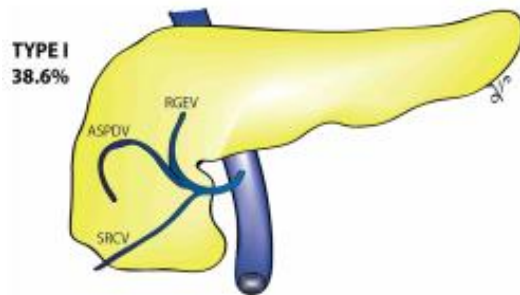
Ligadura da artéria gastroduodenal



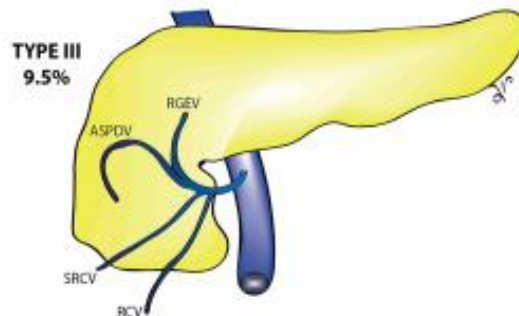
UNCINATE FIRST



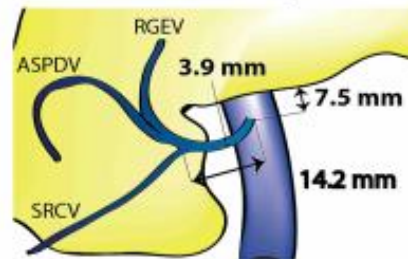
LIGADURA CENTRAL VENOSA



TYPE VI - all the others

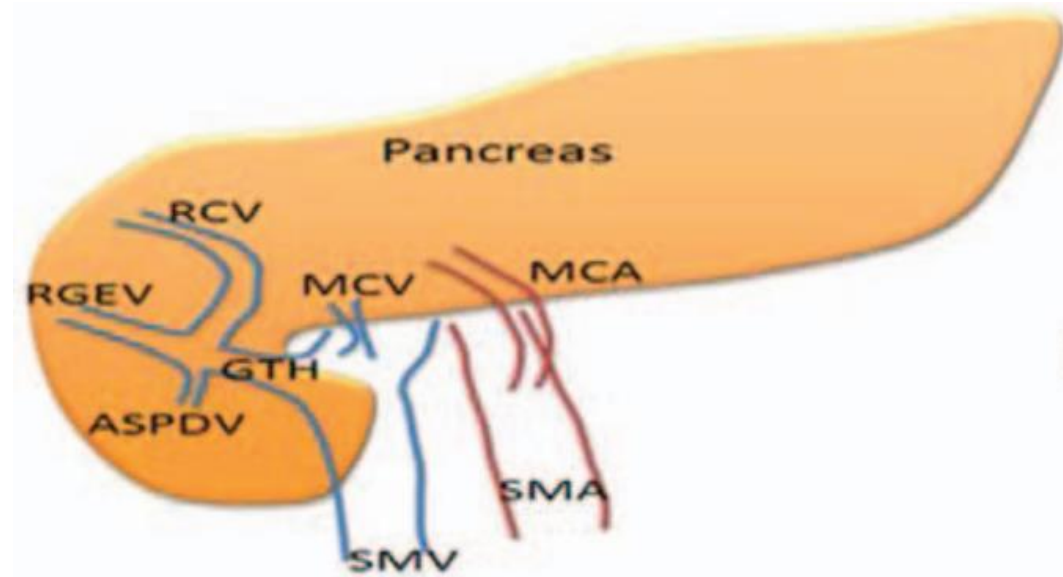
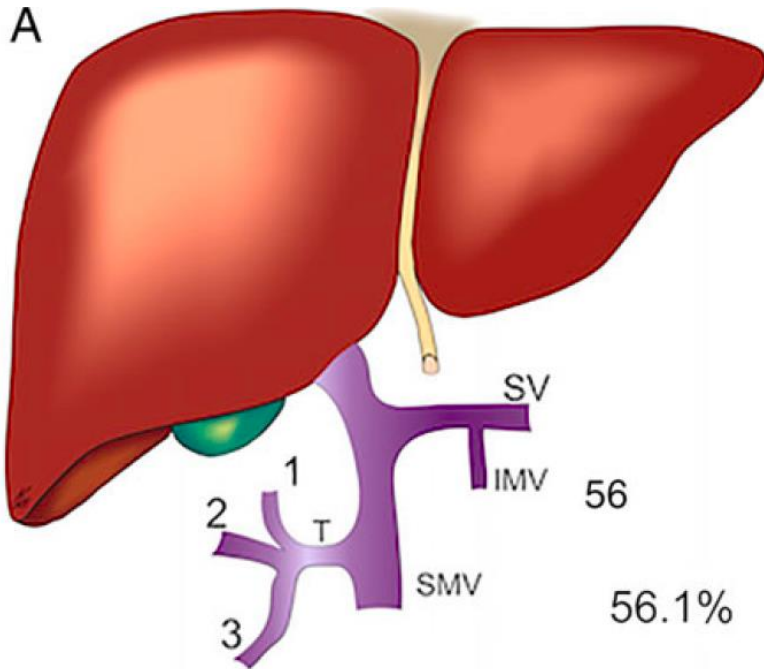


**Diameter, length,
distance from inferior border of the pancreas**



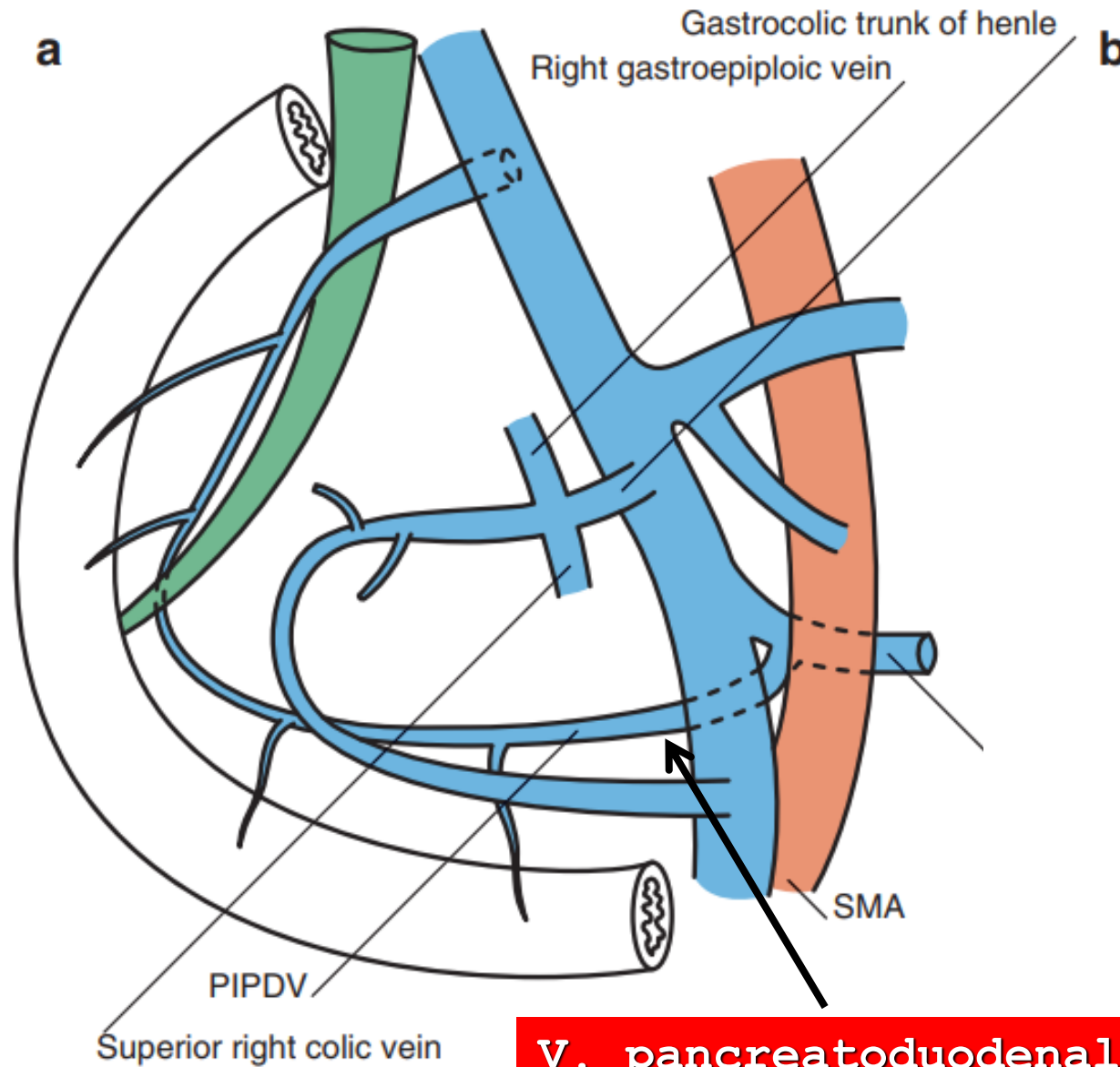
- ❑ TRONCO GASTROCÓLICO DE HENLE
- ❑ VEIA PANCREATODUODENAL INFERIOR

TRONCO GASTROCÓLICO DE HENLE



- ☐ VEIA GASTREPIPLÓICA DIREITA
- ☐ VEIA PANCREATODUODENAL ANTERO-SUPERIOR
- ☐ VEIA CÓLICA DIREITA SUPERIOR (Ligada de rotina)

VEIA PANCREATODUODENAL INFERIOR



UNCINATE FIRST

Duodeno

Veia mesentérica superior

Deve ser cadarçada

Cabeça do pâncreas

☐ JV1 deve ser ligada

EXCISÃO TOTAL DO MESOPÂNCREAS

- ☐ Sangramento
- ☐ Fístula pancreática
- ☐ Gastroparesia
- ☒ Padrão oncológico

☐ MESOPÂNCREAS

- ☐ plPh-I
- ☐ plPh-II
- ☐ Artéria pancreatoduodenal inferior
- ☐ Artérias jejunais
- ☐ Veias jejunais
- ☐ Linfonodos

Gânglio celíaco D

Pl-ce

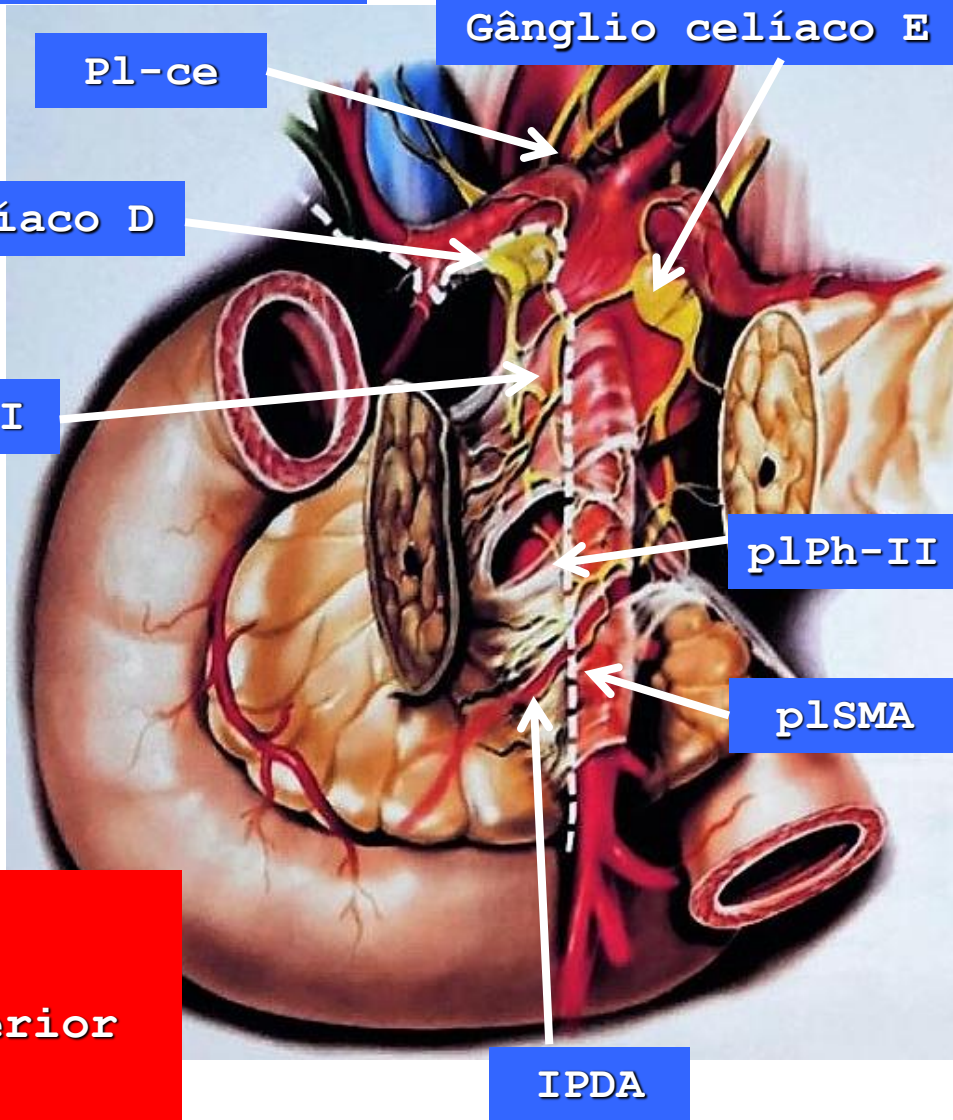
Gânglio celíaco E

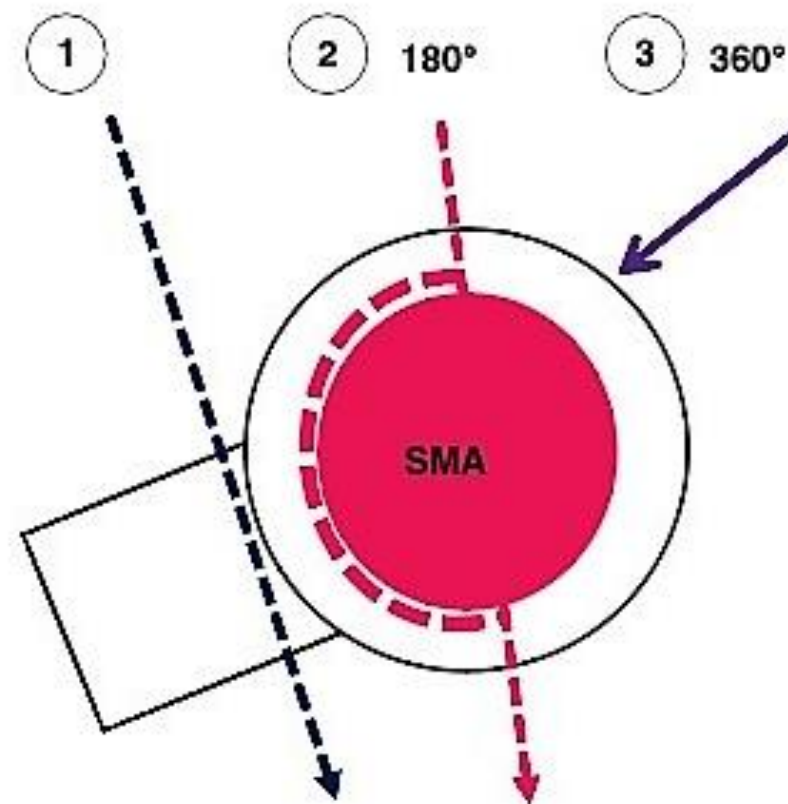
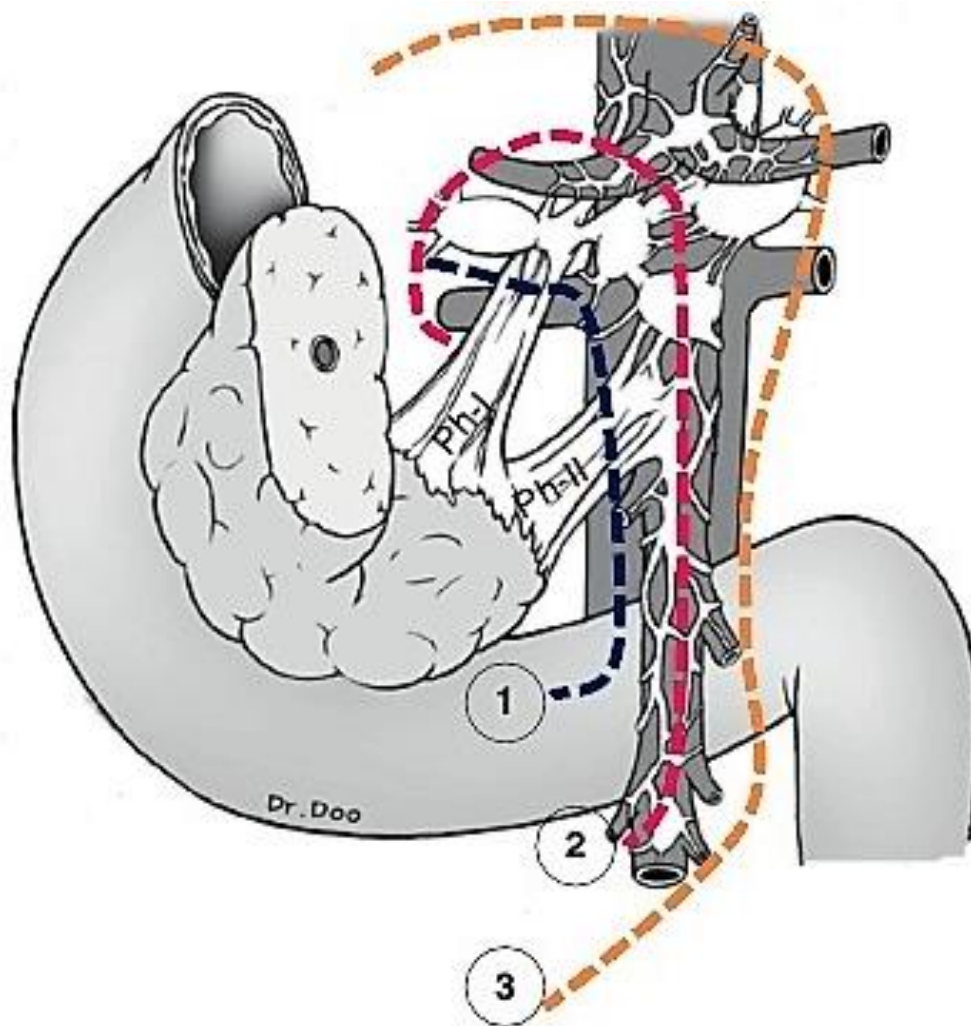
plPh-I

plPh-II

plSMA

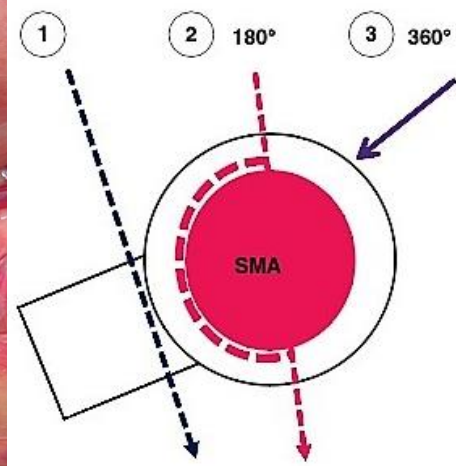
IPDA



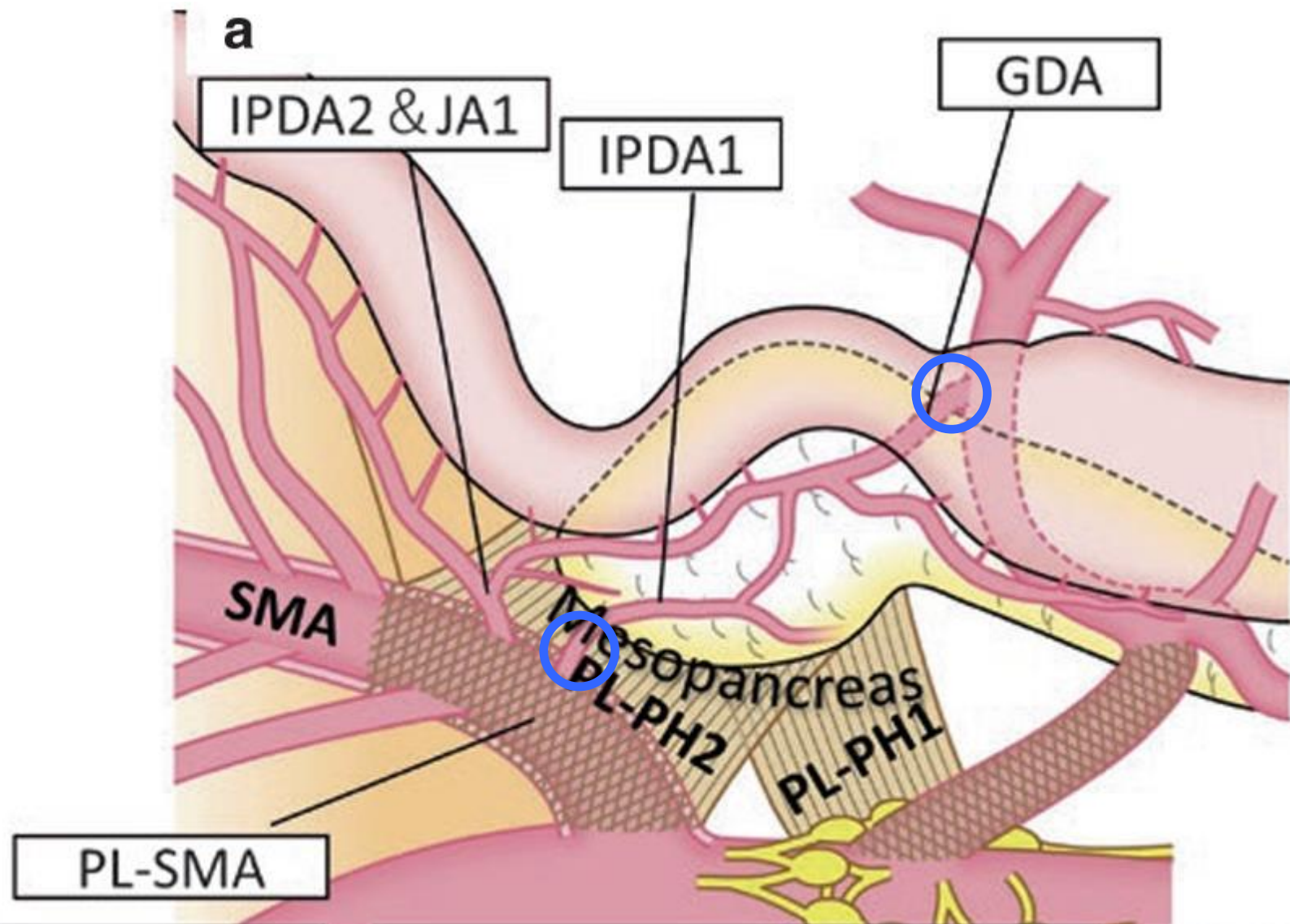


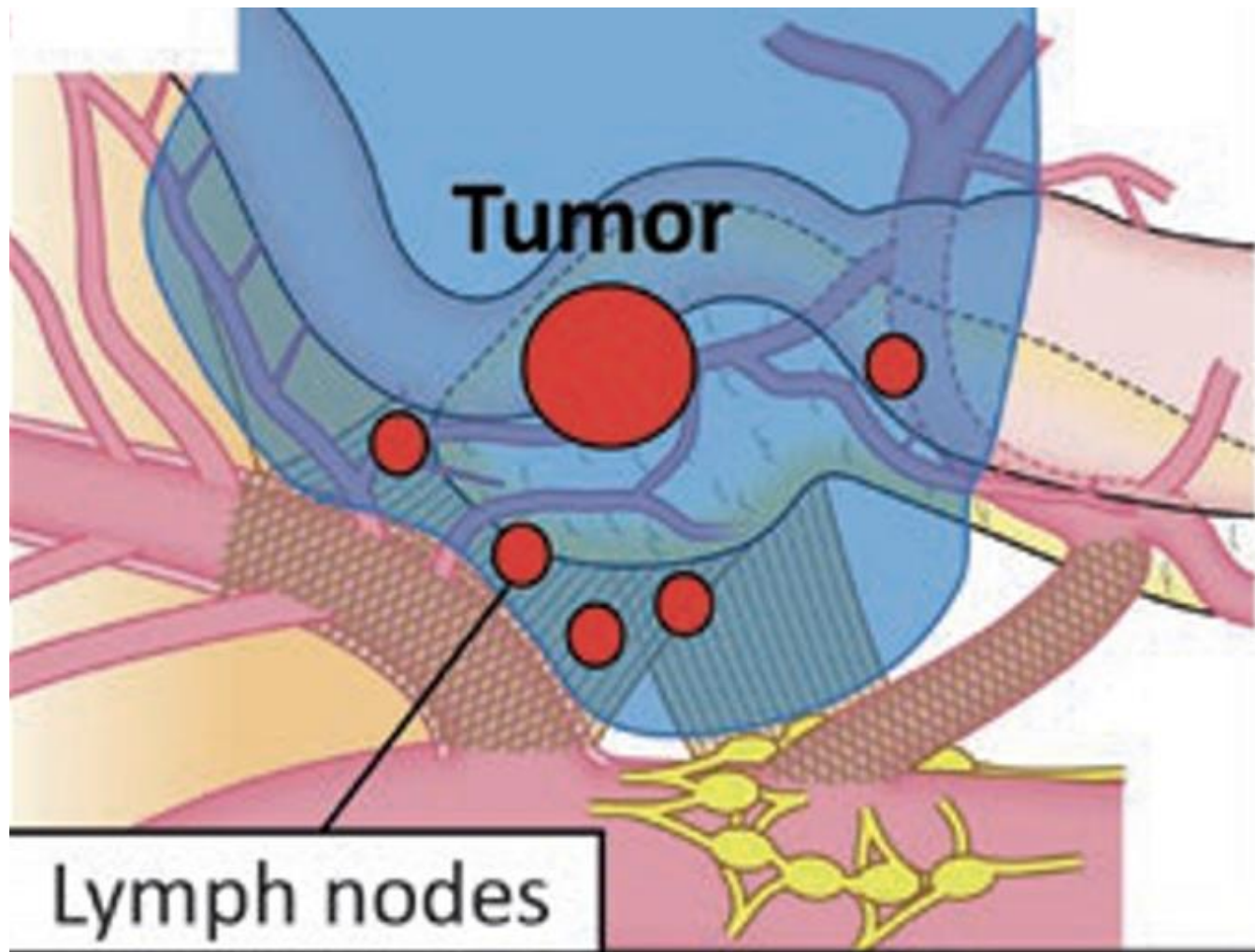
❑ Margem direita da art. mesentérica sup.

Artéria mesentérica superior

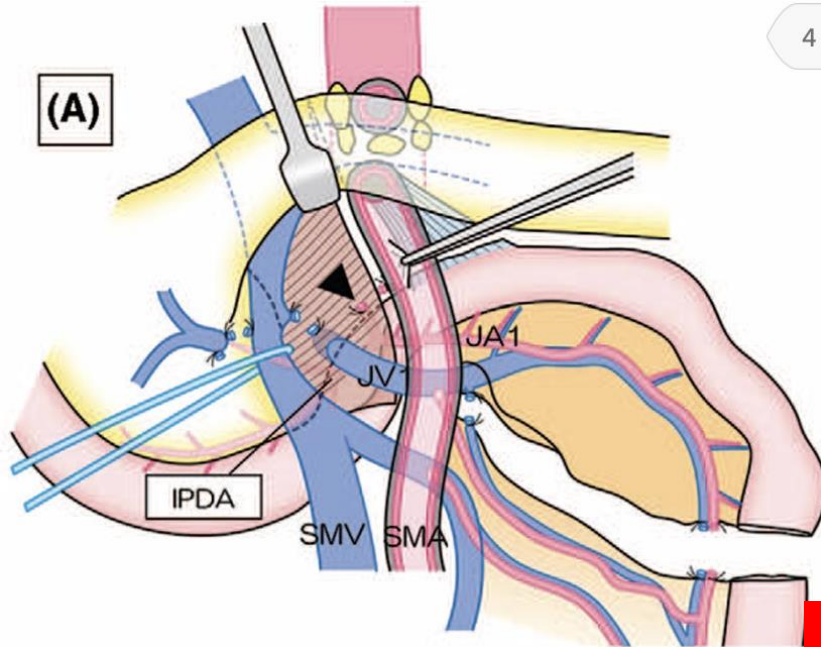


Margem direita
(05:00h - 11:00h)

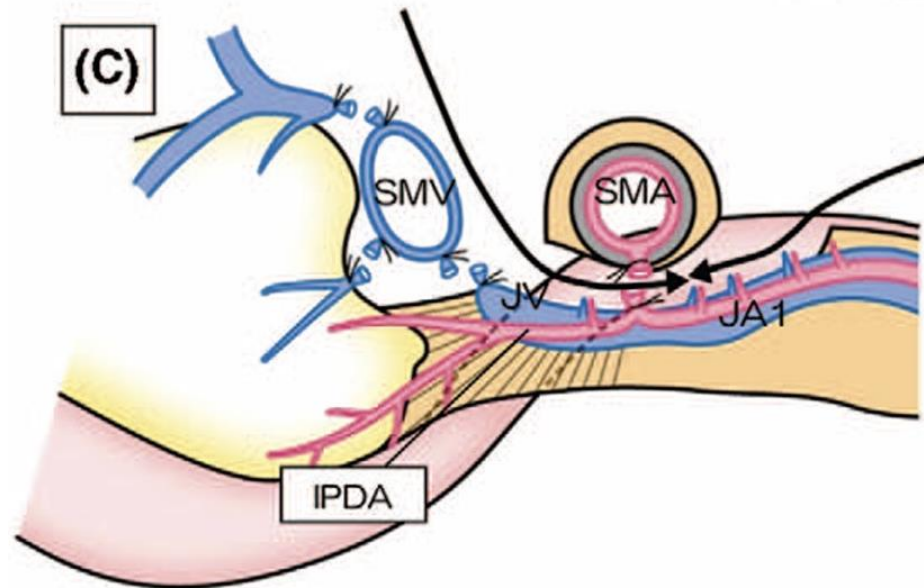




(A)

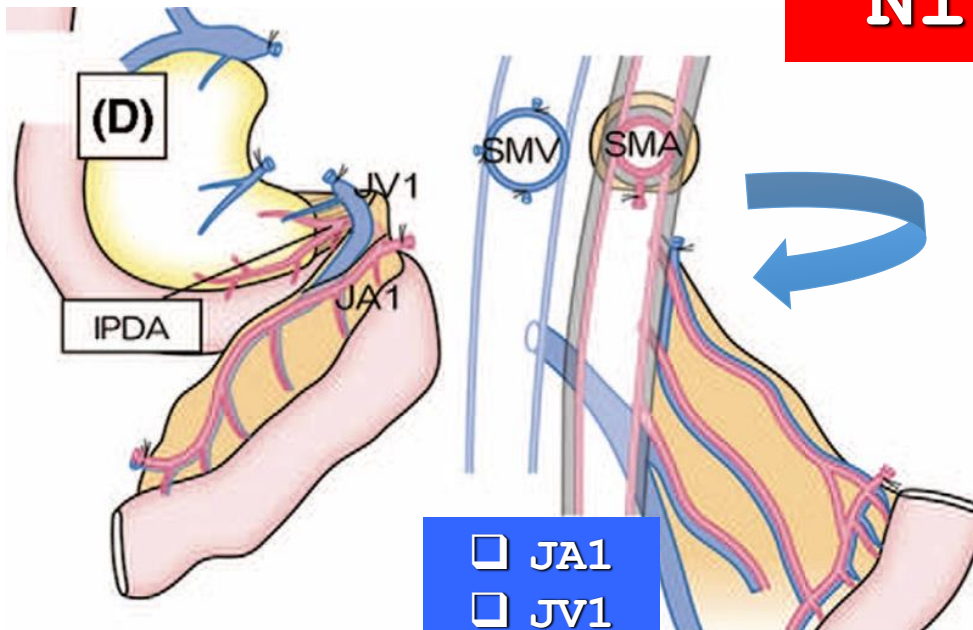


(C)



Nível 2

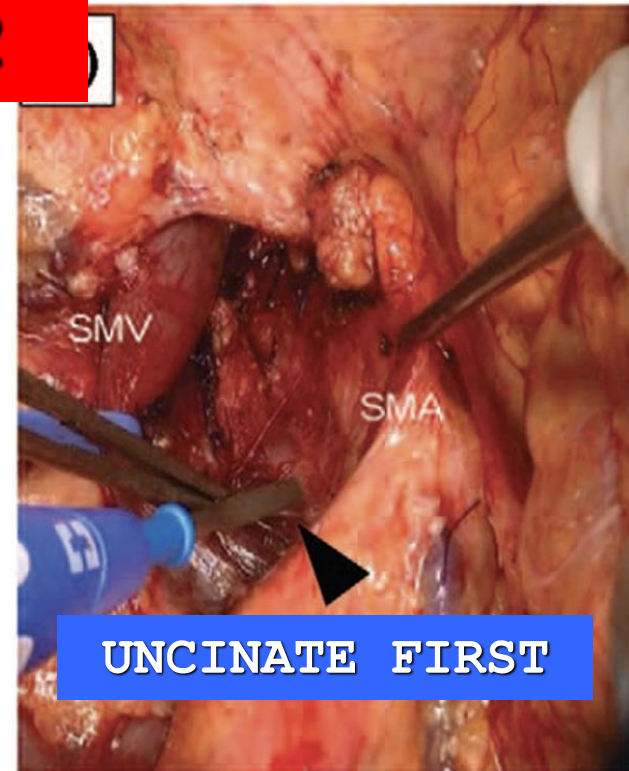
(D)



□ JA1

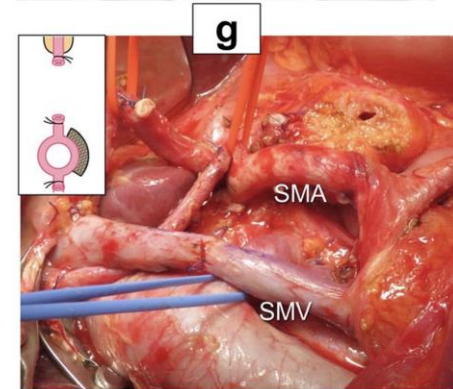
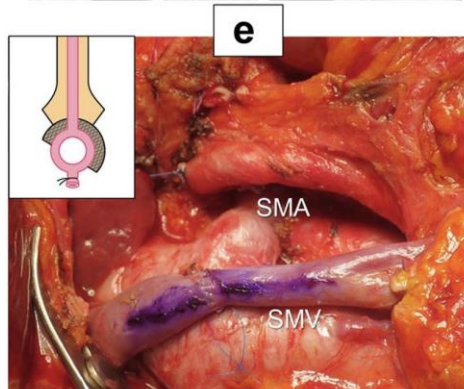
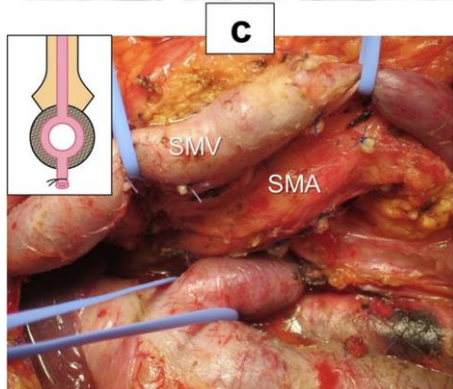
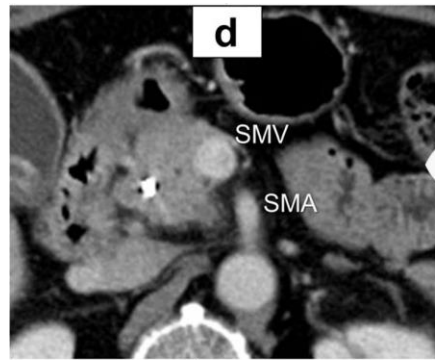
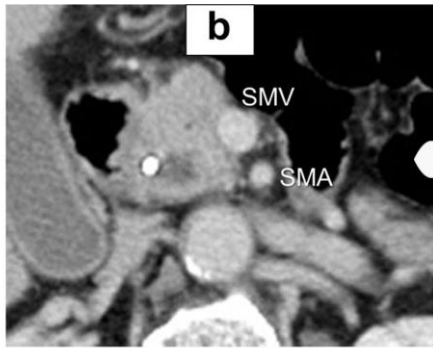
□ JV1

Inoue Y, et al. 2016

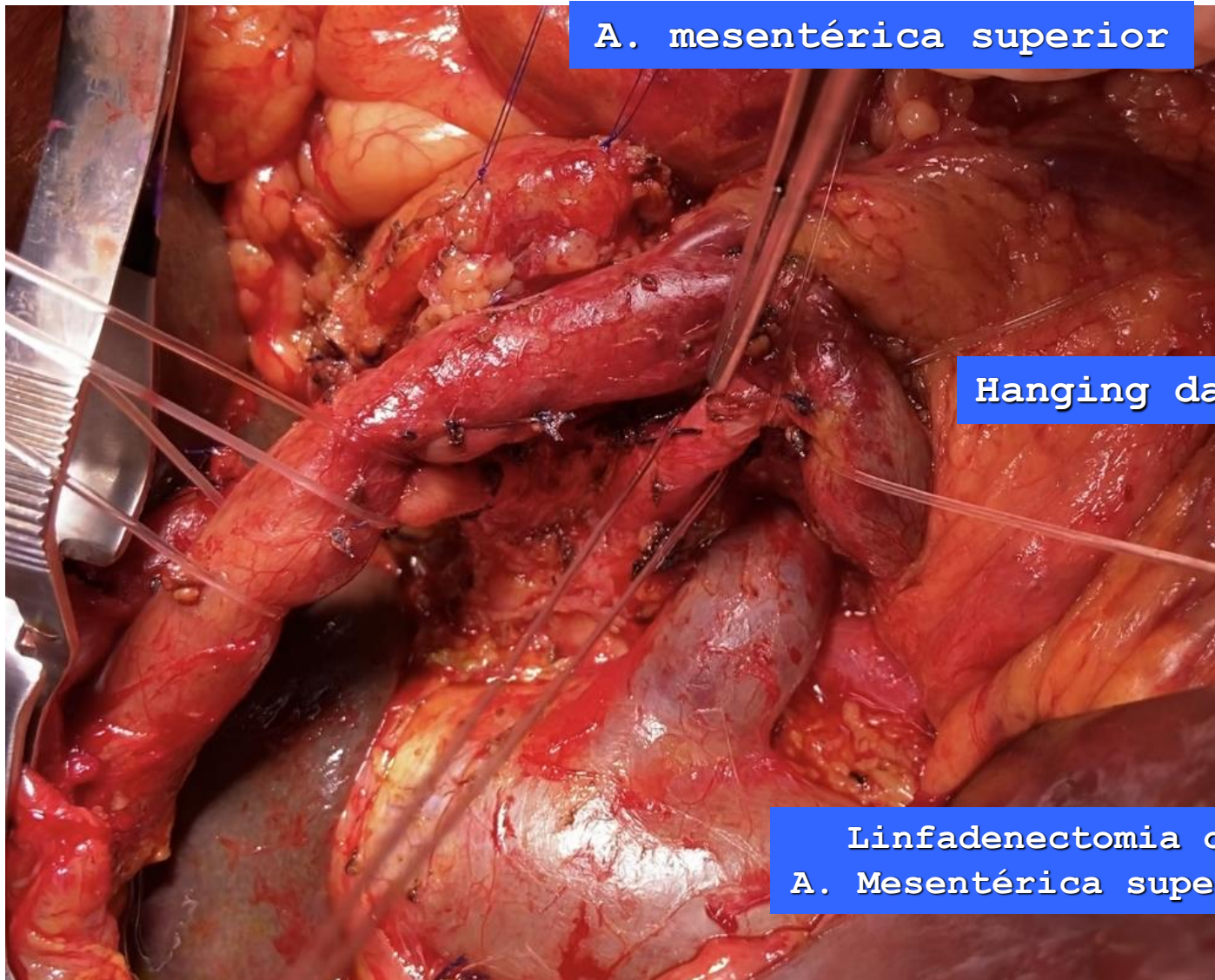


UNCINATE FIRST

Diagram (a) illustrates the anatomical structures of the female reproductive system. The diagram shows a cross-section of the ovary (labeled 'a') and the fallopian tube (labeled 'b'). The ovary is depicted as a yellow, textured structure with a central red, star-shaped area. The fallopian tube is shown as a blue, elongated structure. The uterus is shown as a pink, muscular structure. Various anatomical features are labeled with letters and numbers, including the ovary (a), fallopian tube (b), uterus (c), and various blood vessels and ligaments (d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z).



MESOPÂNCREAS

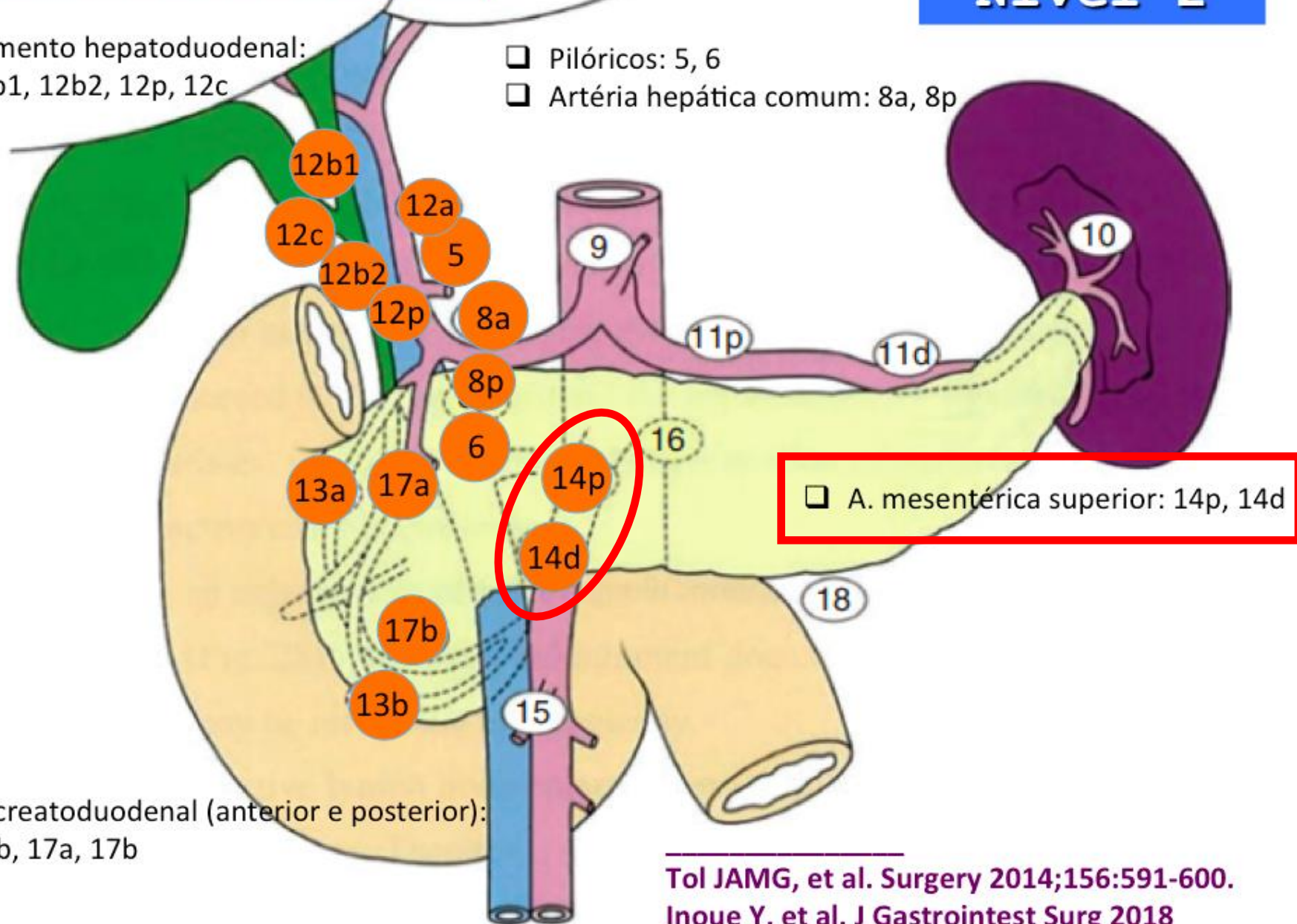


Linfadenectomia

Nível 2

❑ Ligamento hepatoduodenal:
12a, 12b1, 12b2, 12p, 12c

❑ Pilóricos: 5, 6
❑ Artéria hepática comum: 8a, 8p



❑ Pancreatoduodenal (anterior e posterior):
13a, 13b, 17a, 17b

Tol JAMG, et al. Surgery 2014;156:591-600.
Inoue Y, et al. J Gastrointest Surg 2018

HEIDELBERG

Markus Buchler

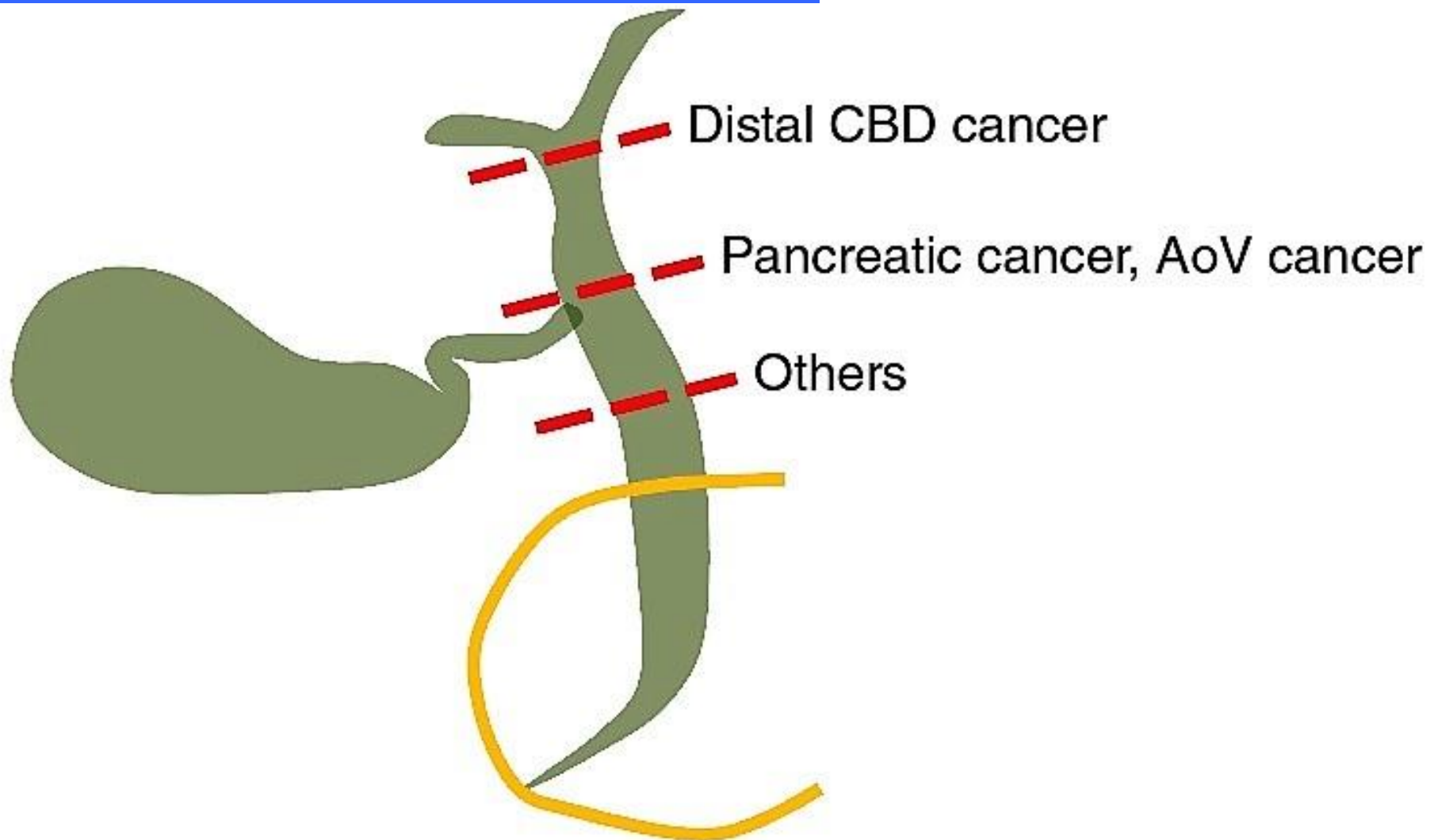


LINFADENECTOMIA

- ☐ Sangramento
- ☐ Fístula pancreática
- ☐ Gastroparesia
- ☒ Padrão oncológico

Ligamento
hepatoduodenal

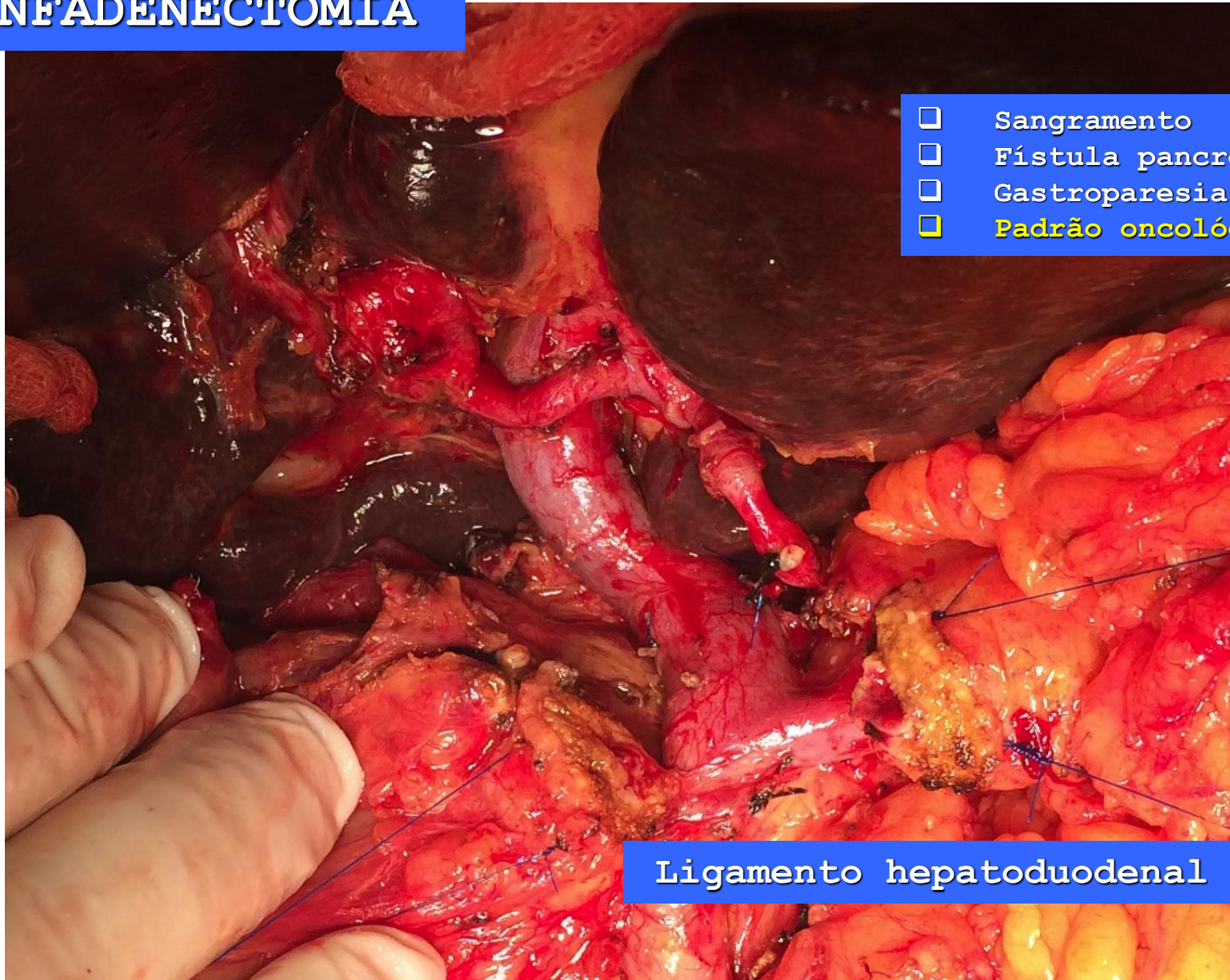
Ressecção da via biliar



- Acima da saída do ducto cístico
- < 2cm da bifurcação

LINFADENECTOMIA

- ☐ Sangramento
- ☐ Fístula pancreática
- ☐ Gastroparesia
- ☒ Padrão oncológico



Ligamento hepatoduodenal

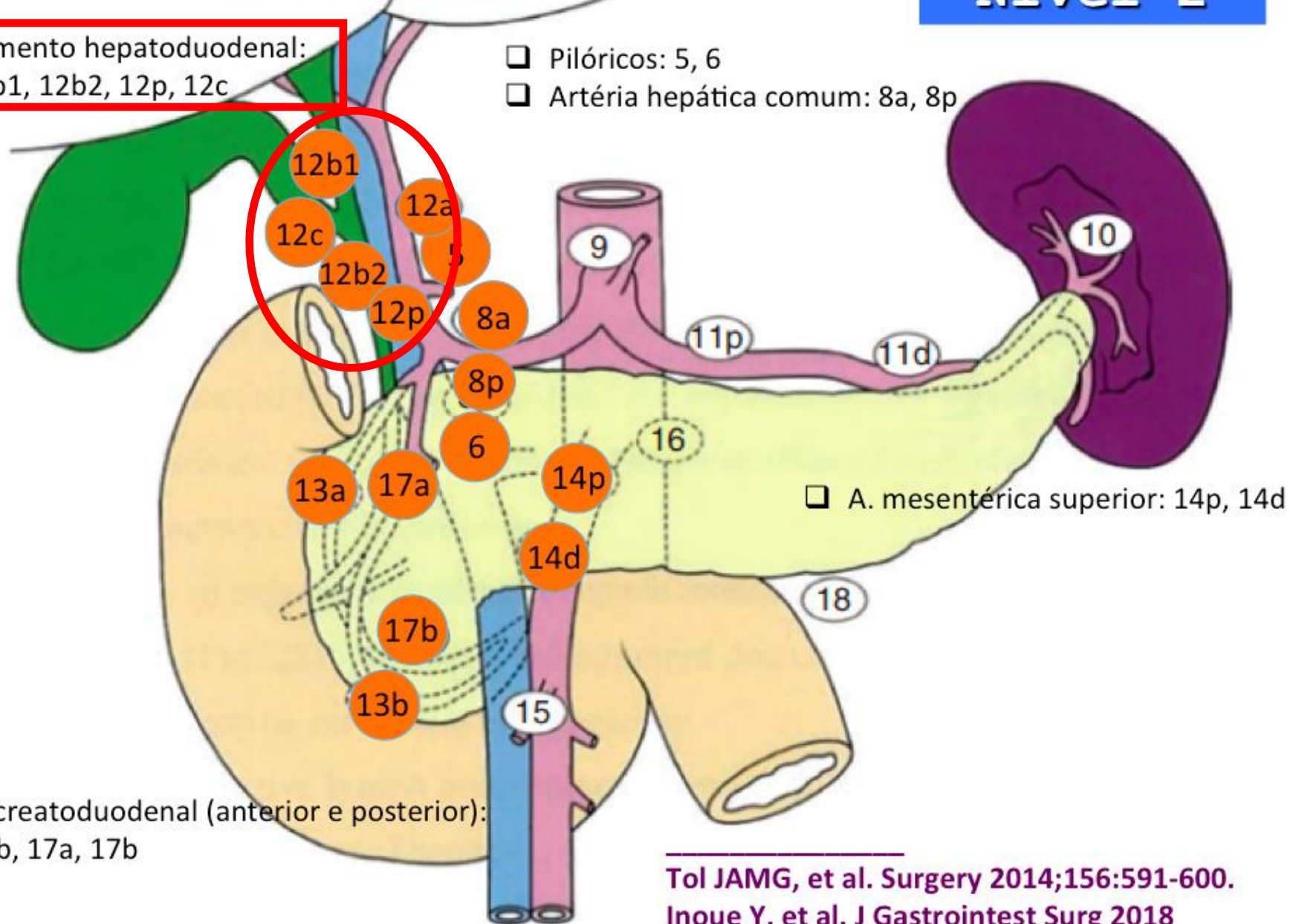
Linfadenectomia

Nível 2

❑ Ligamento hepatoduodenal:
12a, 12b1, 12b2, 12c

❑ Pilóricos: 5, 6

❑ Artéria hepática comum: 8a, 8p

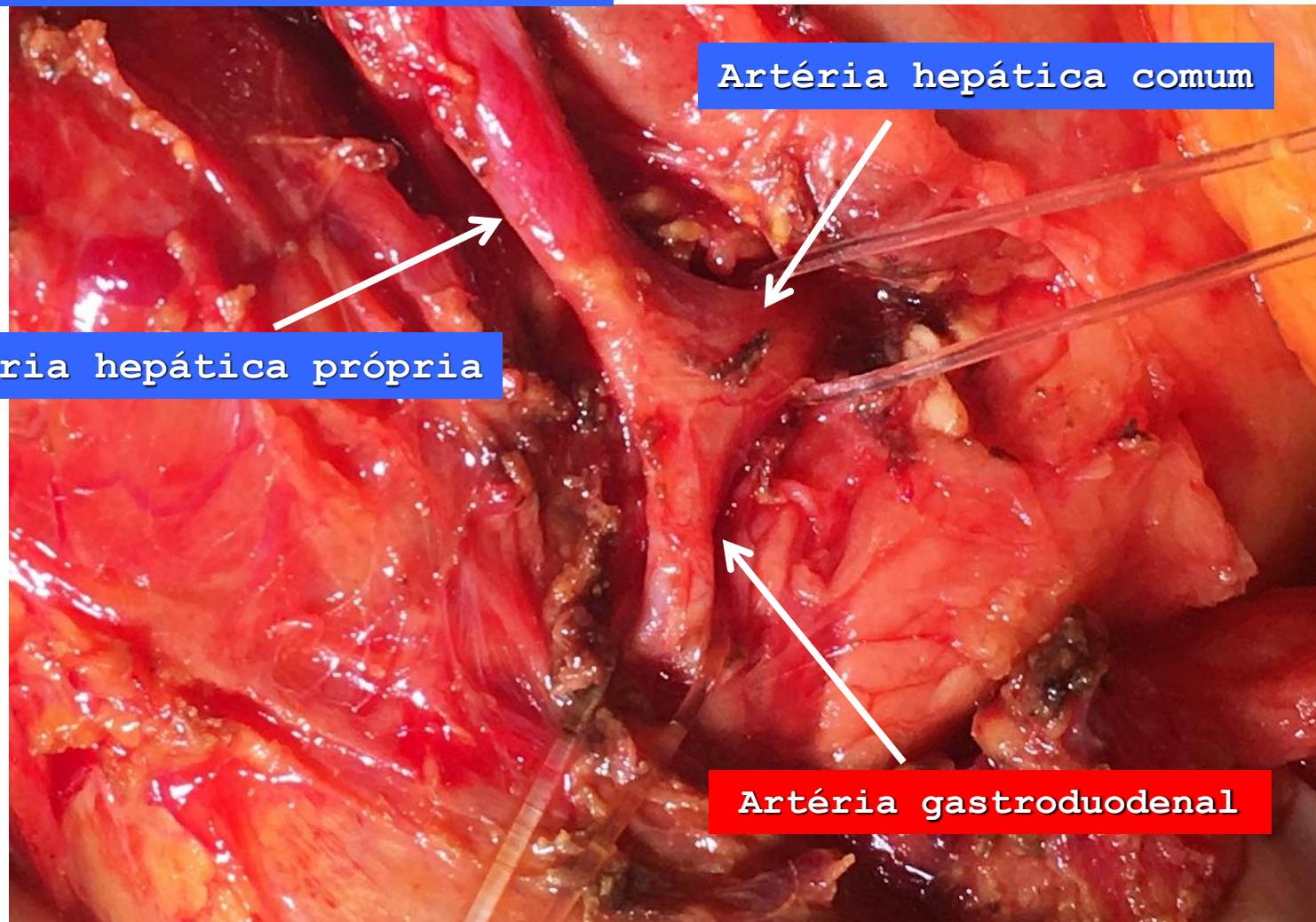


❑ A. mesentérica superior: 14p, 14d

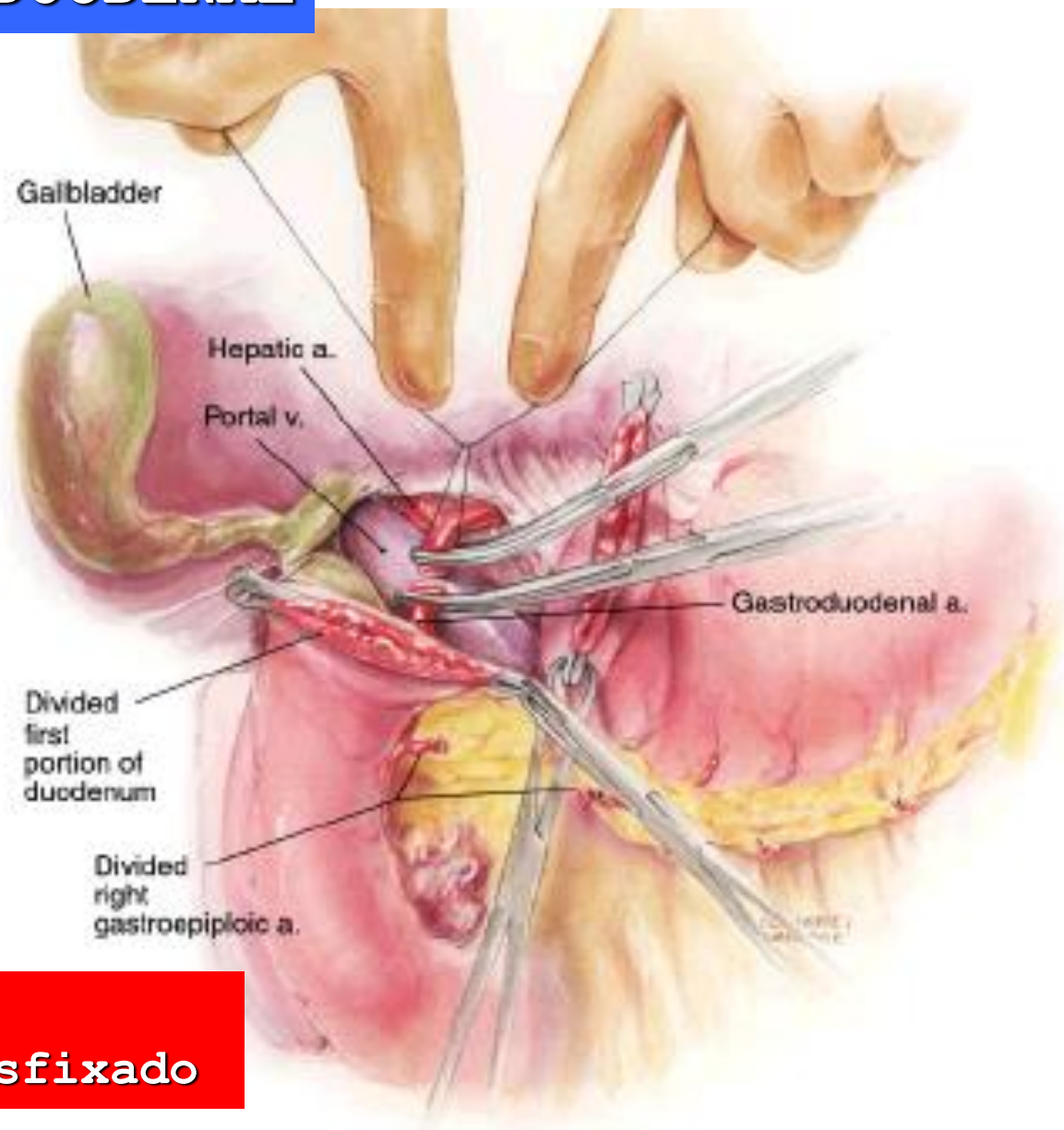
❑ Pancreatoduodenal (anterior e posterior):
13a, 13b, 17a, 17b

Tol JAMG, et al. Surgery 2014;156:591-600.
Inoue Y, et al. J Gastrointest Surg 2018

LIGADURA DA ARTÉRIA GASTRODUODENAL



ARTÉRIA GASTRODUODENAL



☒ Sangramento

☐ Fístula pancreática

☐ Gastroparesia

☐ Padrão oncológico

☐ Dupla

☐ Prolene 4.0 transfixado

Via biliar

A. hepática direita

A. gastroduodenal

A. hepática própria

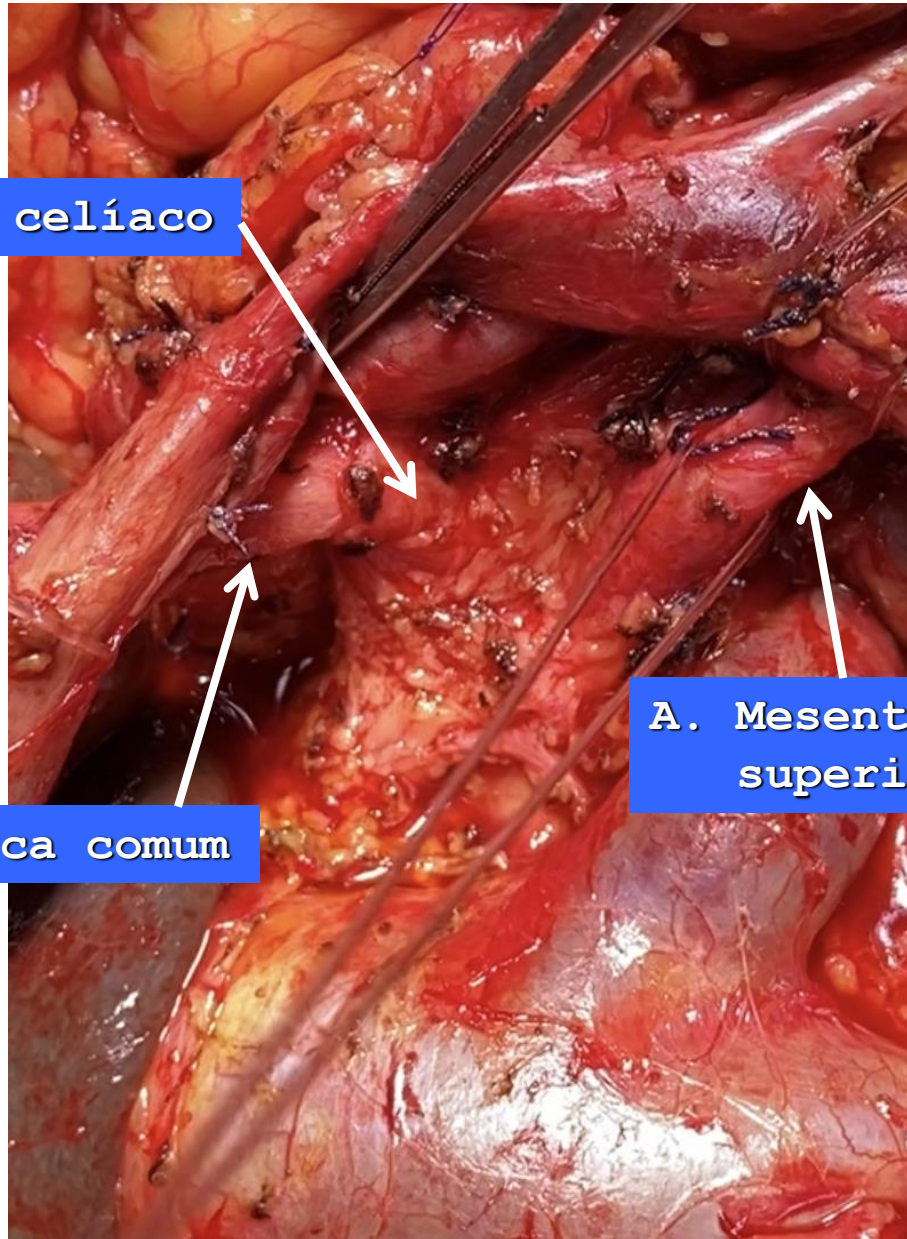
Veia porta

A. hepática comum

Tronco celíaco

A. hepática comum

A. Mesentérica superior



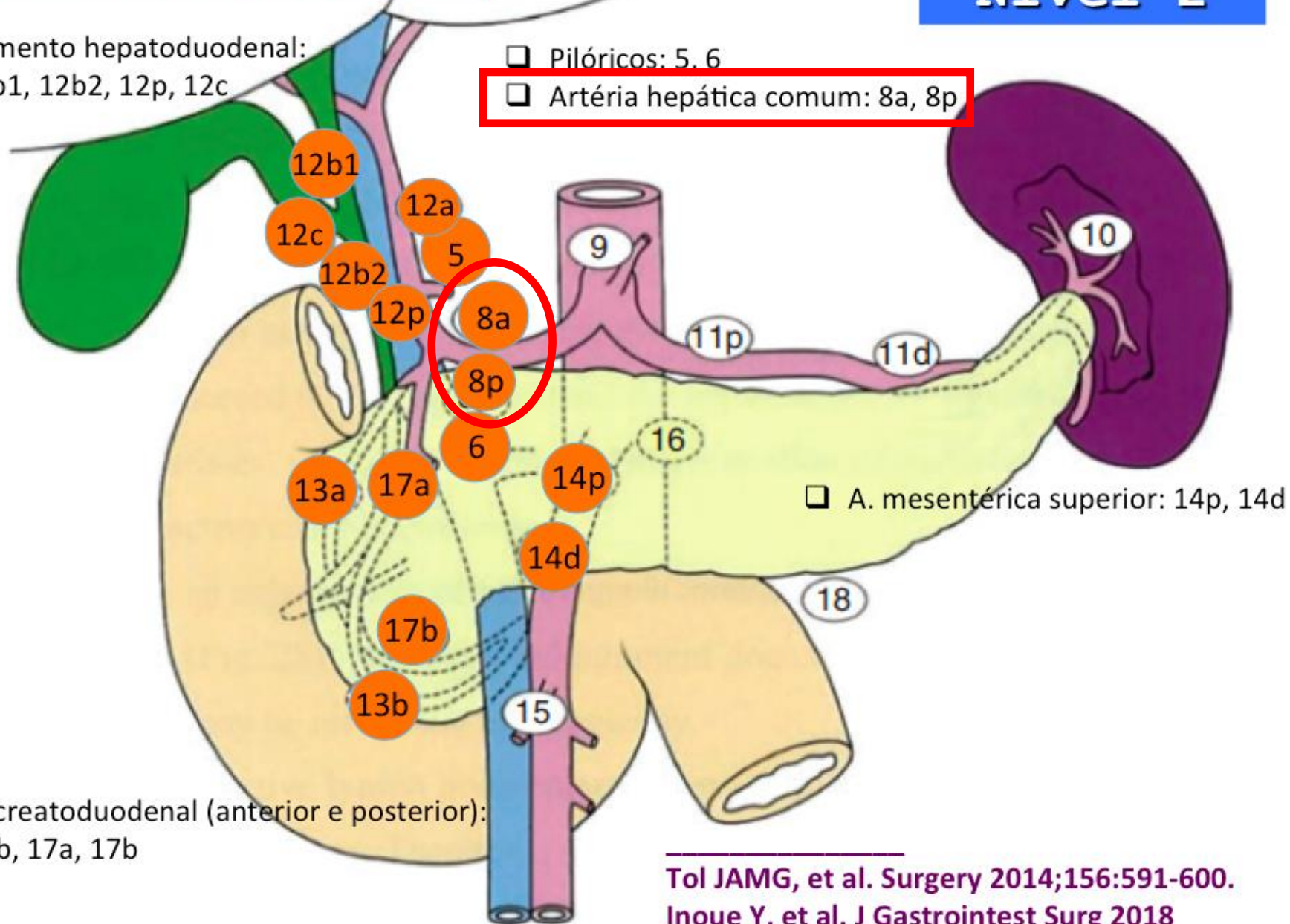
Linfadenectomia

Nível 2

❑ Ligamento hepatoduodenal:
12a, 12b1, 12b2, 12p, 12c

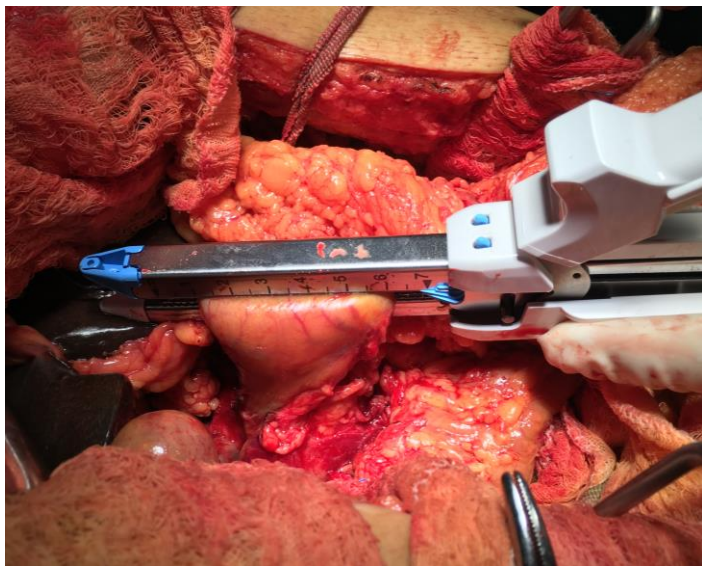
❑ Pilóricos: 5, 6

❑ Artéria hepática comum: 8a, 8p



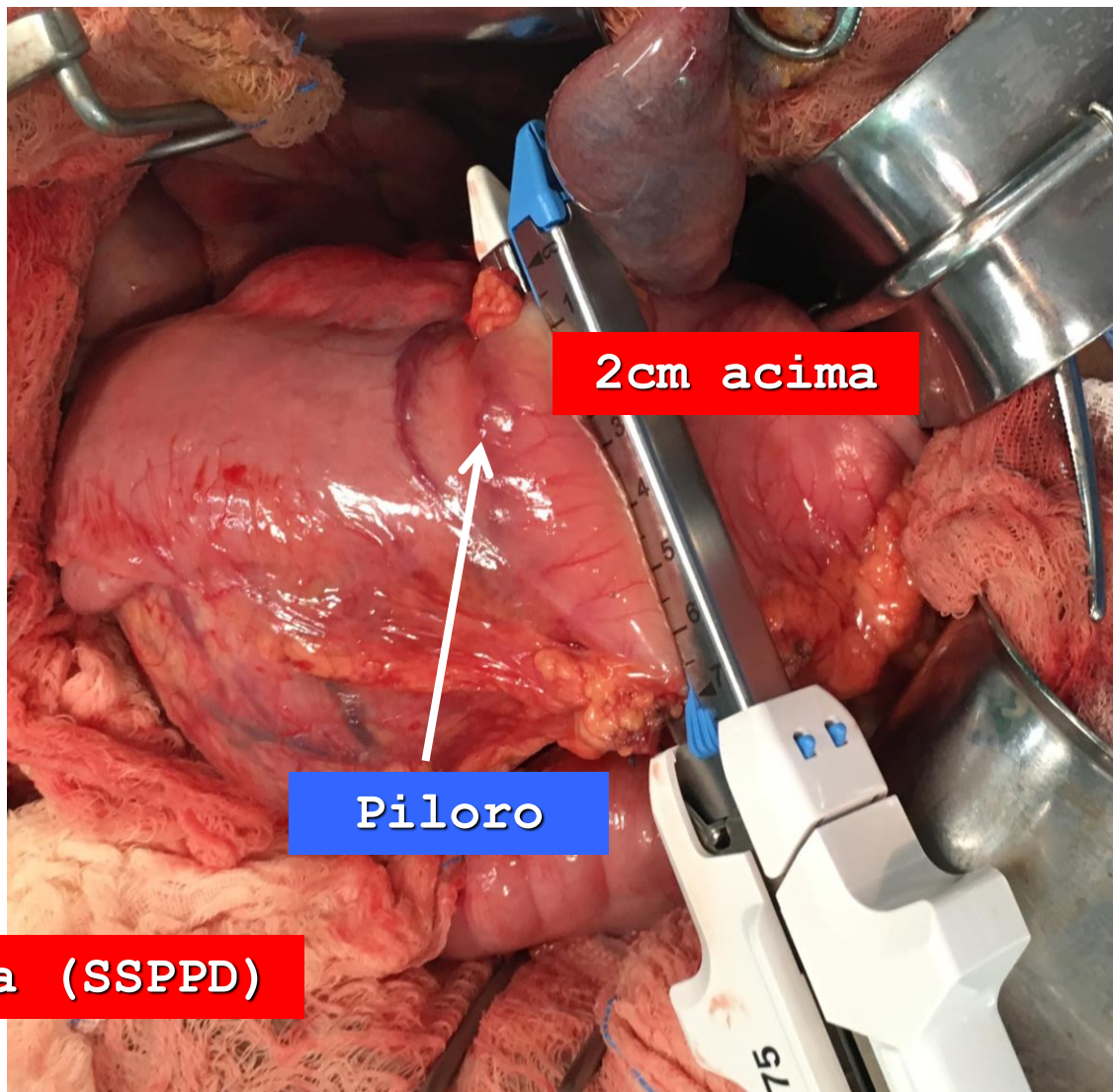
Tol JAMG, et al. Surgery 2014;156:591-600.
Inoue Y, et al. J Gastrointest Surg 2018

Transecção do estômago

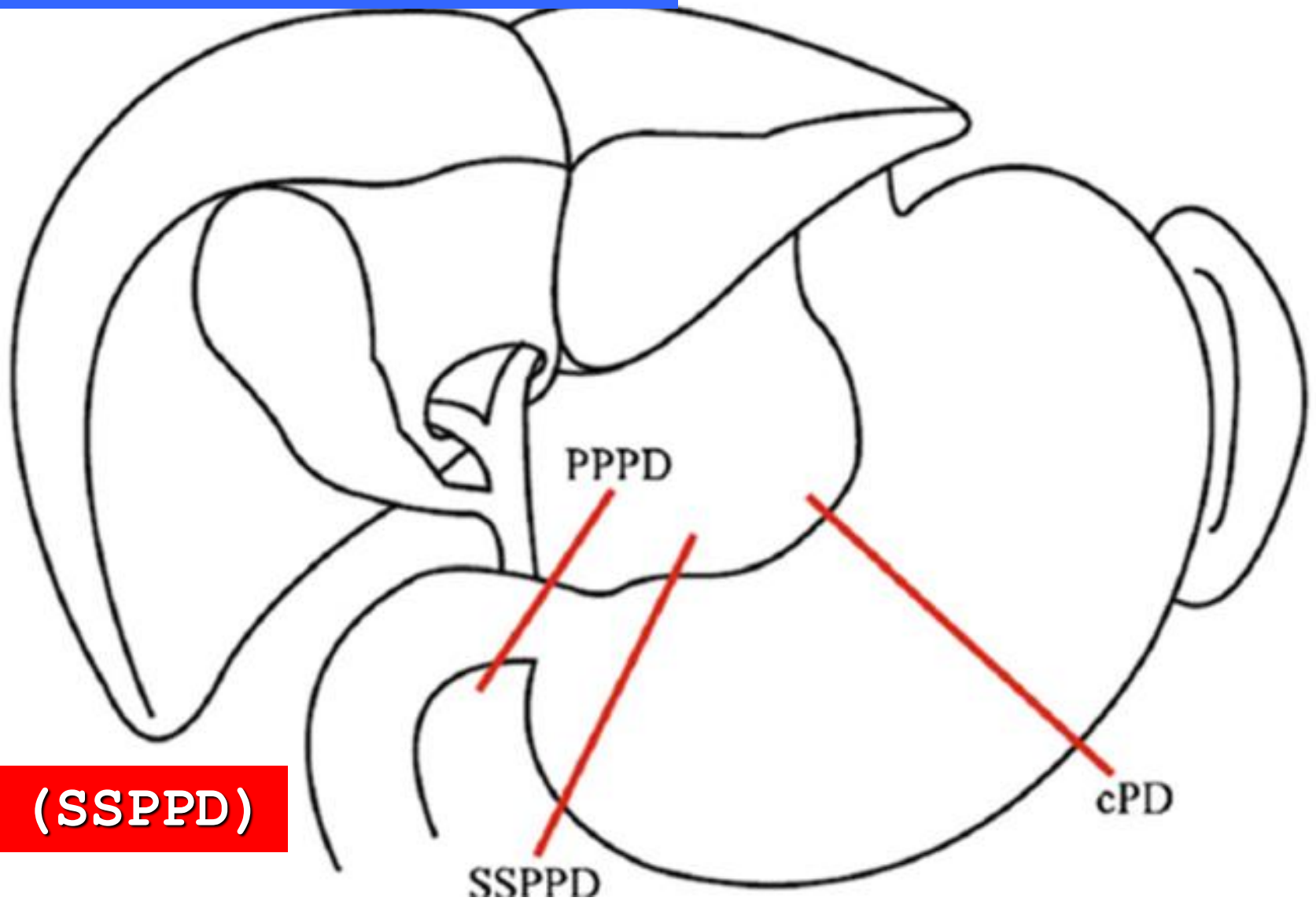


- ☐ Sangramento
- ☐ Fístula pancreática
- ☒ **Gastroparesia**
- ☐ Padrão oncológico

☒ Preservação gástrica (SSPPD)



Transecção do estômago



□ (SSPPD)

PANCREATODUODENECTOMY: BRAZILIAN PRACTICE PATTERNS*

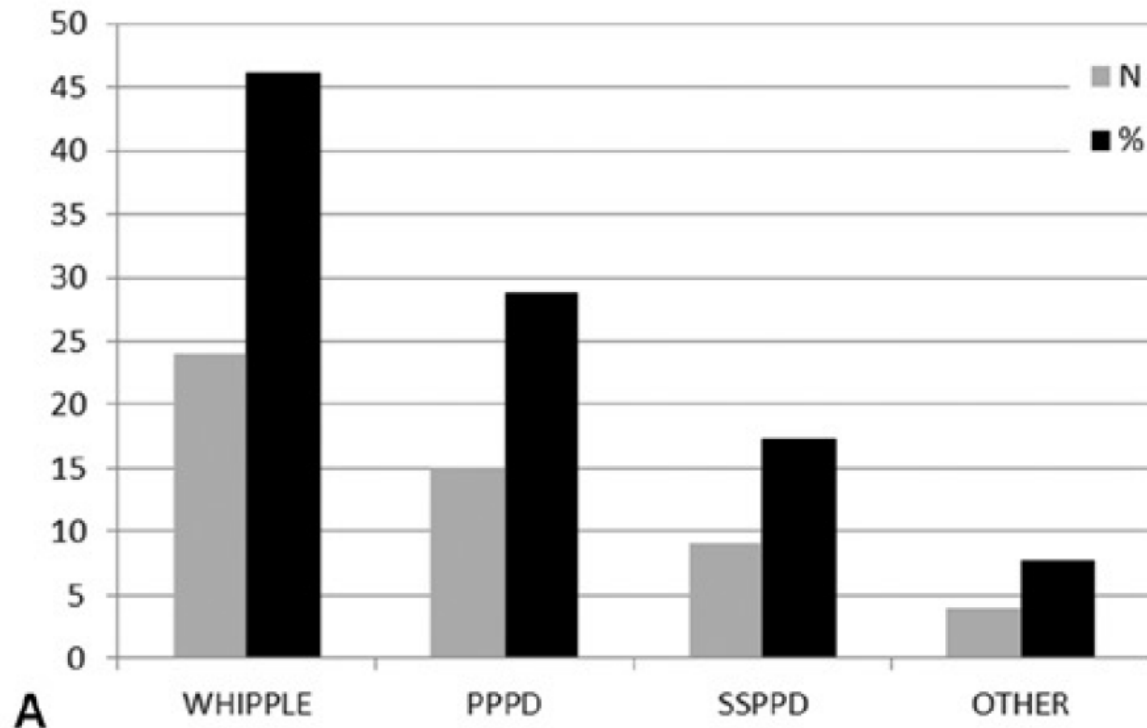
*Duodenopancreatectomia: prática padrão do Brasil**

Orlando Jorge M **TORRES**¹, Eduardo de Souza M **FERNANDES**², Rodrigo Rodrigues **VASQUES**¹, Fabio Luís **WAECHTER**³,
Paulo Cezar G. **AMARAL**⁴, Marcelo Bruno de **REZENDE**⁵, Roland Montenegro **COSTA**⁶, André Luís **MONTAGNINI**⁷

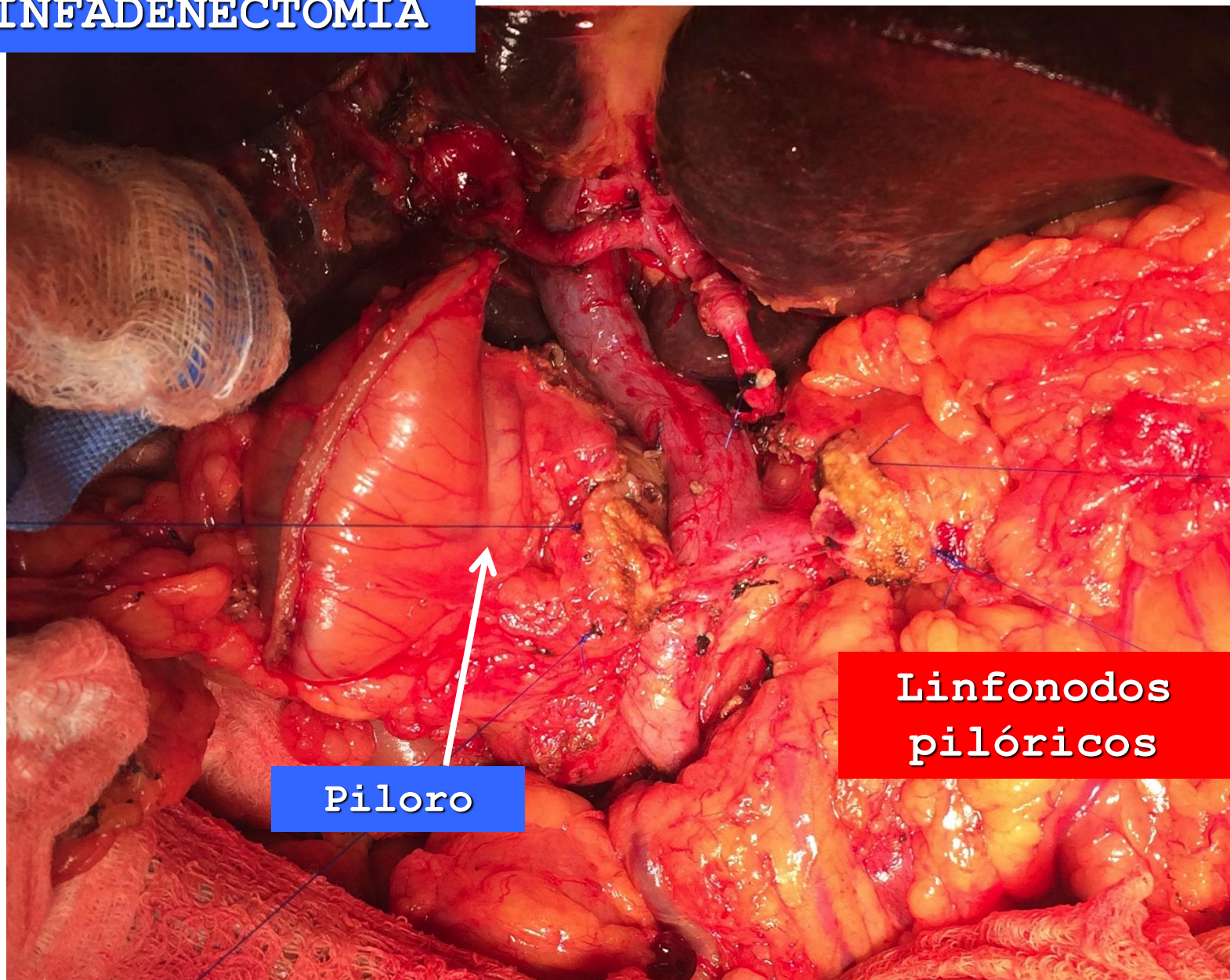
From the ¹Departamento de Cirurgia, Universidade Federal do Maranhão, São Luís, MA; ²Universidade Federal do Rio de Janeiro, Rio de Janeiro, RJ; ³Santa Casa de Misericórdia de Porto Alegre, Porto Alegre, RS; ⁴Hospital São Rafael, Salvador, BA; ⁵Hospital Santa Marcelina, São Paulo, SP; ⁶Hospital Santa Lucia,

ABSTRACT - Background: Pancreatoduodenectomy is a technically challenging surgical procedure with an incidence of postoperative complications ranging from 30% to 61%. The procedure requires a high level of experience, and to minimize surgery-related complications and mortality, a high-quality standard surgery is imperative. **Aim:** To understand the Brazilian practice patterns for pancreatoduodenectomy. **Method:** A questionnaire was designed

RESSECÇÃO



LINFADENECTOMIA



Piloro

Linfonodos
pilóricos

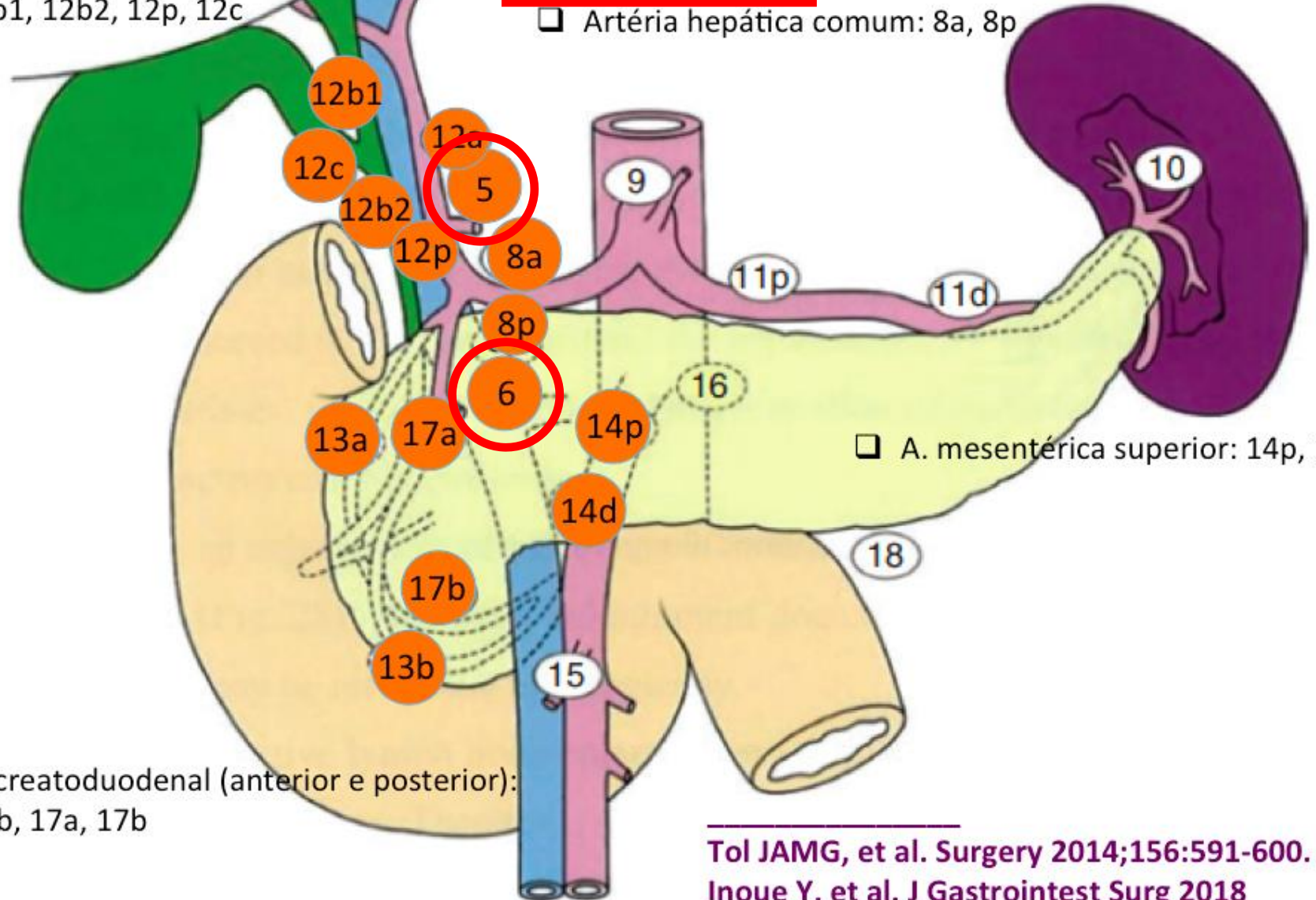
Linfadenectomia

Nível 2

❑ Ligamento hepatoduodenal:
12a, 12b1, 12b2, 12p, 12c

❑ Pilóricos: 5, 6

❑ Artéria hepática comum: 8a, 8p



❑ A. mesentérica superior: 14p, 14d

❑ Pancreatoduodenal (anterior e posterior):
13a, 13b, 17a, 17b

Tol JAMG, et al. Surgery 2014;156:591-600.
Inoue Y, et al. J Gastrointest Surg 2018

THE OBITUARY OF THE PYLORUS-PRESERVING PANCREATODUODENECTOMY

O obituário da duodenopancreatectomia com preservação pilórica

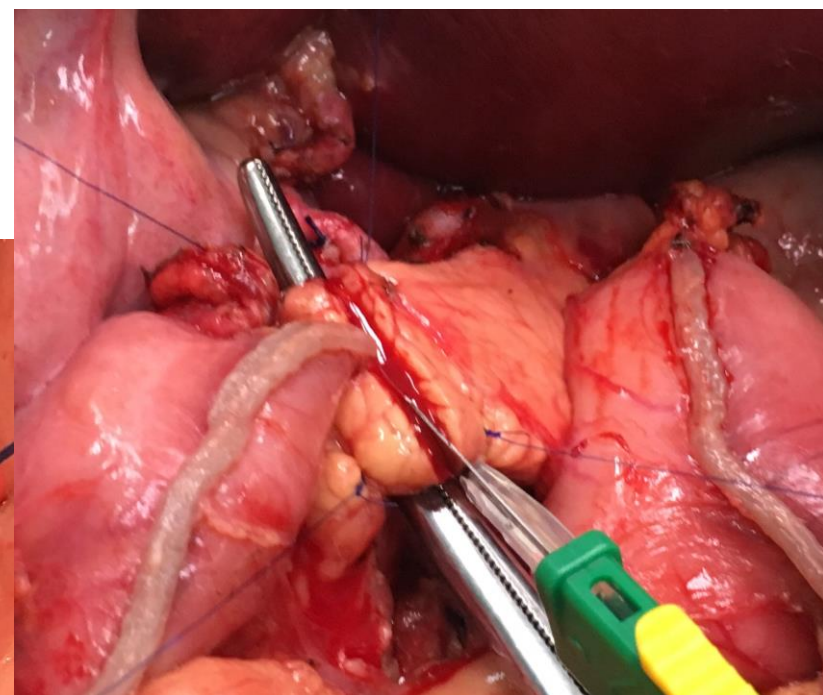
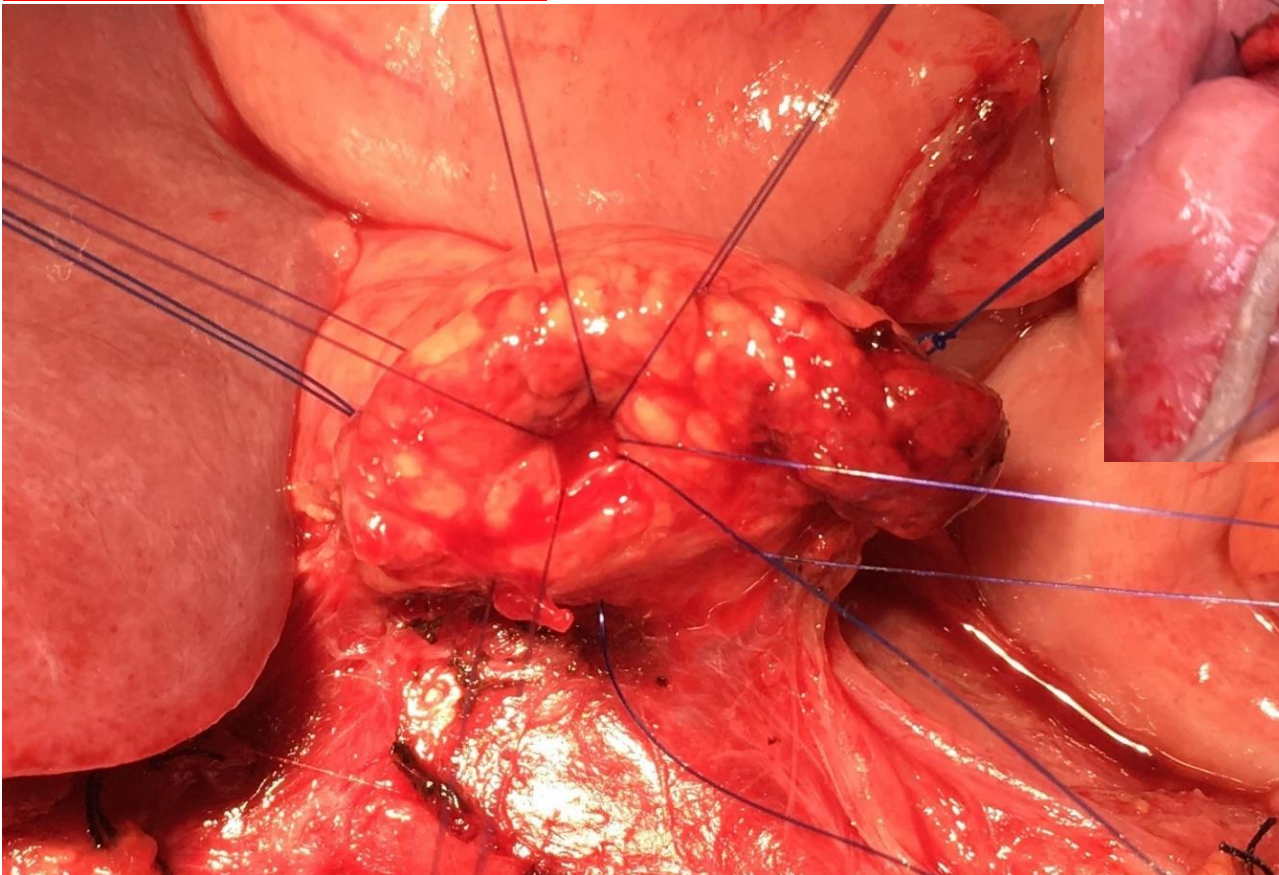
Orlando Jorge Martins TORRES, Rodrigo Rodrigues VASQUES, Camila Cristina S. TORRES
From the Department of Surgery, Federal University of Maranhão, São Luiz, MA, Brazil

Pancreatoduodenectomy is the treatment of choice for patients with benign and malignant disease of pancreatic head. Classic pancreatoduodenectomy was described by Whipple originally and included distal hemigastrectomy. Pylorus-preserving pancreatoduodenectomy (pylorus-preserving) was popularized in the late 1970s for benign disease and it included full preservation of the pylorus. However, delayed gastric emptying after pylorus-preserving is a frustrating complication. Its incidence varying from 19% to 61% in previous series and it results in discomfort, prolonged length of stay and increases the risk of respiratory complications. Delayed gastric emptying contributes to increased hospital costs and decreased quality of life. There has been no evidence from prospective studies and meta-analyses to indicate the superiority of pylorus preserving in terms of quality of life or delayed gastric emptying^{2,4,5,7}.

More recently and mostly in Japan since the late 1990s subtotal stomach-preserving pancreatoduodenectomy (stomach-

TRANSECÇÃO DO PÂNCREAS

☐ Lâmina fria

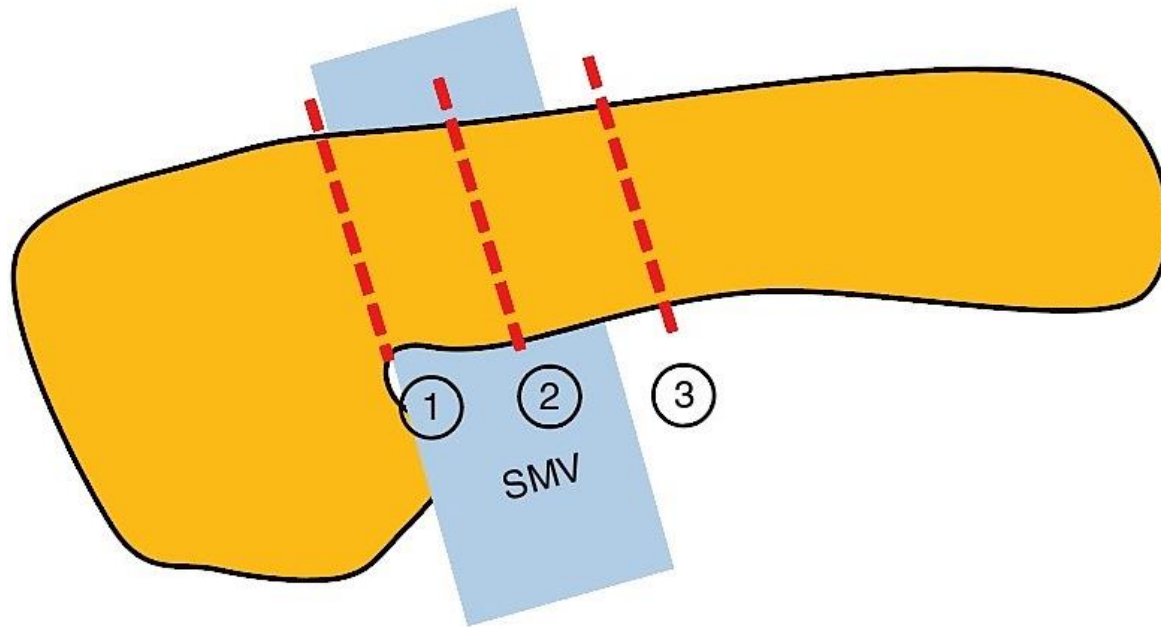


- ☐ Sangramento
- ☒ **Fístula pancreática**
- ☐ Gastroparesia
- ☐ Padrão oncológico

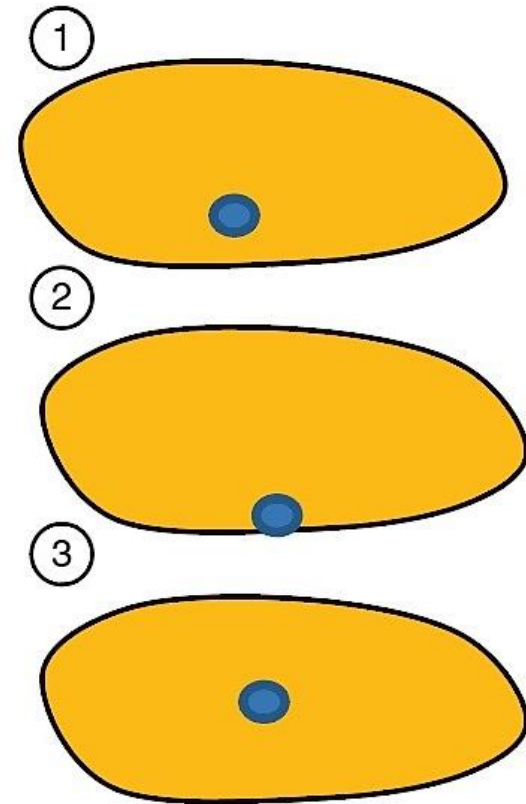
- ☐ Incisão do pâncreas com lâmina fria
- ☐ Promover bom suprimento sanguíneo do pâncreas e intestino

TRANSECÇÃO DO PÂNCREAS

- ☐ Sangramento
- ☒ Fístula pancreática
- ☐ Gastroparesia
- ☐ Padrão oncológico

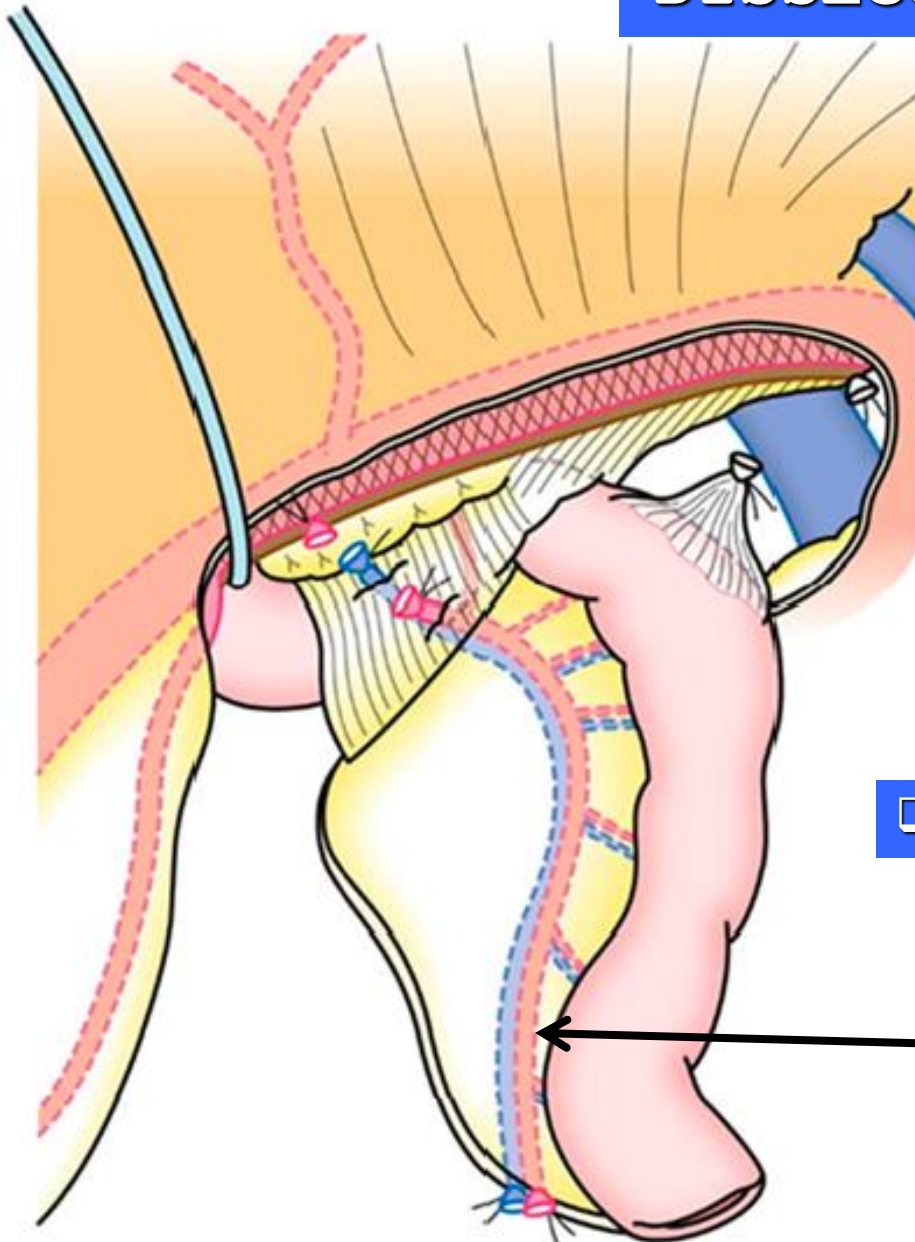


c



☐ À esquerda da margem da veia porta

DISSECÇÃO DA ESQUERDA DA SMA



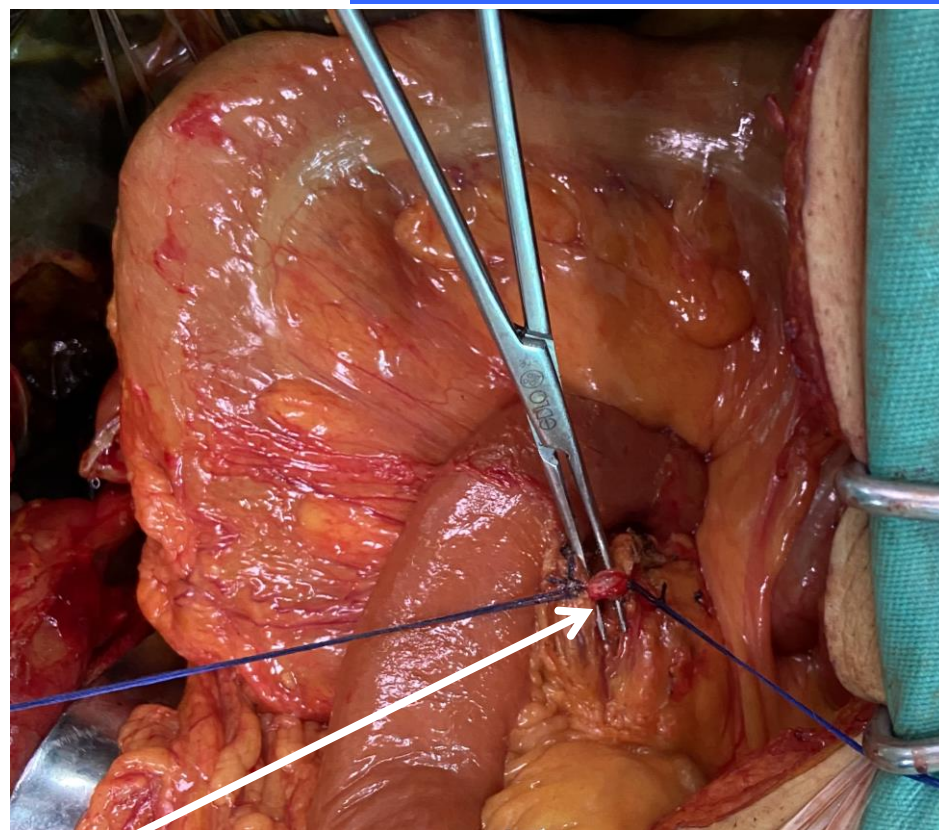
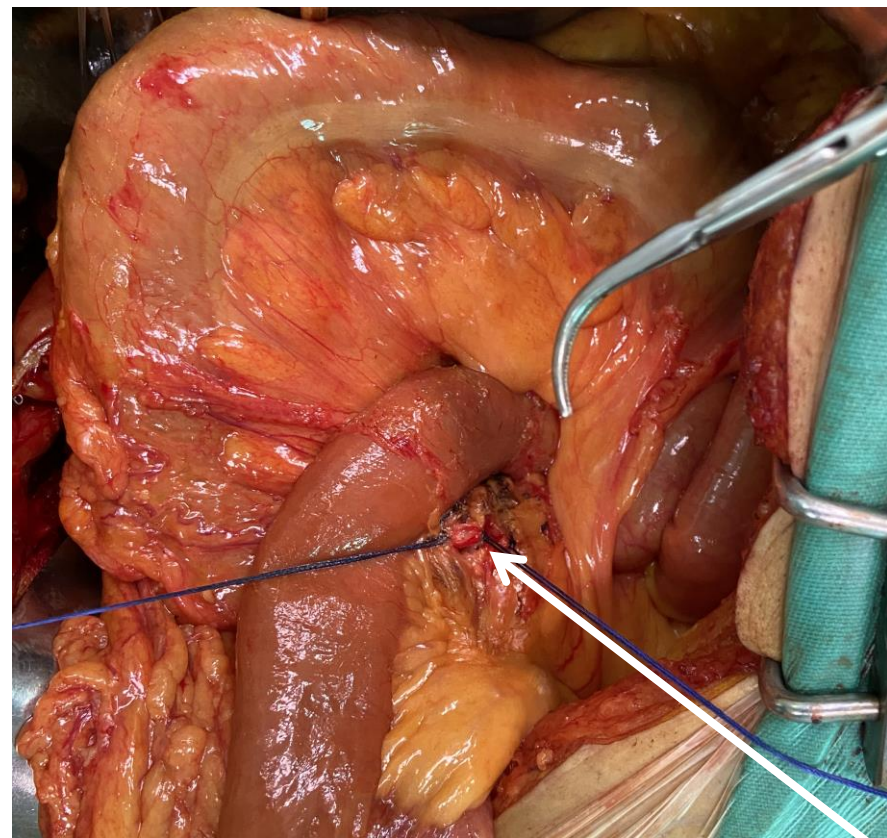
□ 15-25 cm do ângulo de Treitz

Artéria jejunal JA1

Transecção do jejunum e ligamento de Treitz

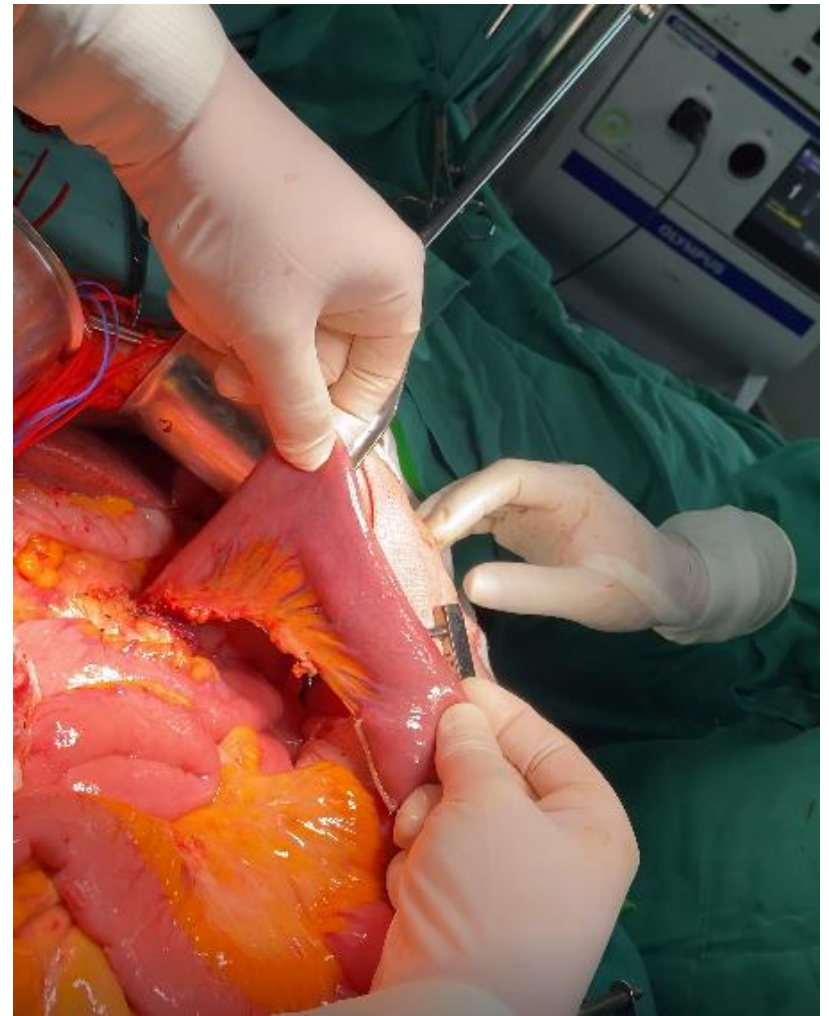
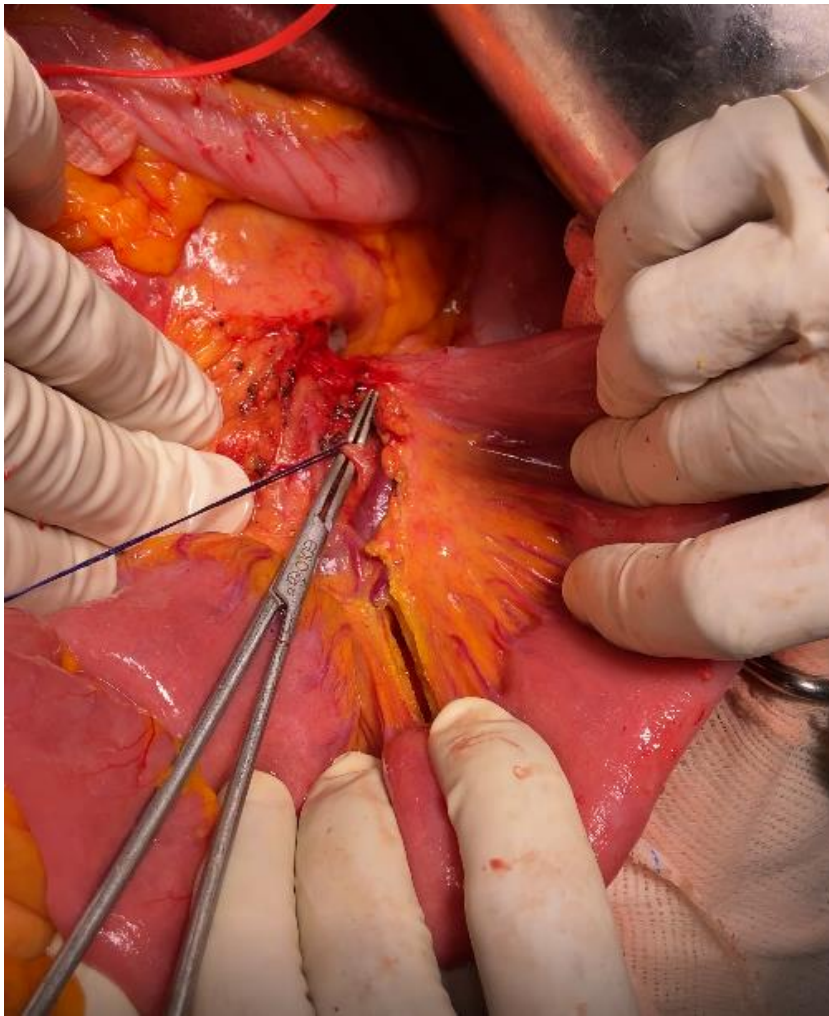
DISSECÇÃO DA ESQUERDA DA SMA

- ☐ Sangramento
- ☐ Fístula pancreática
- ☐ Gastroparesia
- ☒ Padrão oncológico

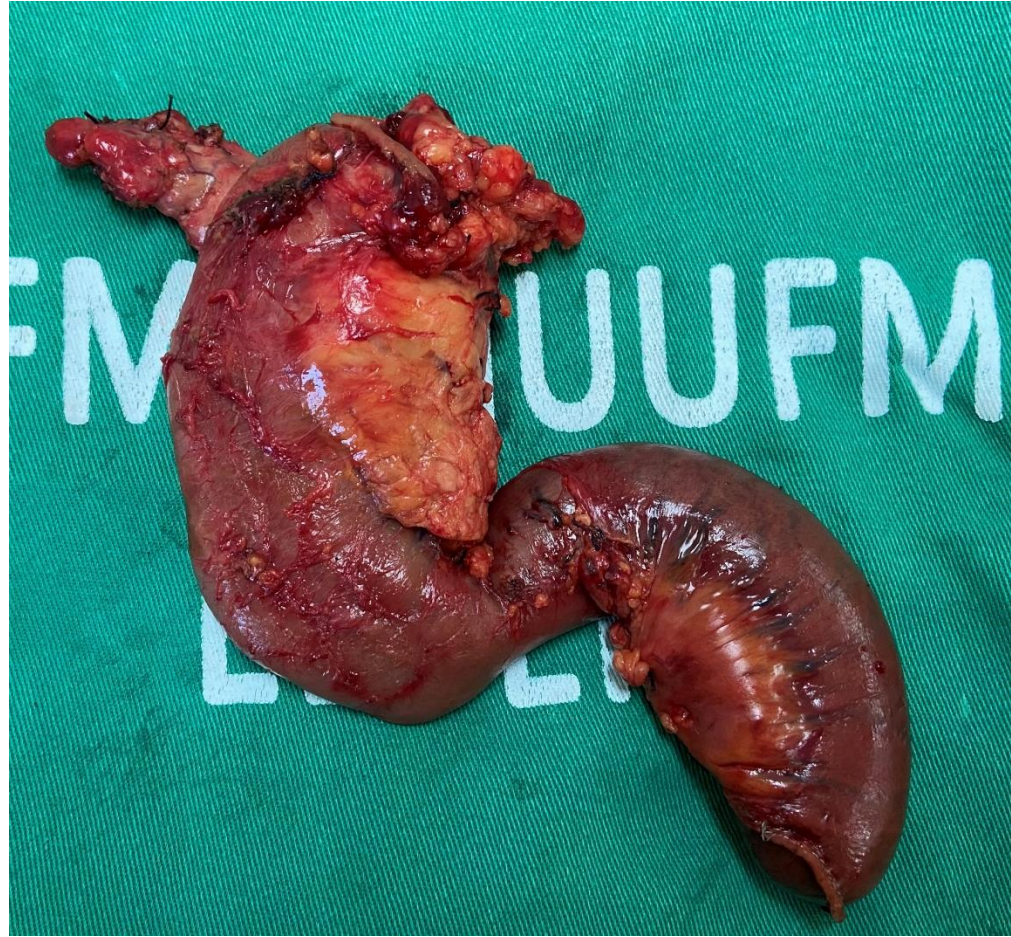
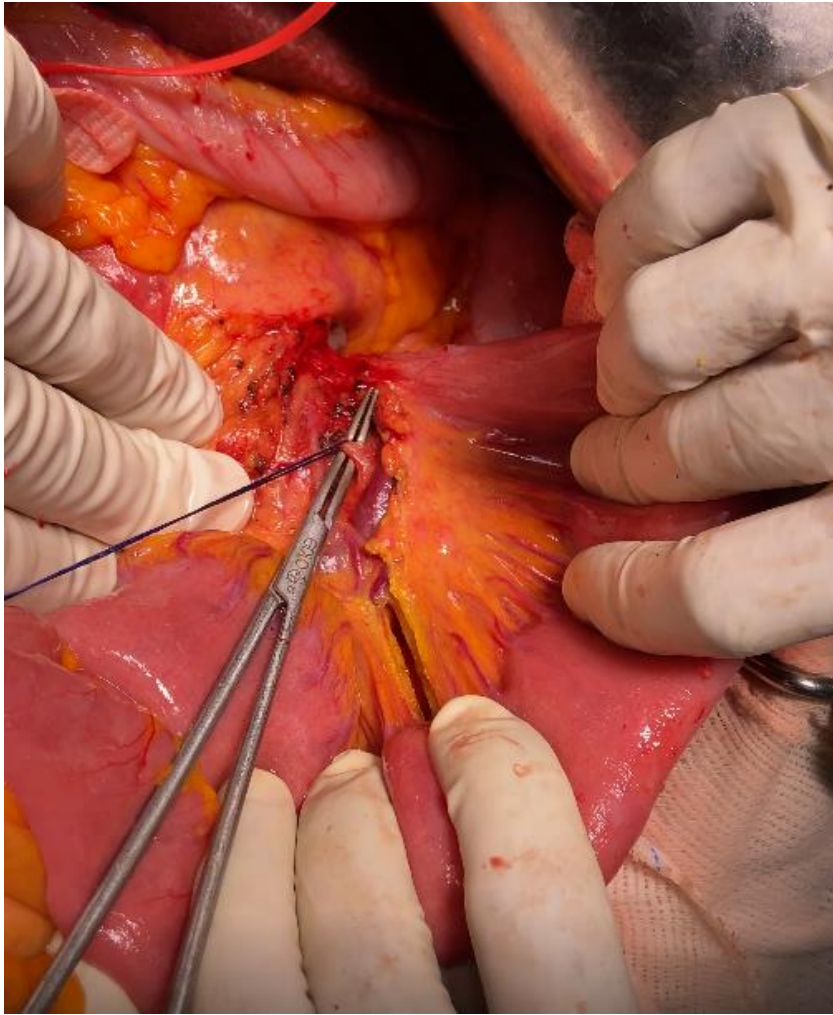


Artéria jejunal J1A

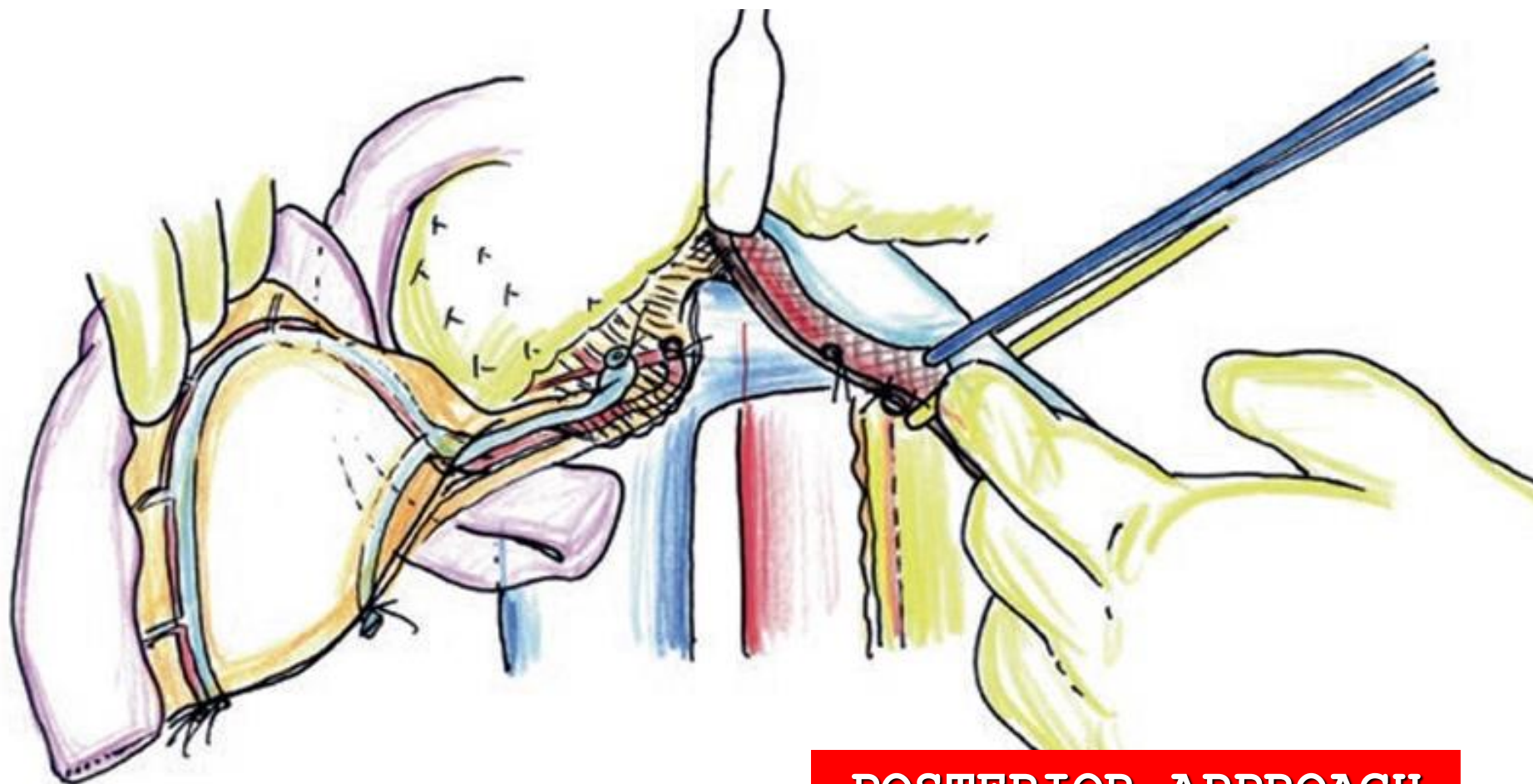
Nível 2



Nível 2

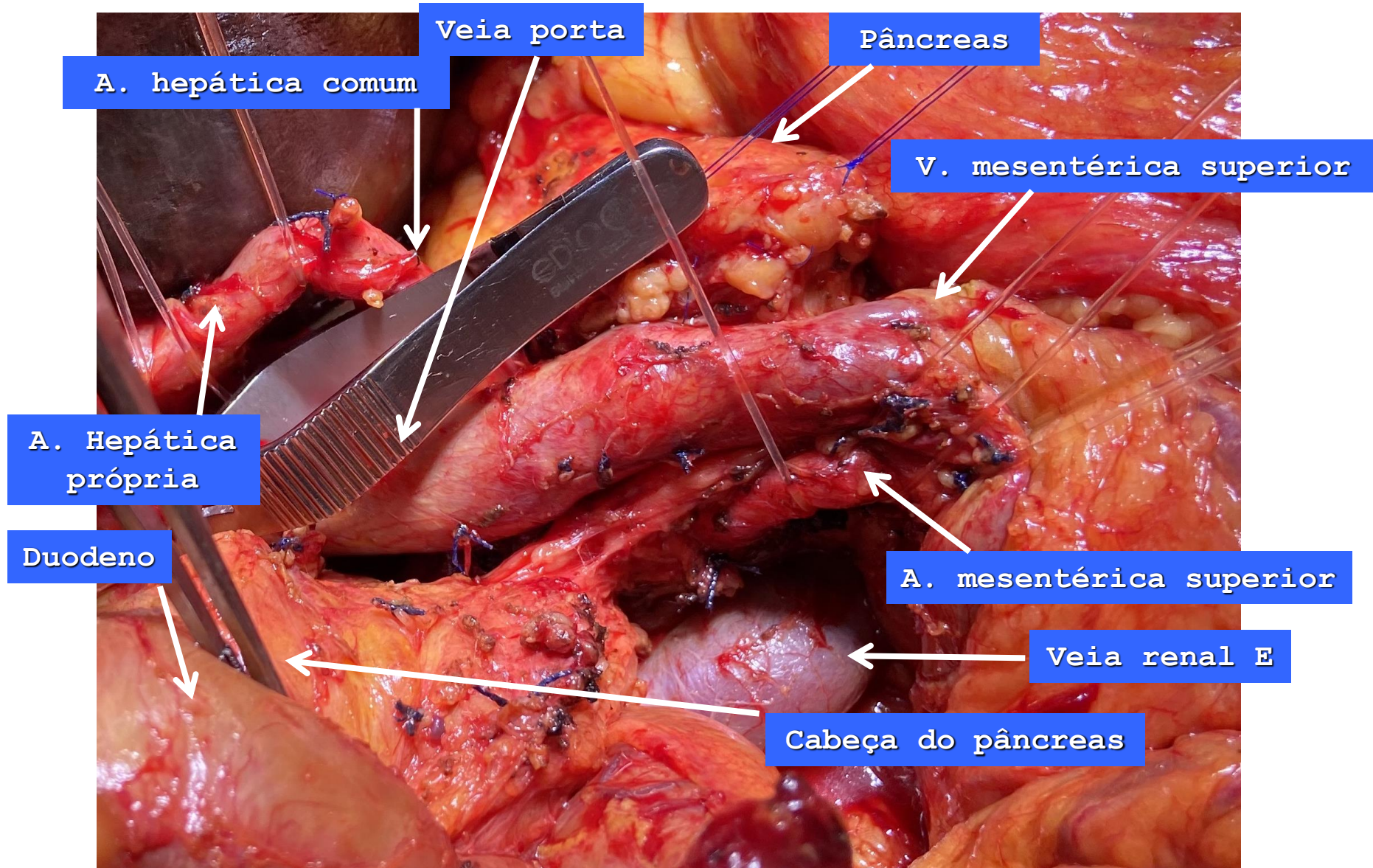


TRANSPORTAR PARA DIREITA



POSTERIOR APPROACH

FINALIZAÇÃO DA RESSECÇÃO



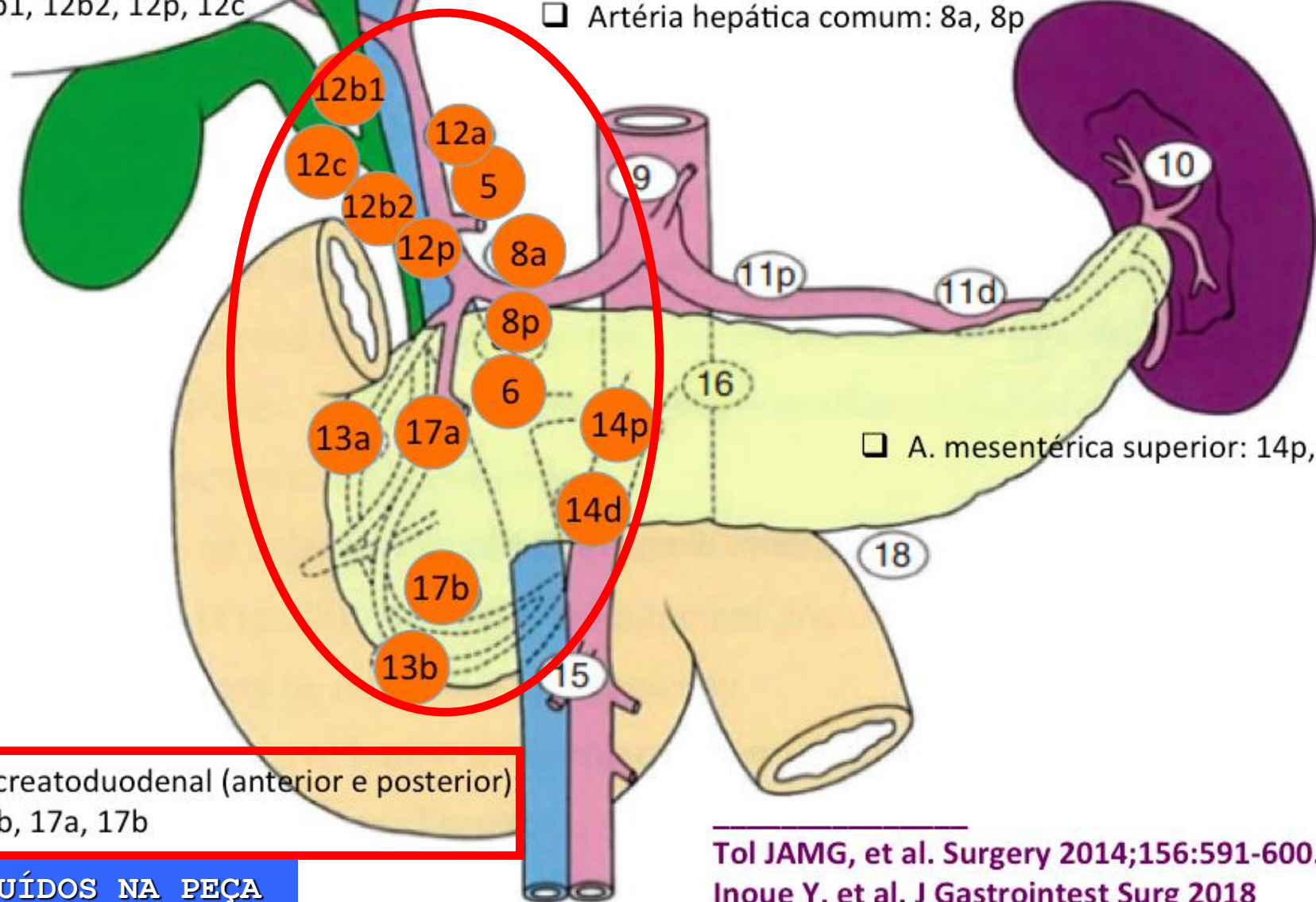
Linfadenectomia

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❑ Pilóricos: 5, 6

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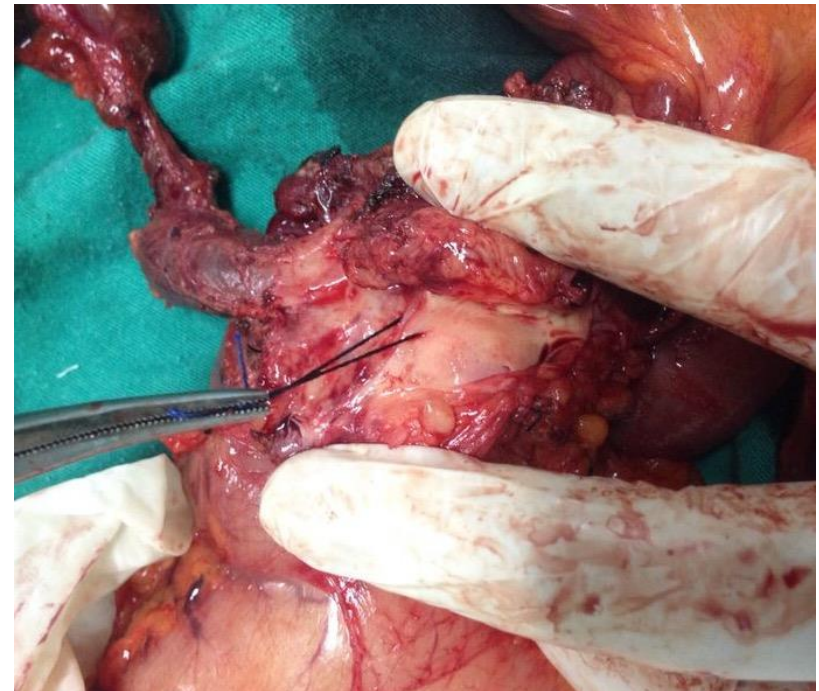
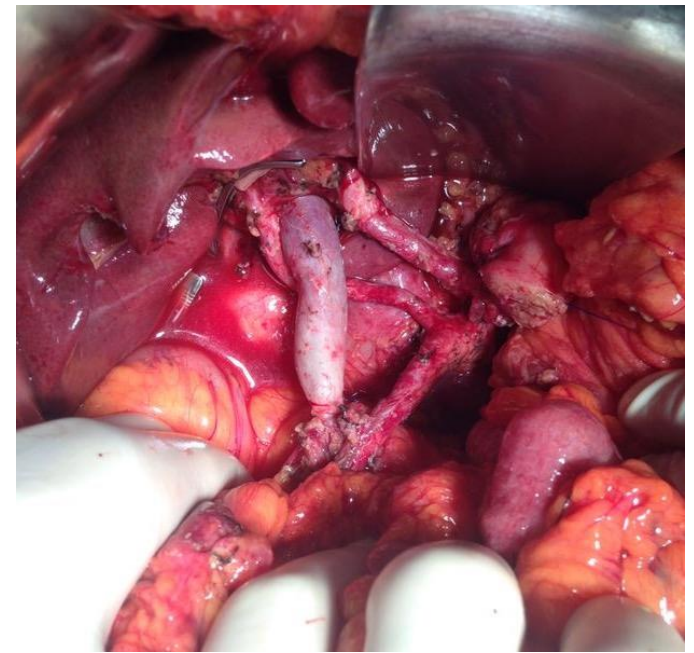
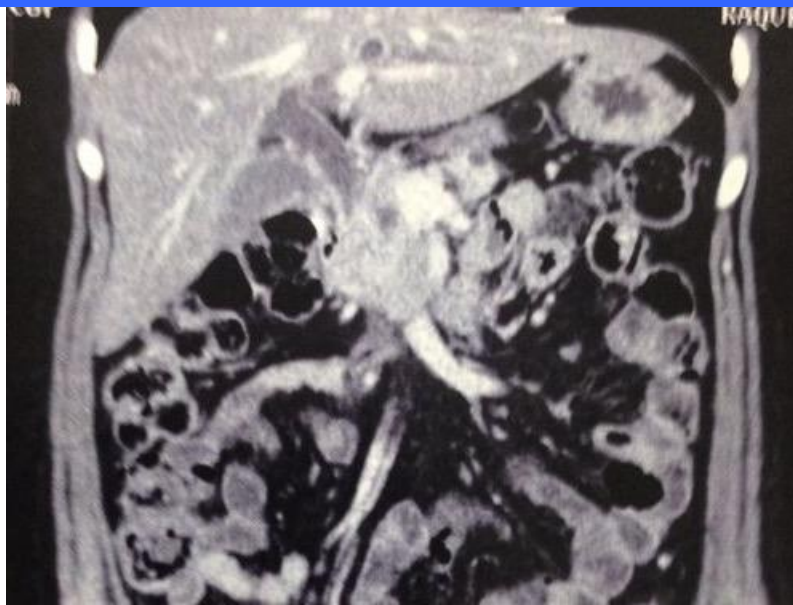
❑ A. mesentérica superior: 14p, 14d

❑ Pancreatoduodenal (anterior e posterior)
13a, 13b, 17a, 17b

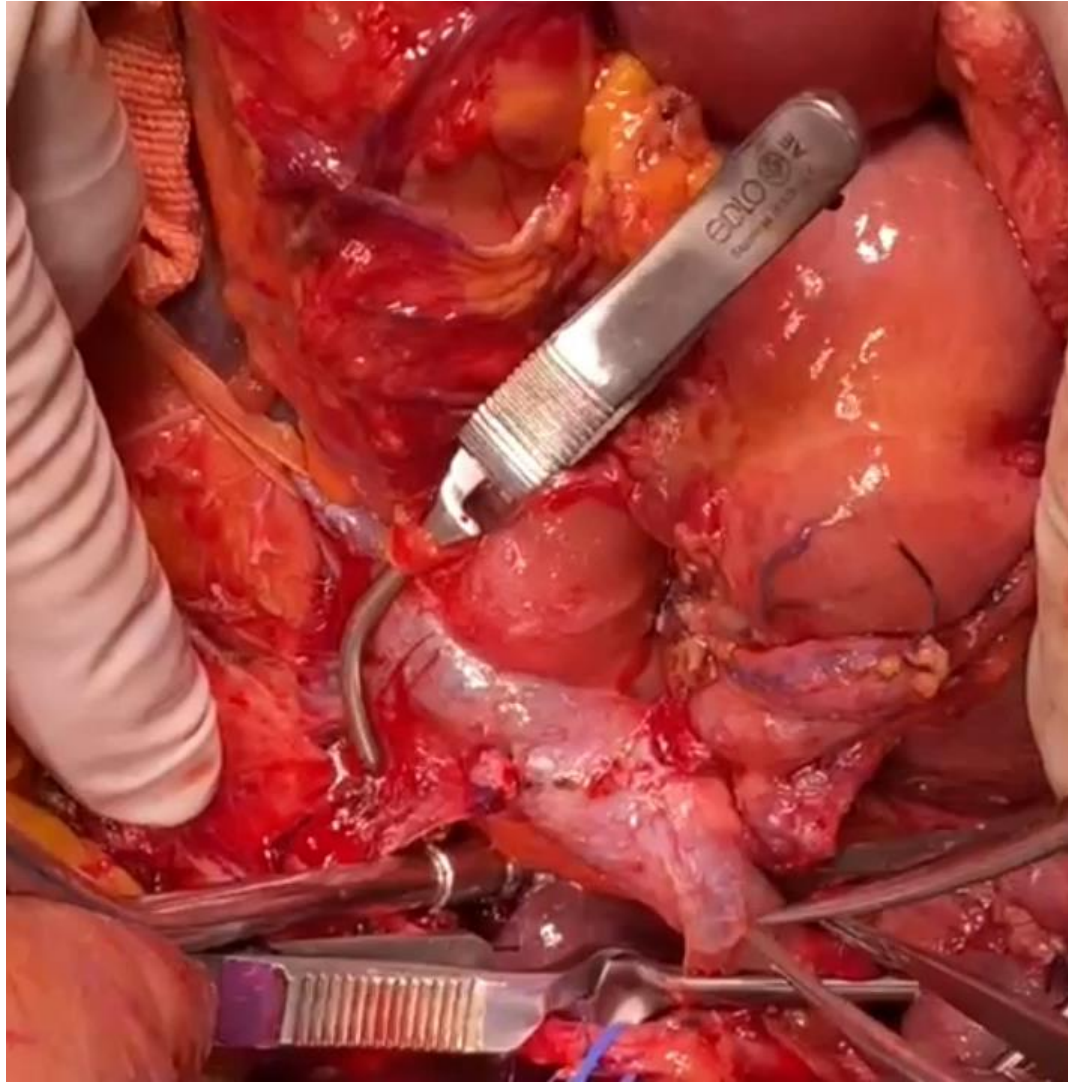
INCLUÍDOS NA PEÇA

Tol JAMG, et al. Surgery 2014;156:591-600.
Inoue Y, et al. J Gastrointest Surg 2018

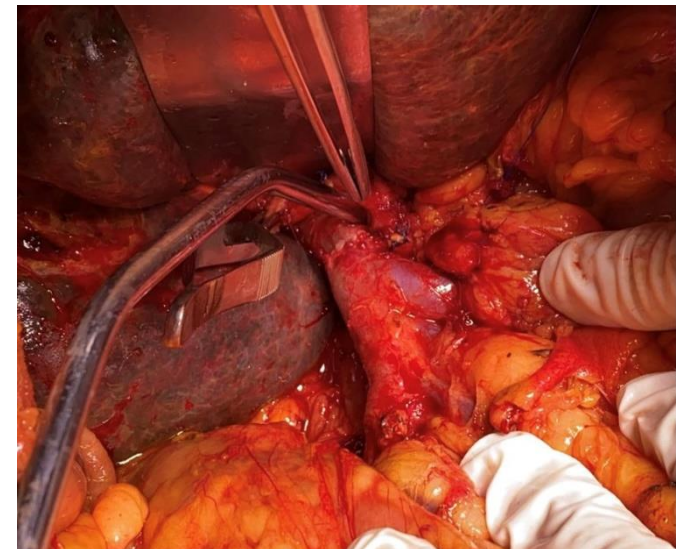
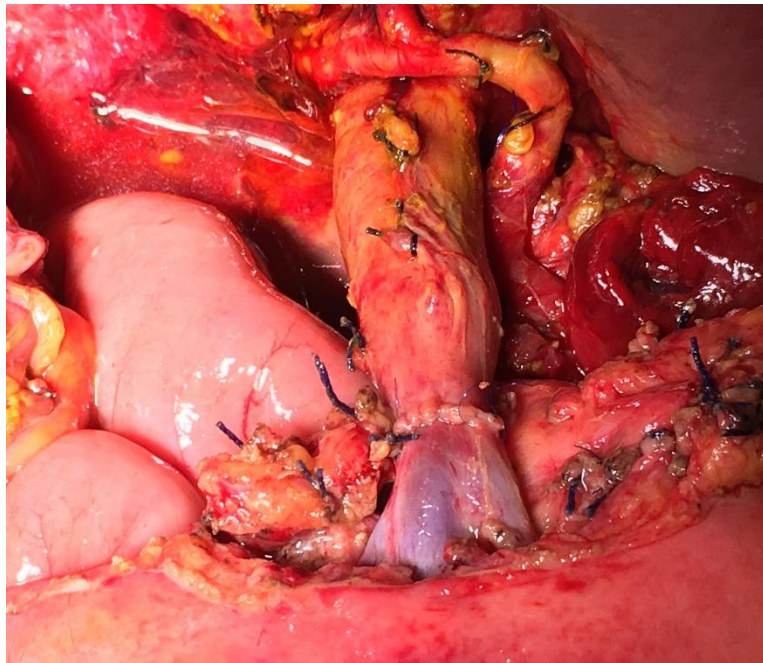
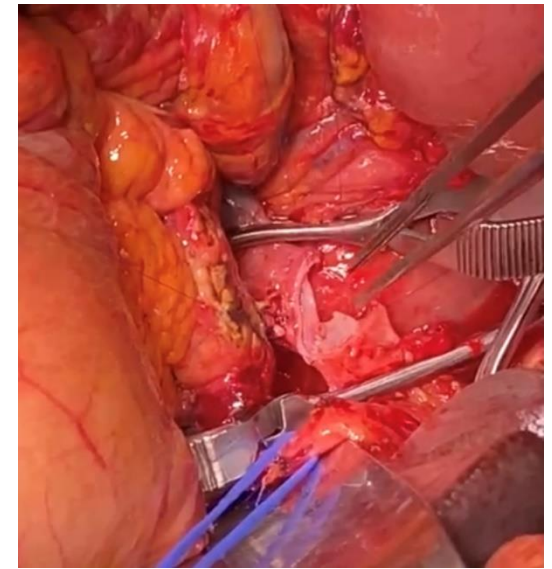
RESSECÇÃO VASCULAR



RESSECÇÃO VASCULAR



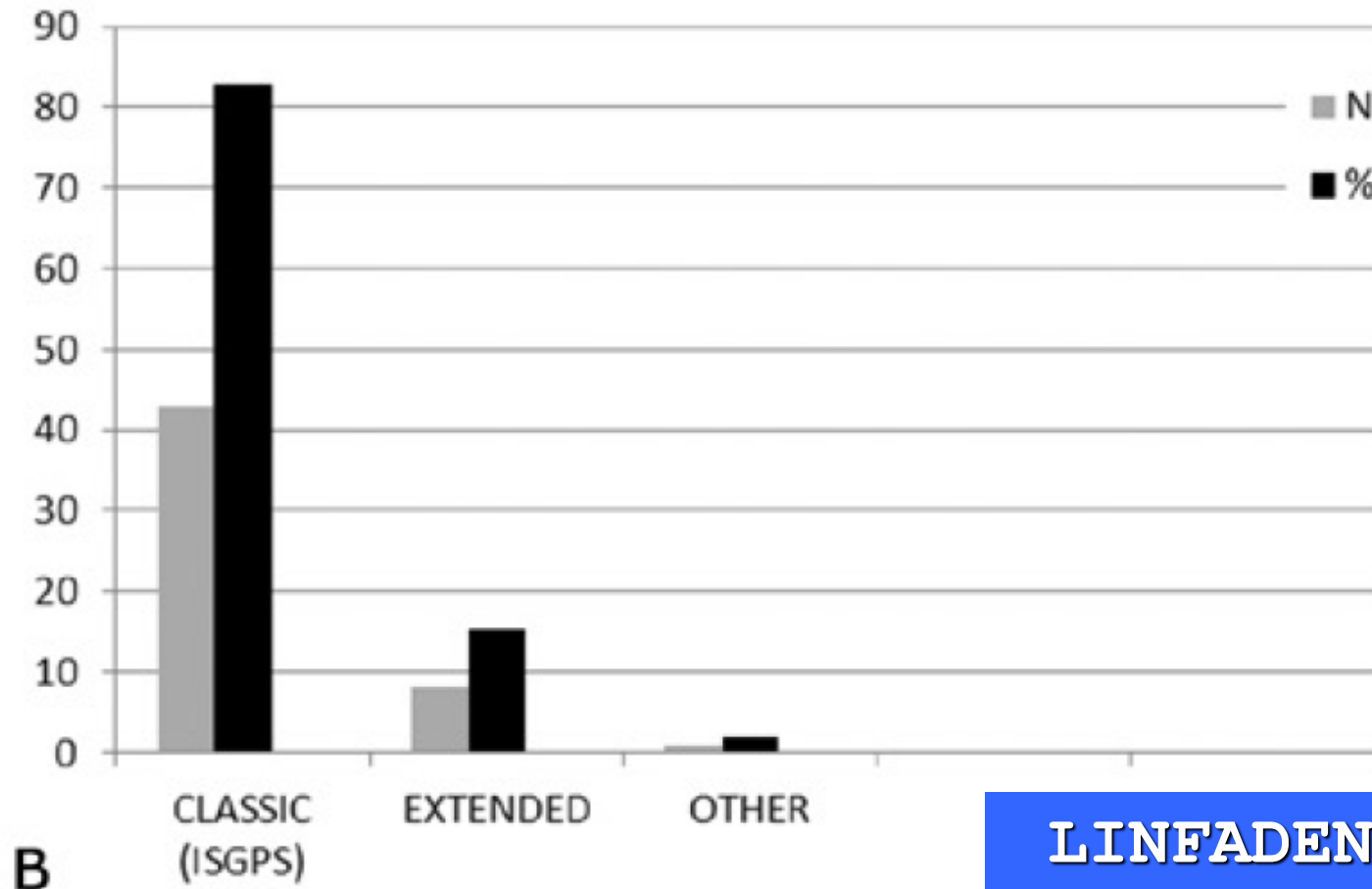
RESSECÇÃO VASCULAR



PANCREATODUODENECTOMY: BRAZILIAN PRACTICE PATTERNS*

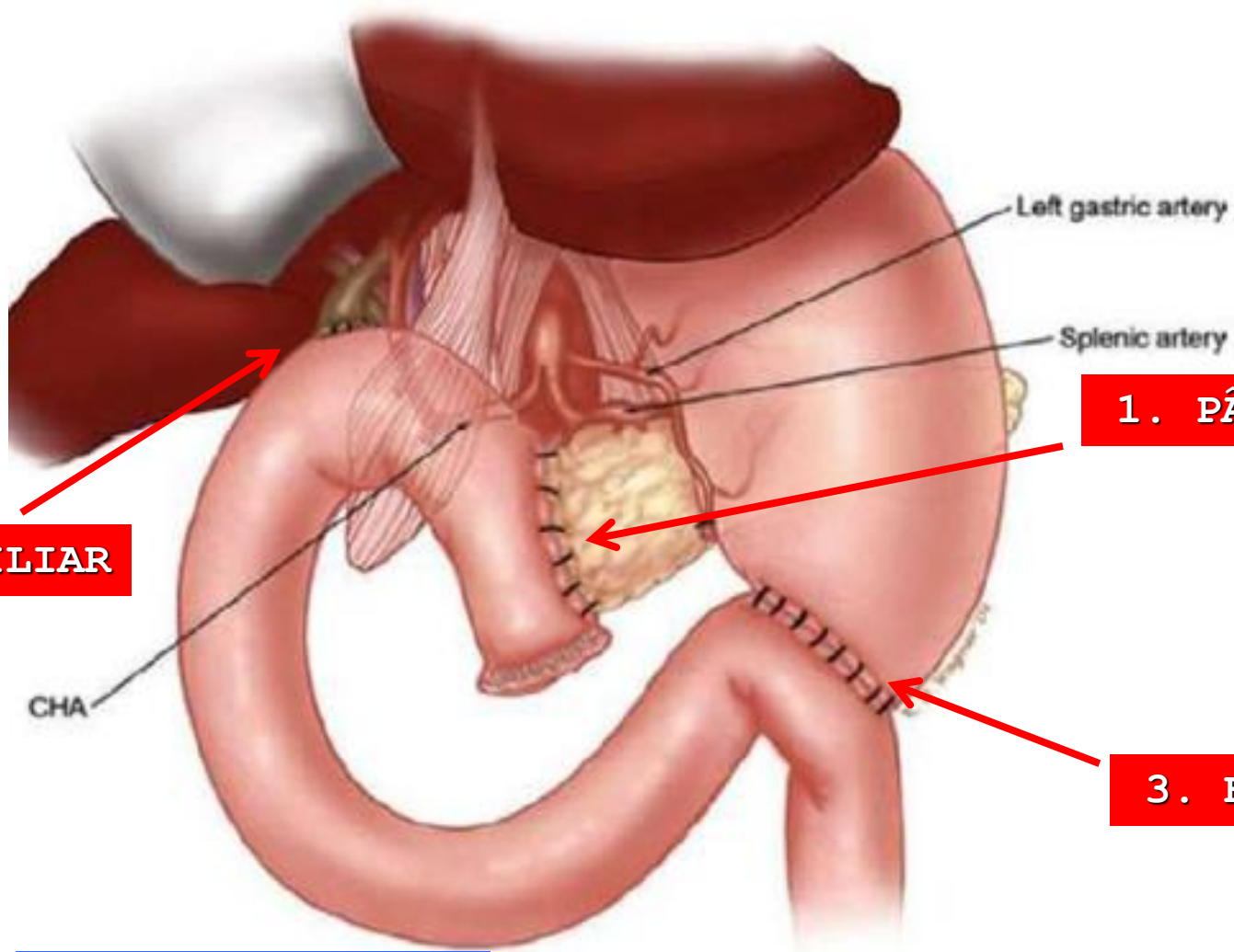
*Duodenopancreatectomia: prática padrão do Brasil**

Orlando Jorge M **TORRES**¹, Eduardo de Souza M **FERNANDES**², Rodrigo Rodrigues **VASQUES**¹, Fabio Luís **WAECHTER**³,
Paulo Cezar G. **AMARAL**⁴, Marcelo Bruno de **REZENDE**⁵, Roland Montenegro **COSTA**⁶, André Luís **MONTAGNINI**⁷



RECONSTRUÇÃO

☐ Alça única



2. VIA BILIAR

1. PÂNCREAS

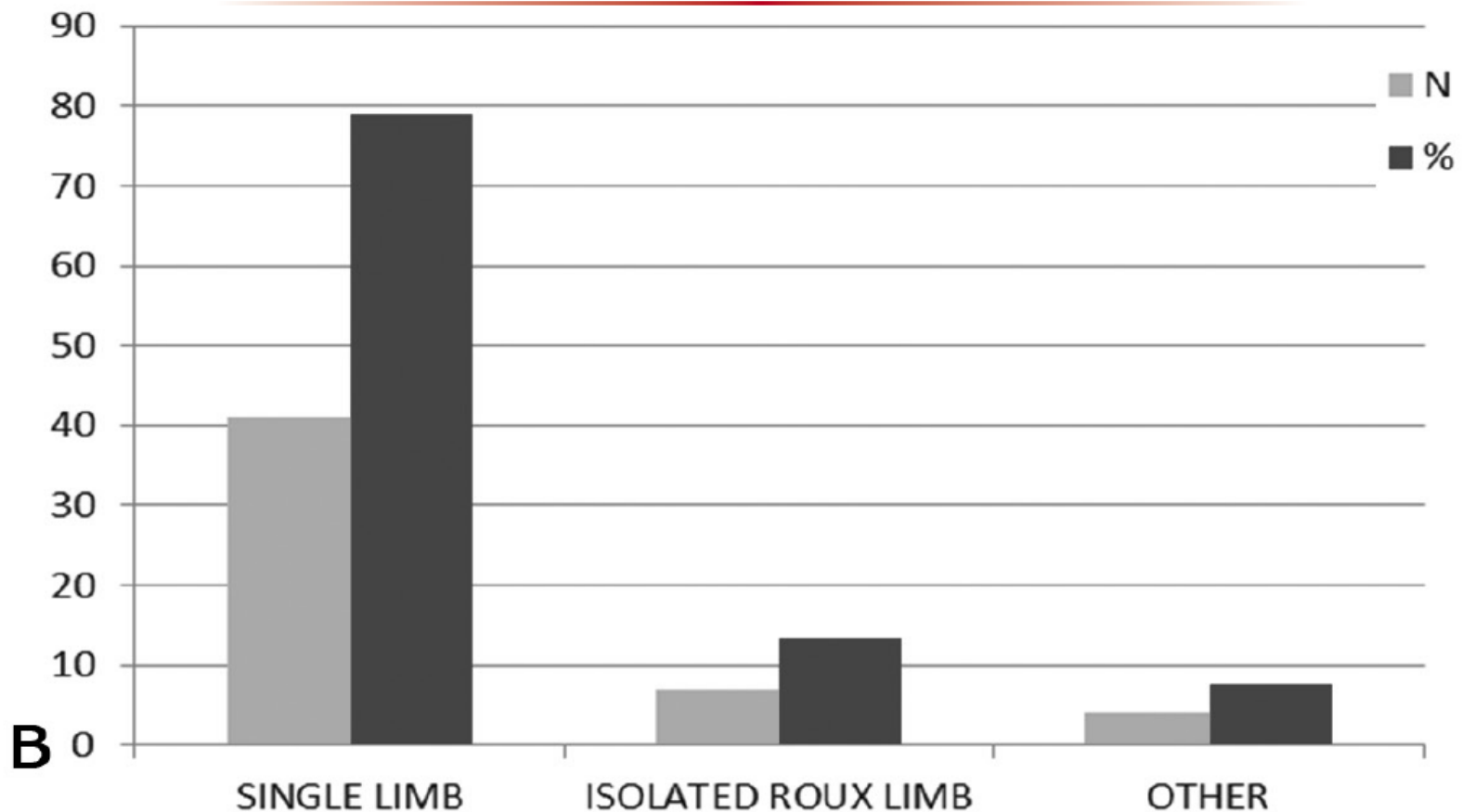
3. ESTÔMAGO

ANASTOMOSES

PANCREATODUODENECTOMY: BRAZILIAN PRACTICE PATTERNS*

*Duodenopancreatectomia: prática padrão do Brasil**

Orlando Jorge M **TORRES**¹, Eduardo de Souza M **FERNANDES**², Rodrigo Rodrigues **VASQUES**¹, Fabio Luís **WAECHTER**³,
Paulo Cezar G. **AMARAL**⁴, Marcelo Bruno de **REZENDE**⁵, Roland Montenegro **COSTA**⁶, André Luís **MONTAGNINI**⁷



ANASTOMOSE PANCREÁTICA

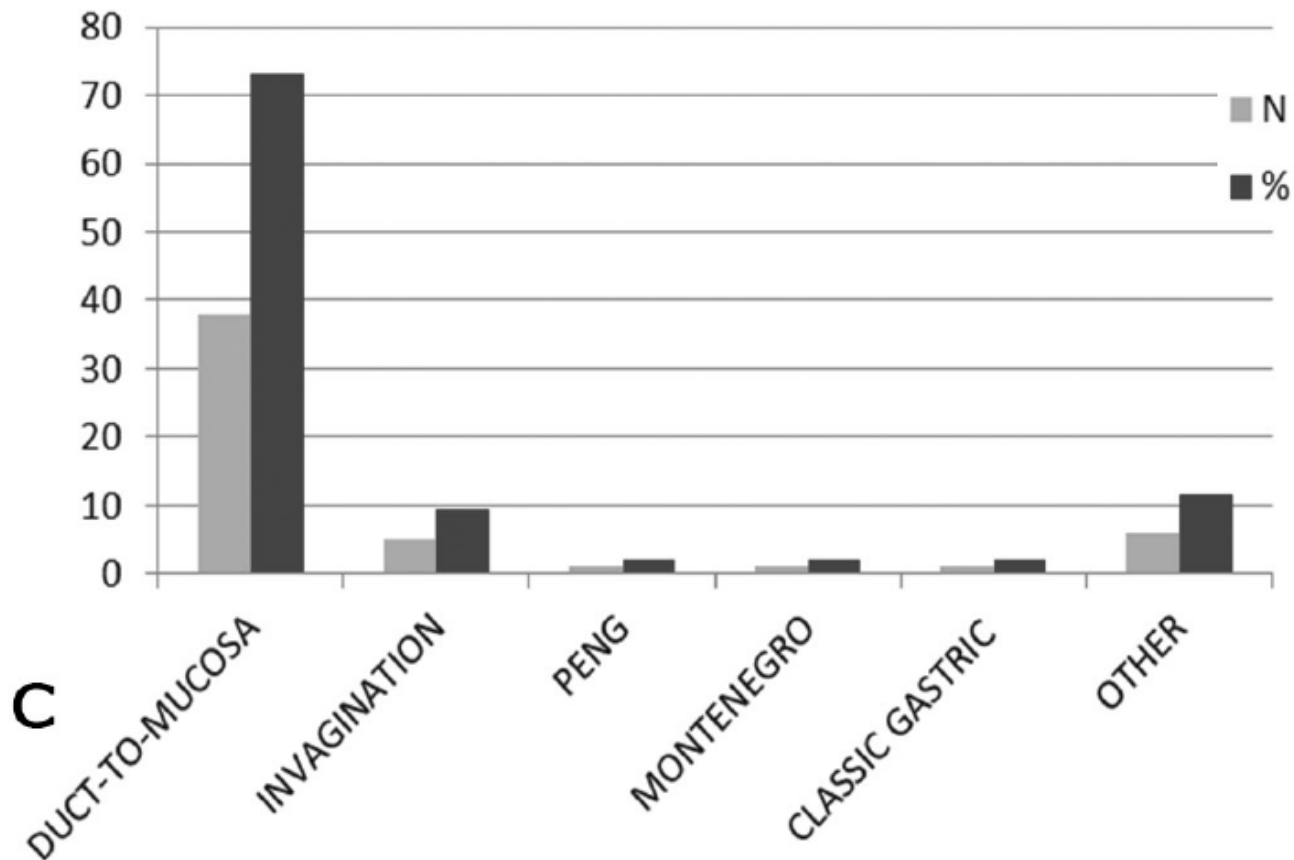
- ☐ Telescopagem (Hunt) (1995–1999)
- ☐ Ducto-mucosa (2000–2016)
- ☐ Peng (2013)
- ☐ Heidelberg modificada (2016)



PANCREATODUODENECTOMY: BRAZILIAN PRACTICE PATTERNS*

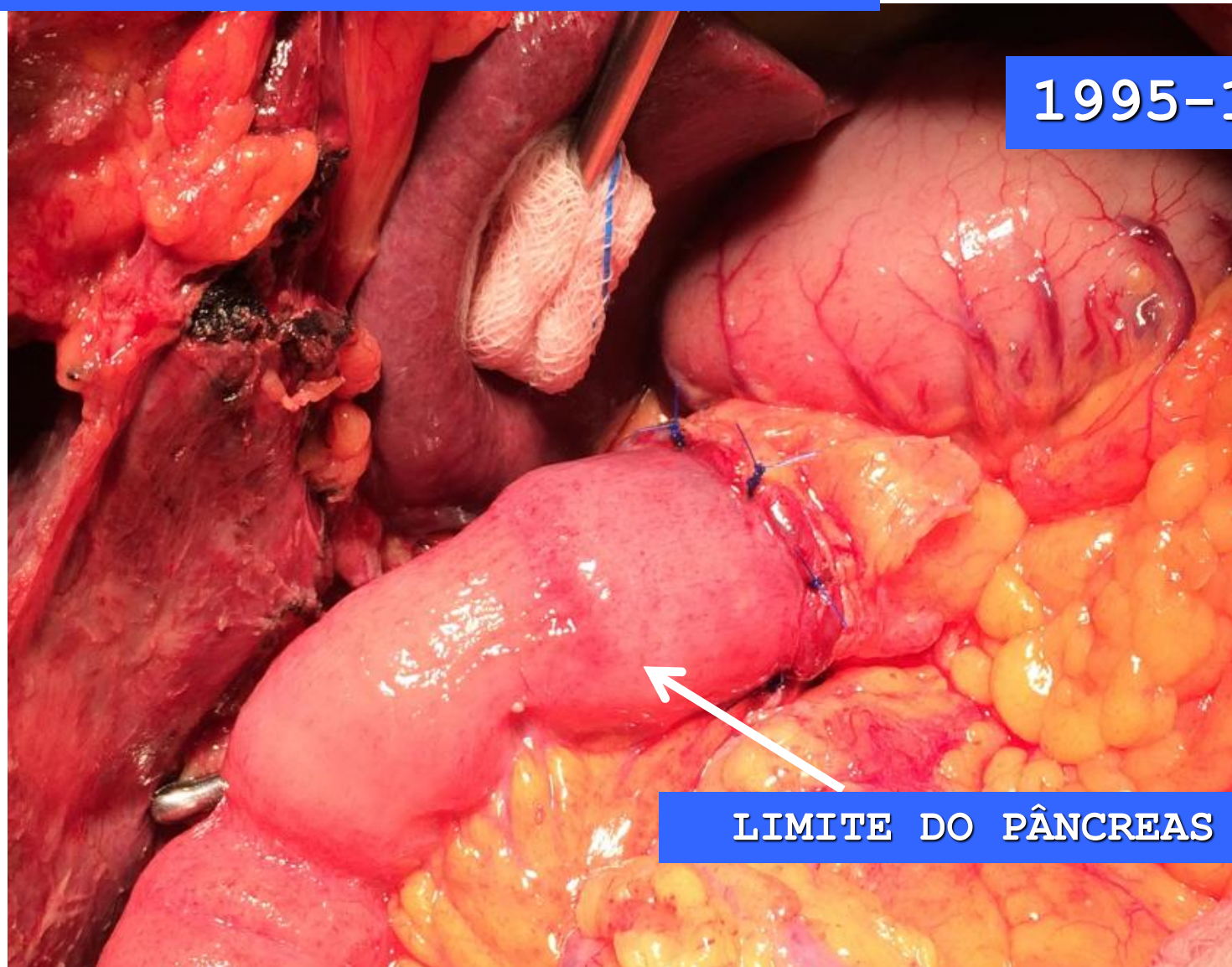
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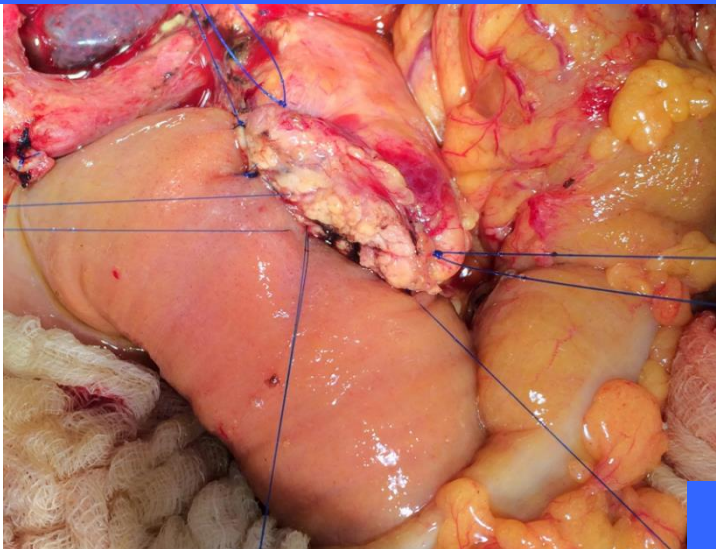
INVAGINAÇÃO (TELESCOPAGEM)

1995-1999

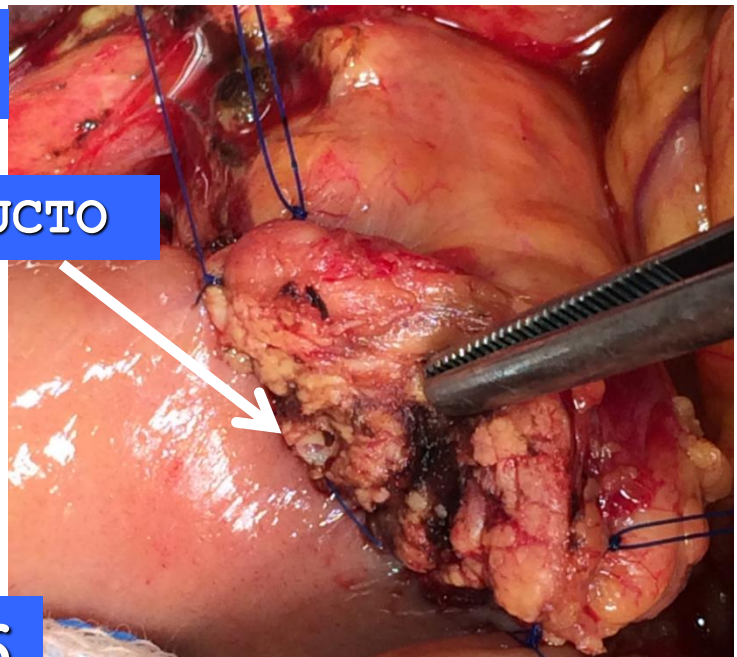


LIMITE DO PÂNCREAS

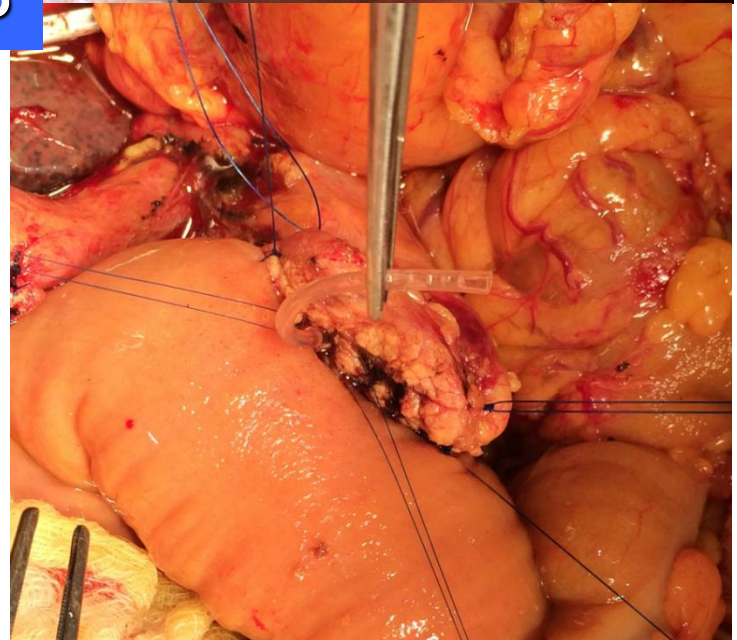
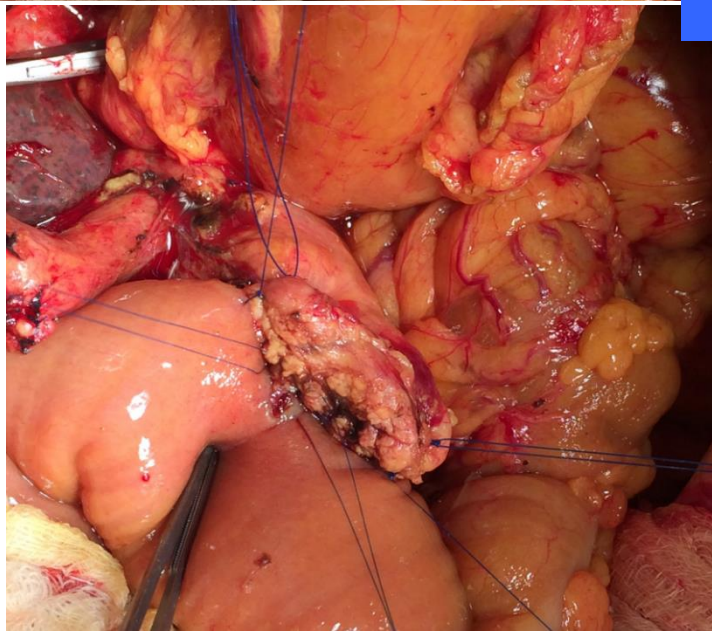
ANASTOMOSE DUCTO-MUCOSA

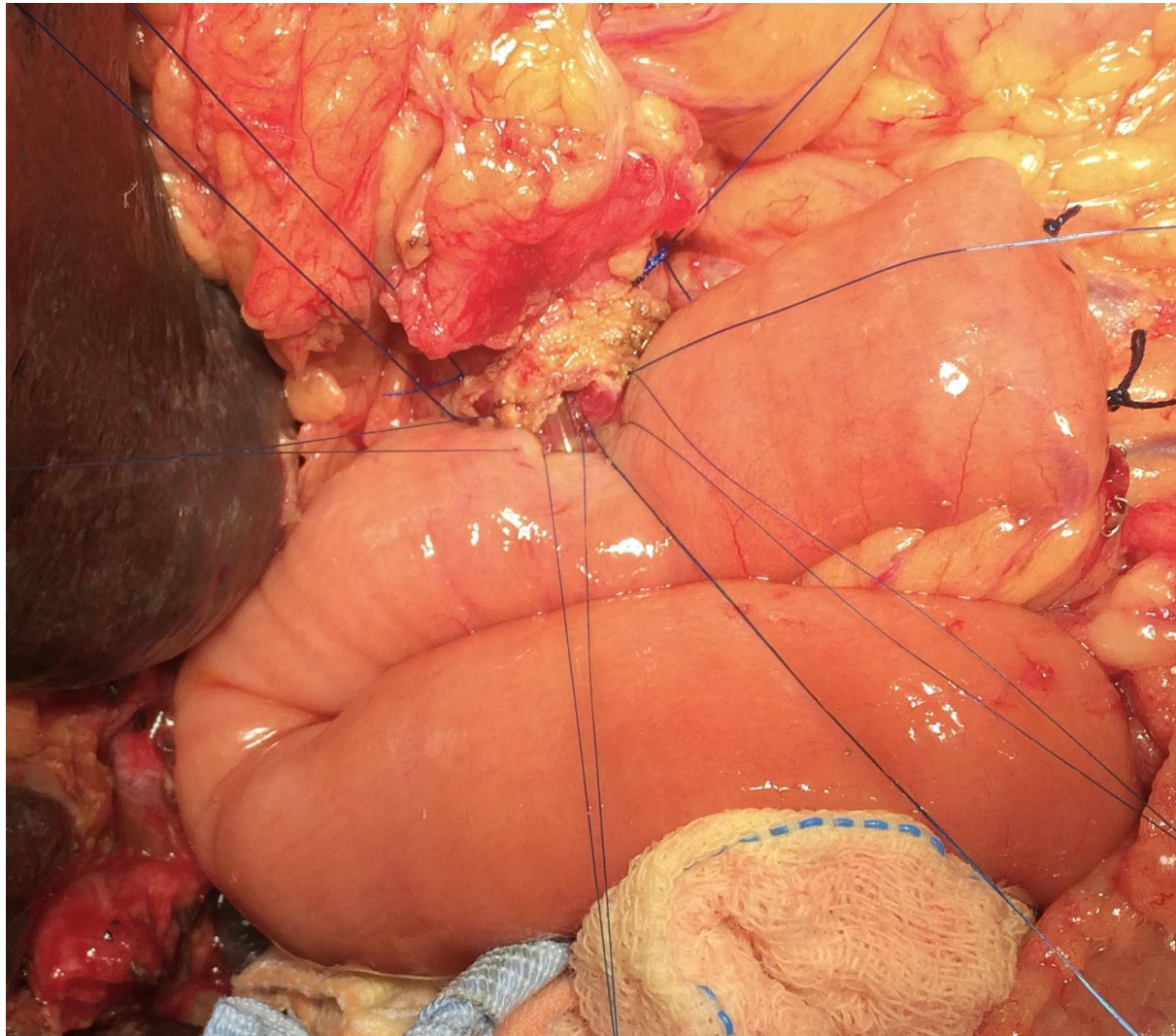


DUCTO



2000-2016





DUCTO

Hangzhou, China - 2017



Pancreatoduodenectomy, Brazilian practice patterns

Orlando Jorge Martins Torres

Universidade Federal do Maranhão, Centro de Ciências da Saúde, Departamento de Medicina II
São Luís, Maranhão, Brazil

Torres教授来自巴西的马拉尼昂州联邦大学医学院，担任消化道手术部主任，致力于消化道肿瘤外科以及肝胆胰外科。

曾在多个国际医学中心进修和培训，如Shouldice癌研究所（加拿大，1999年）、斯隆凯特林癌症中心（纽约，2000年）、匹兹堡大学医学中心（美国，2005年）、MD安德森癌症中心（休斯敦，2010）、伦敦帝国学院（伦敦，2012年）、挪威奥斯陆大学医院（2015年）、孟买的塔塔纪念医院（2016年，印度）等。

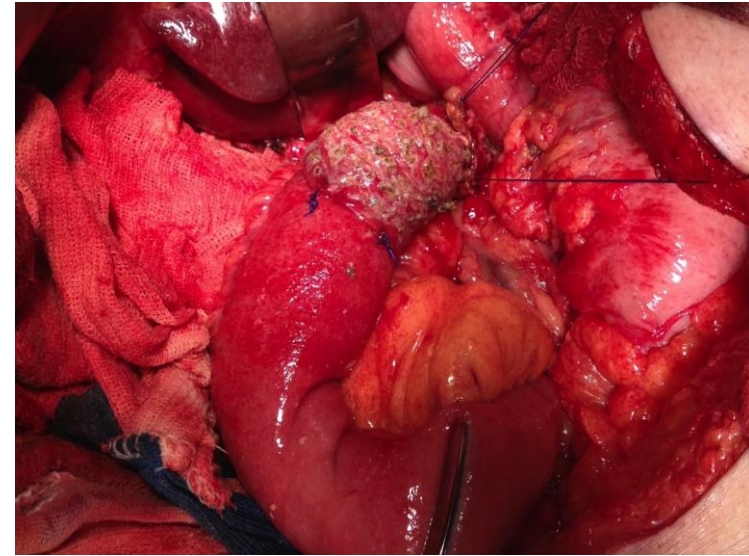
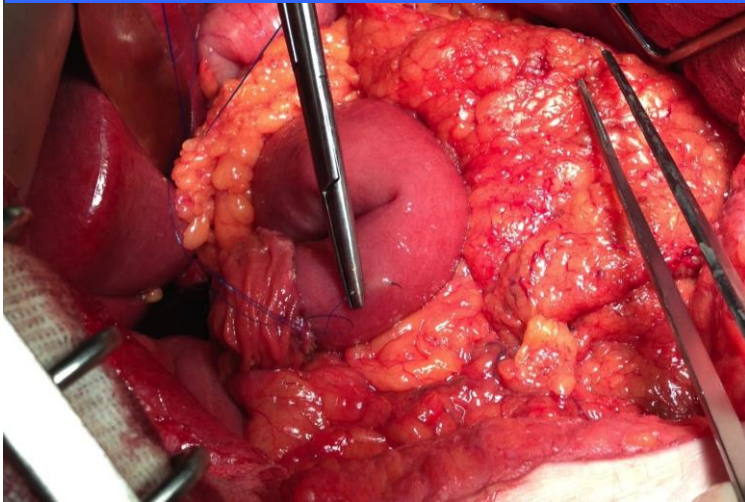
讲座时间：2017-5-31 上午 7点30分

地点：浙二医院滨江院区中心楼20楼西示教室（视屏会议转播）

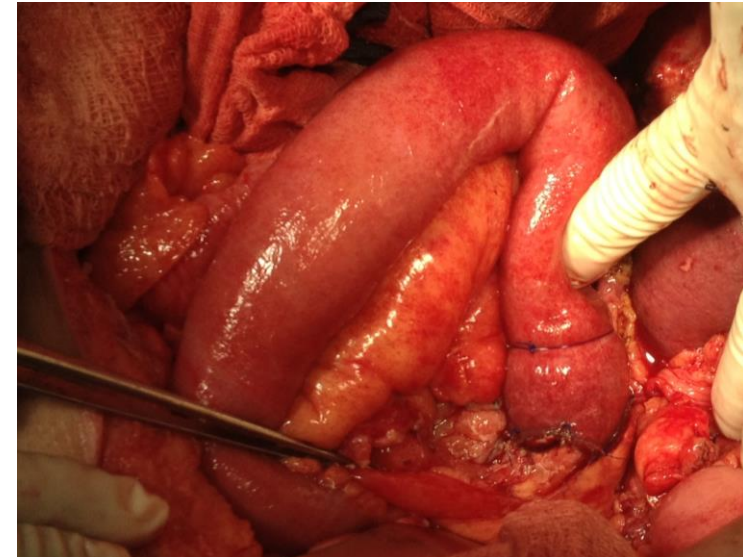
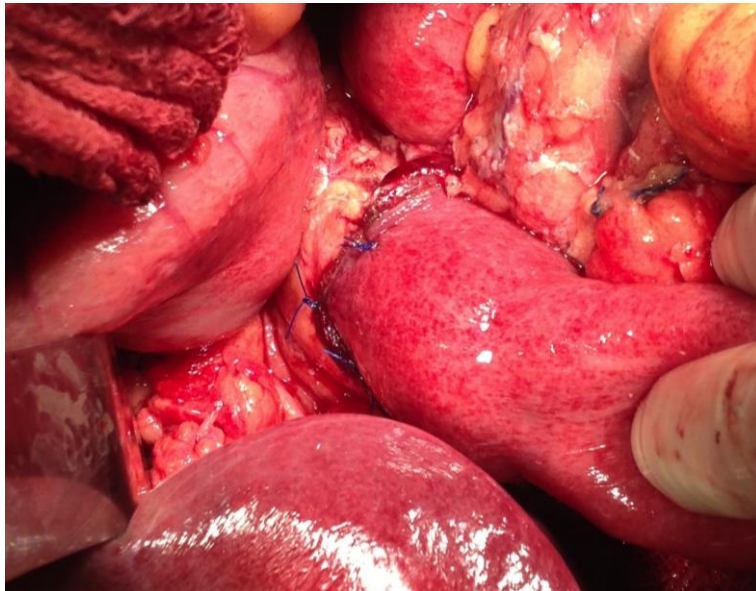
Shu-You Peng



ANASTOMOSE TIPO PENG



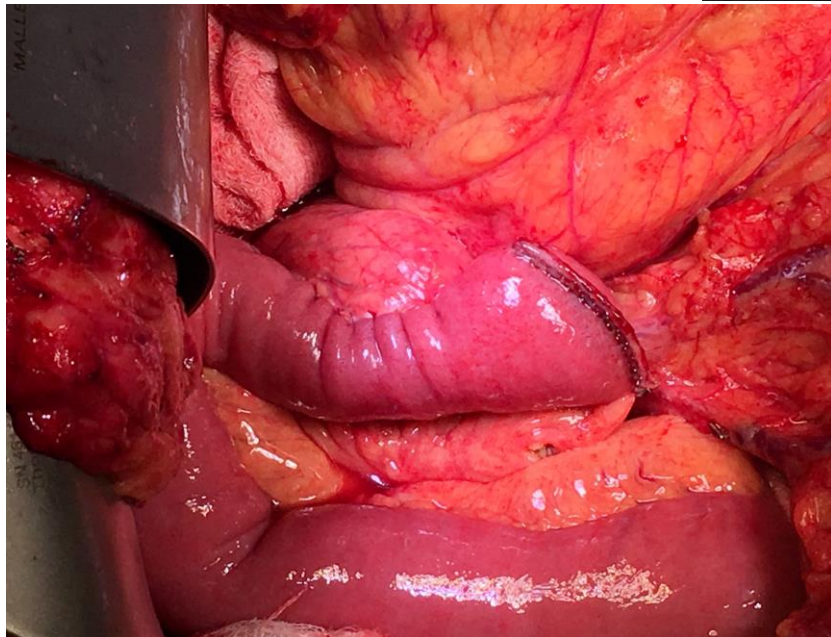
2013



Mumbai 2016



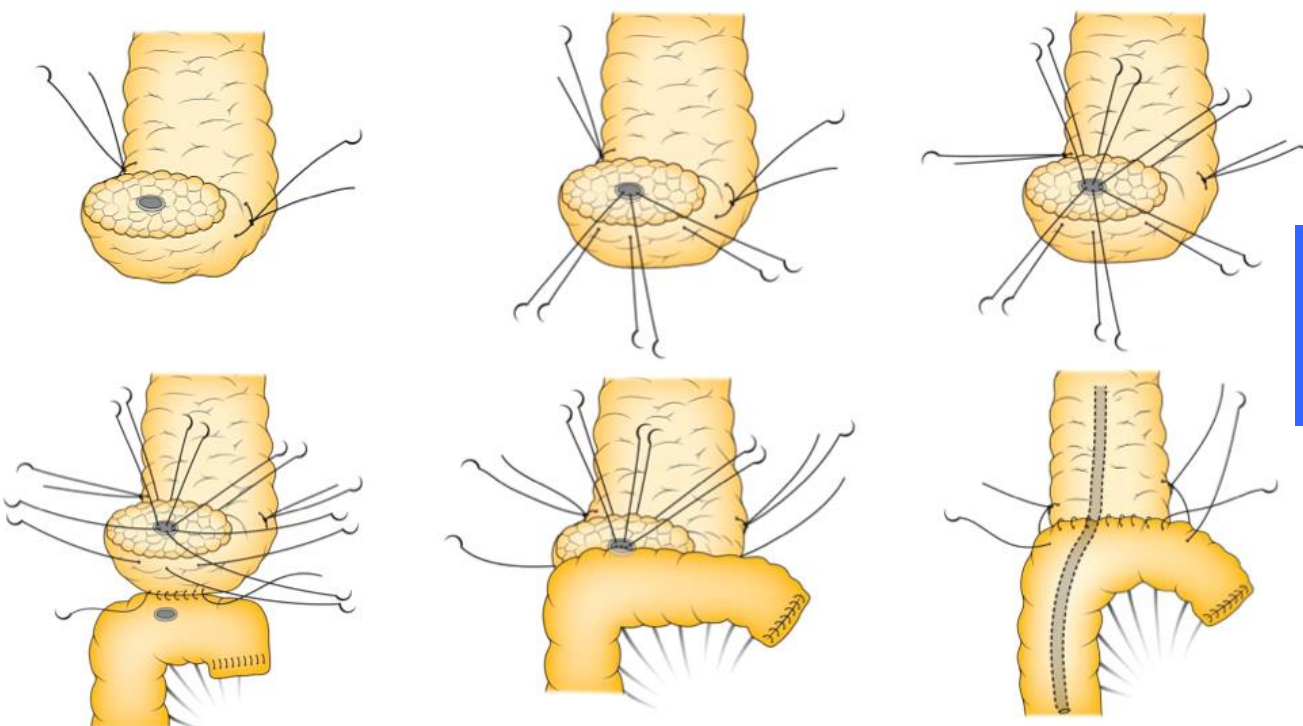
Shailesh Shrikhande



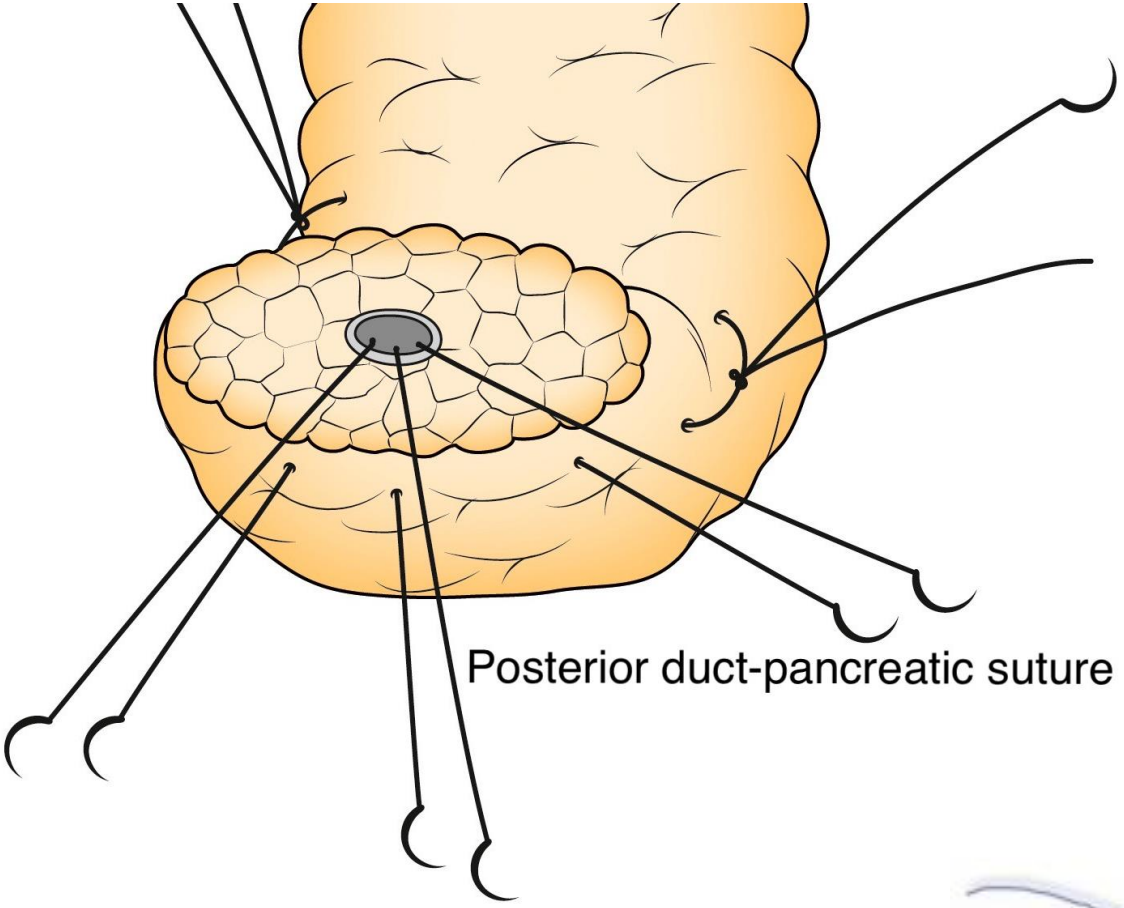
MODIFIED HEIDELBERG TECHNIQUE FOR PANCREATIC ANASTOMOSIS

Anastomose pancreática pela técnica de Heidelberg modificada

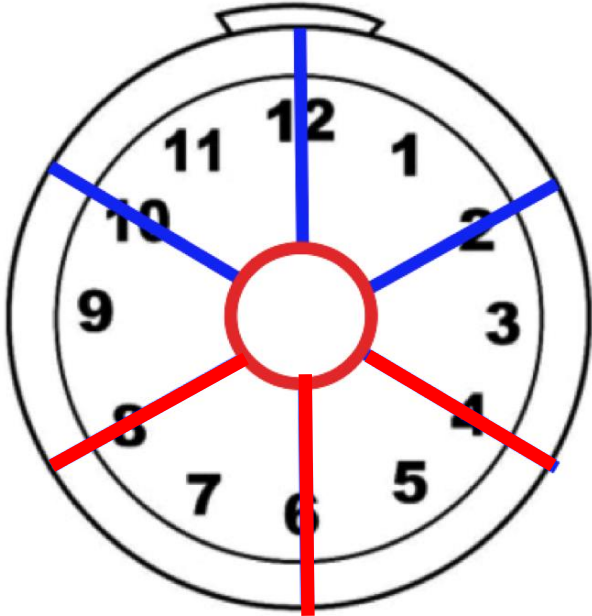
Orlando Jorge M **TORRES**¹, Roberto C N da Cunha **COSTA**¹, Felipe F Macatrão **COSTA**¹, Romerito Fonseca **NEIVA**¹,
Iarik Soares **SULEIMAN**¹, Yglésio L Moyses S **SOUZA**¹, Shailesh V **SHRIKHANDE**²



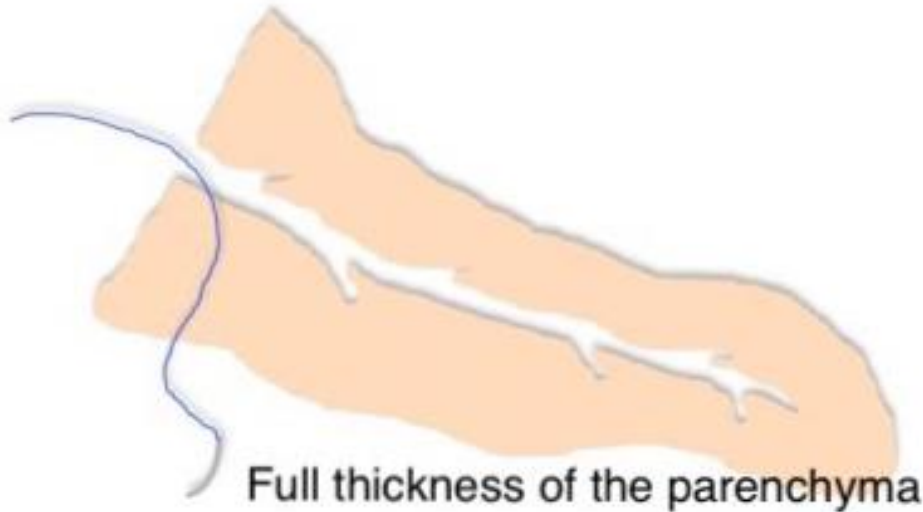
- ☐ Sangramento
- ☒ Fístula pancreática
- ☐ Gastroparesia
- ☐ Padrão oncológico



Posterior duct-pancreatic suture

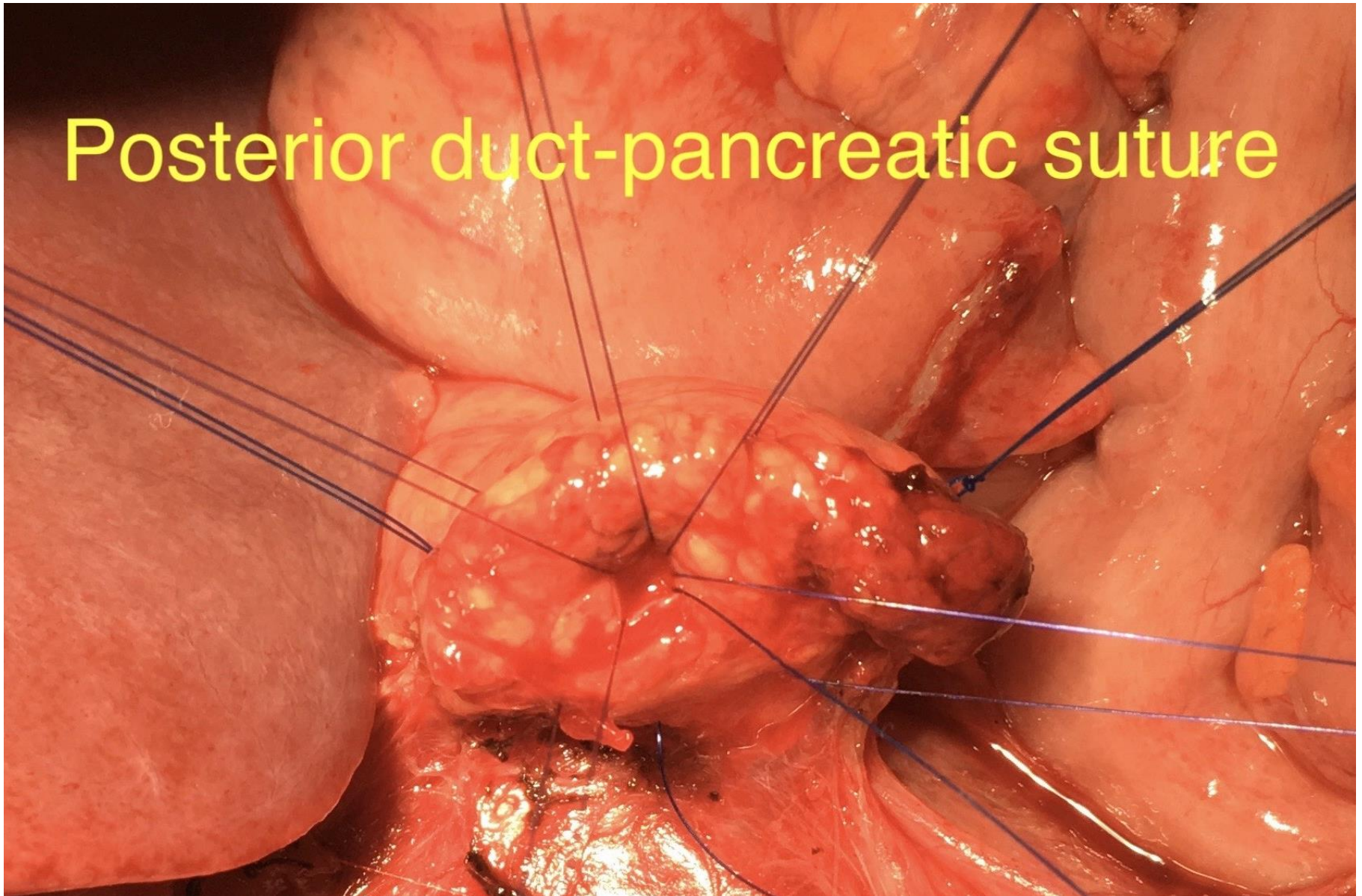


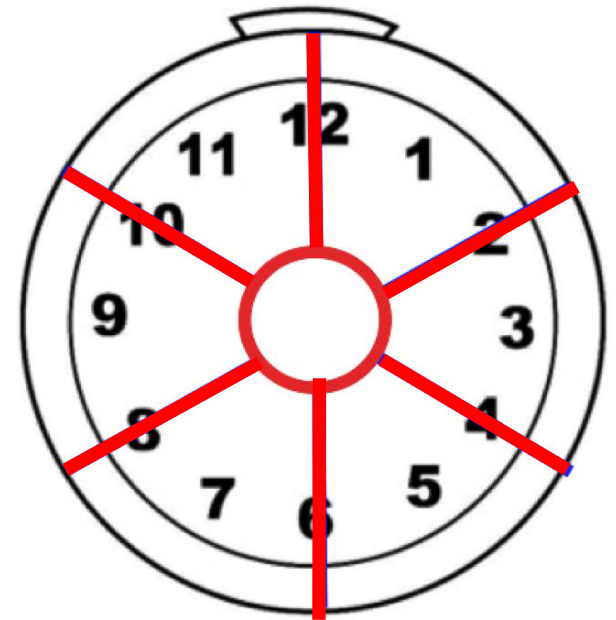
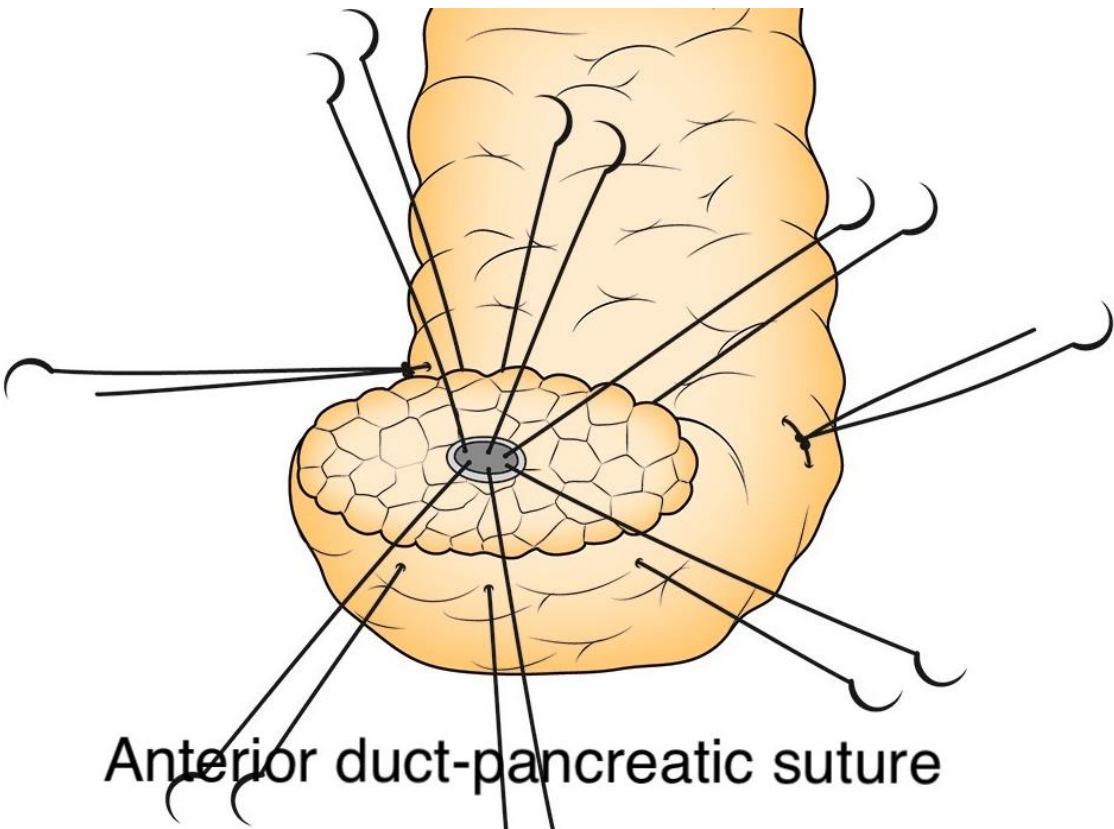
Técnica



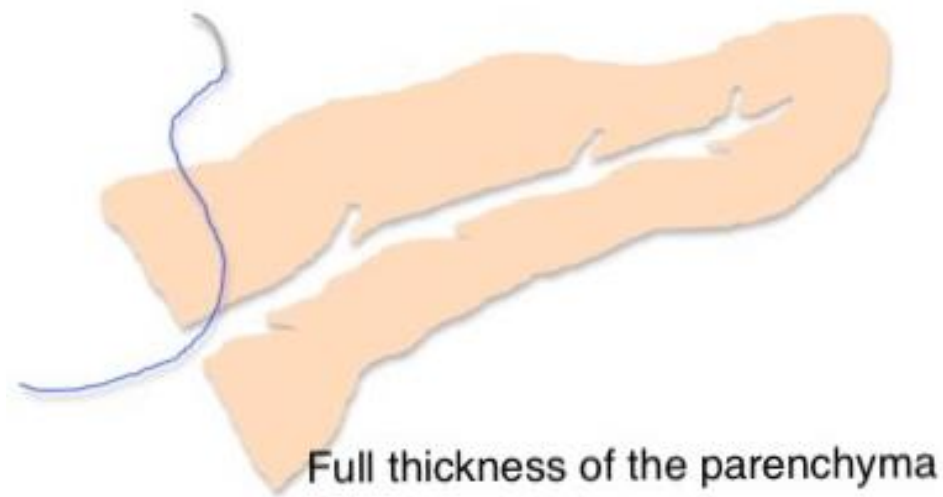
Full thickness of the parenchyma

Posterior duct-pancreatic suture

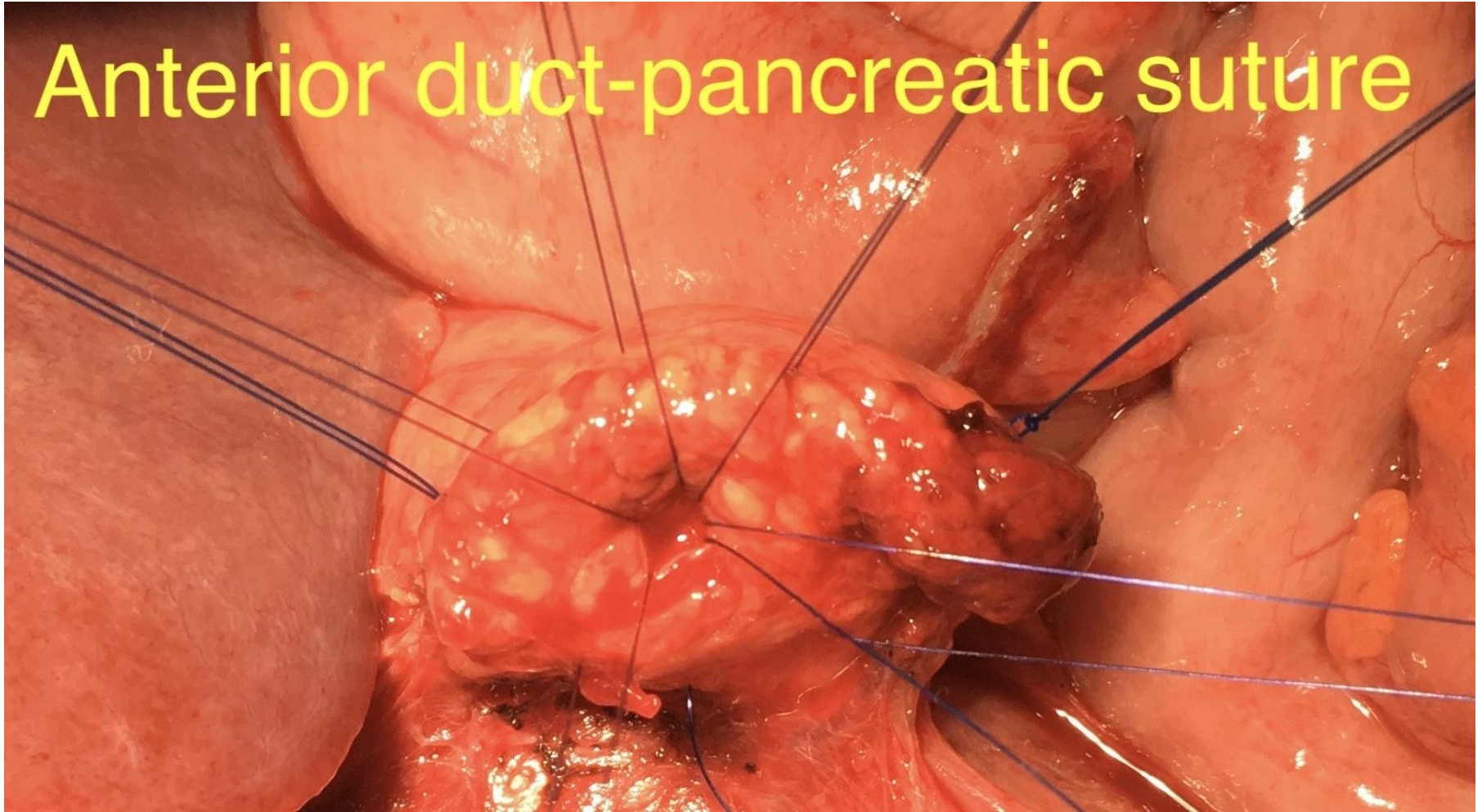




Técnica



Anterior duct-pancreatic suture

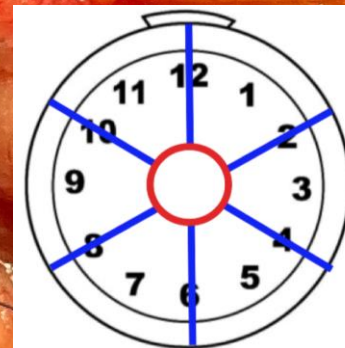
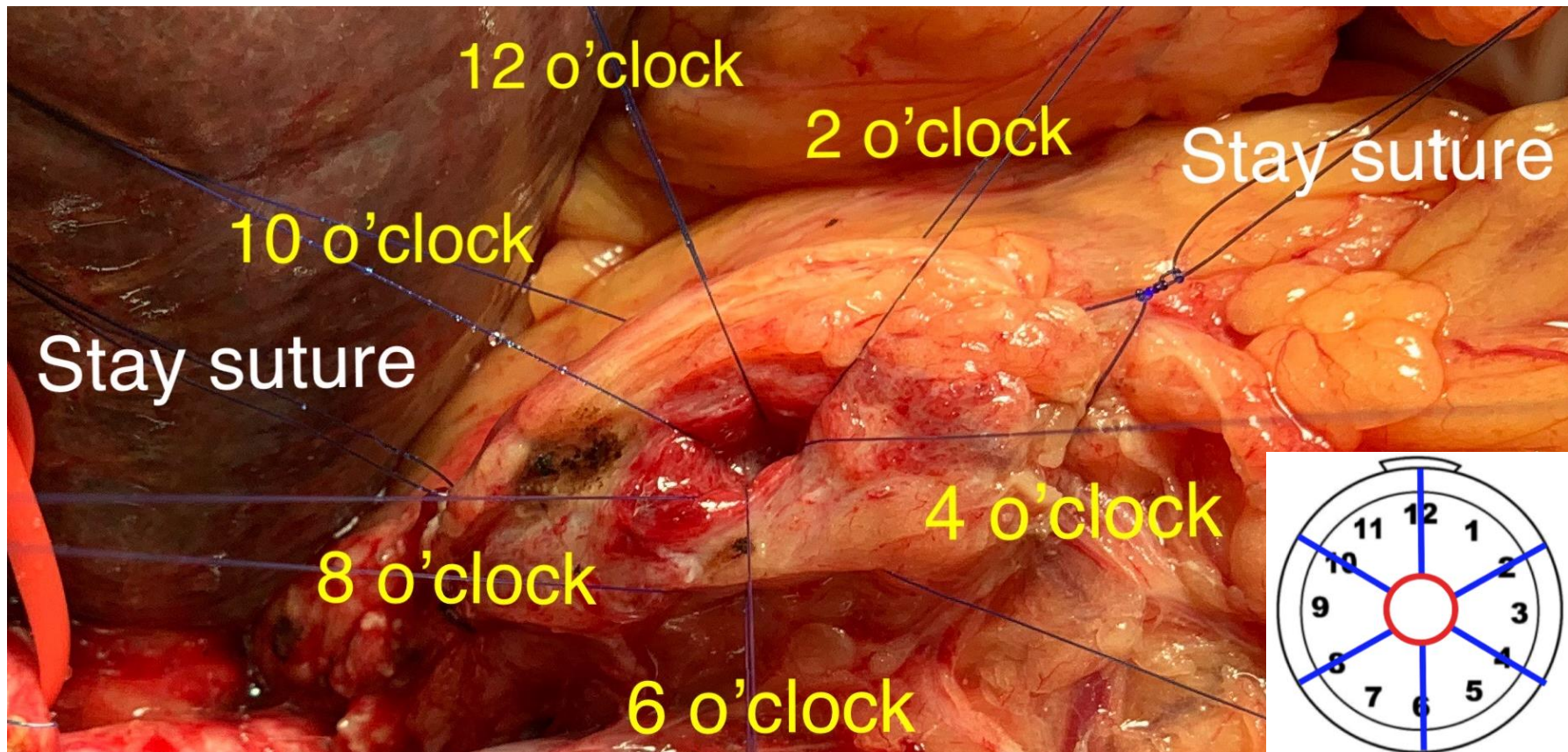


Pontos de sustentação

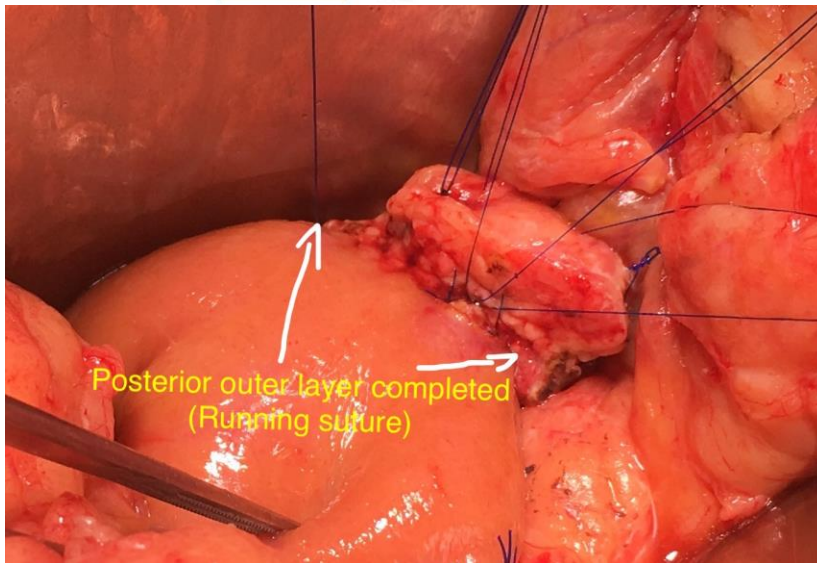
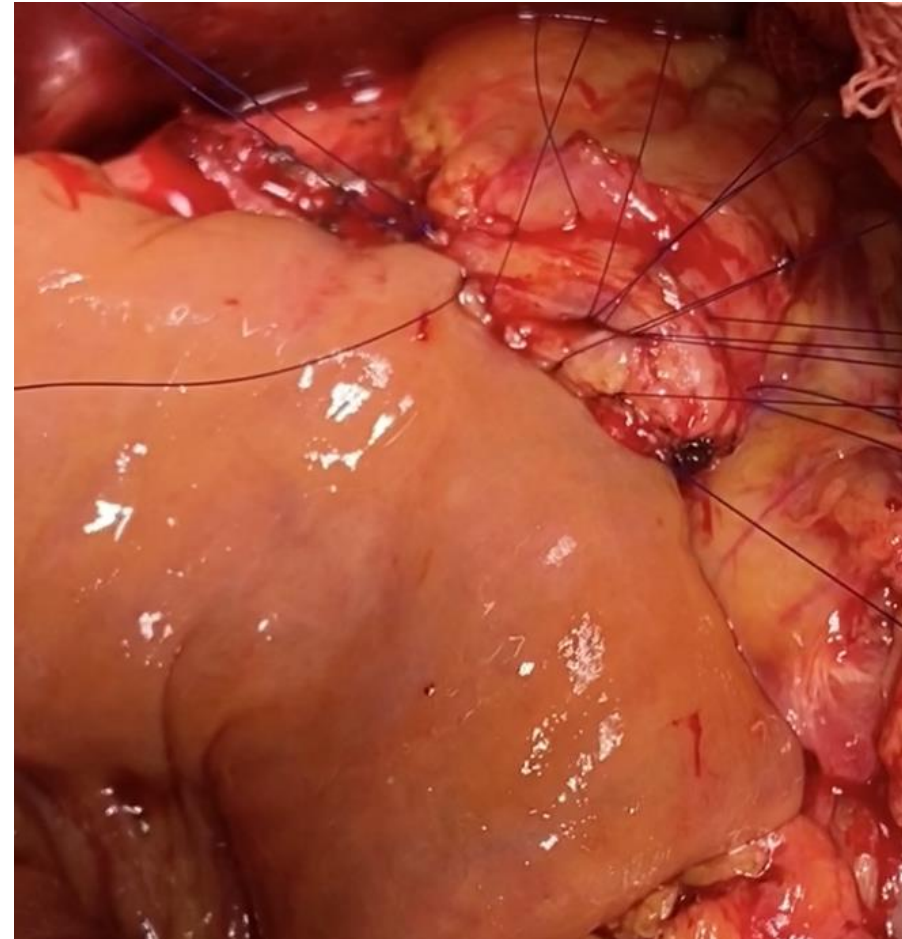
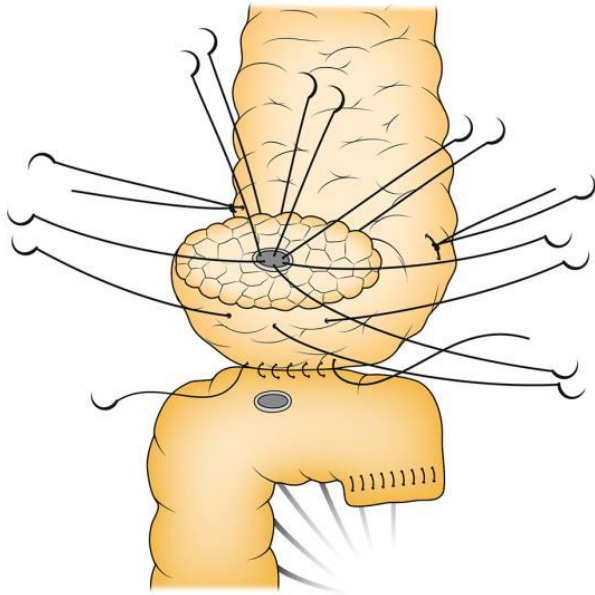
Superfície de corte
(Lâmina fria)

- ☐ Ducto
- ☐ Parênquima

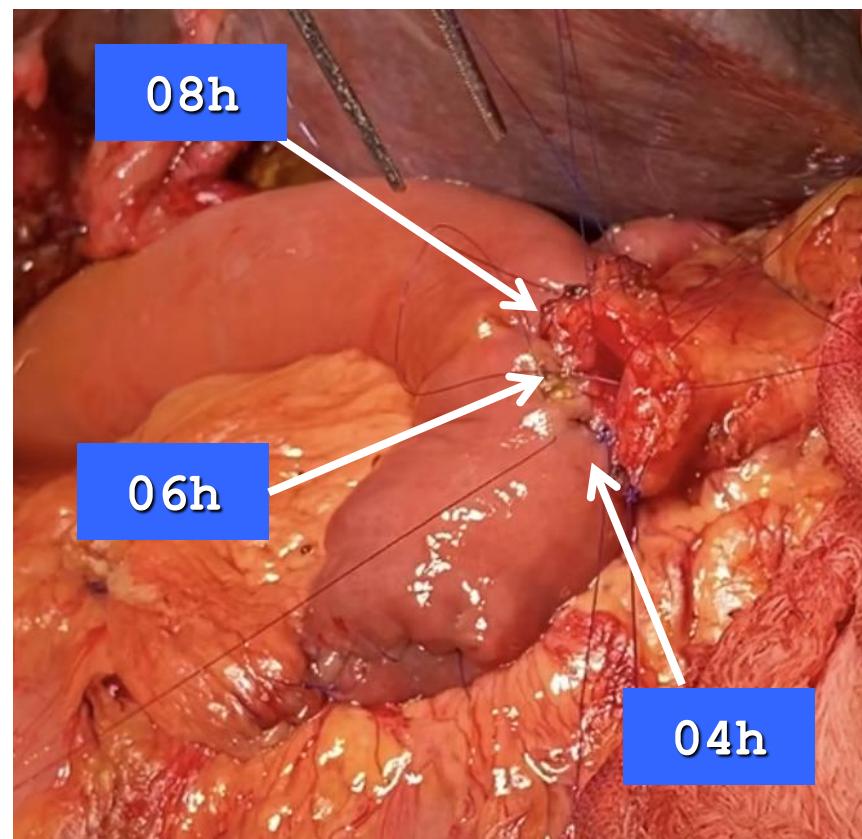
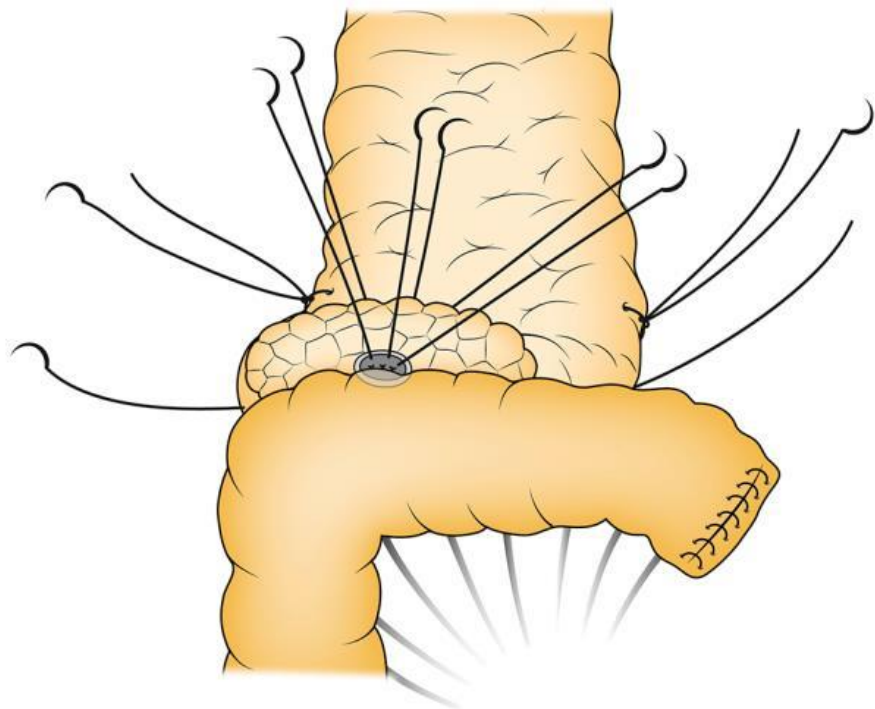
1 cm



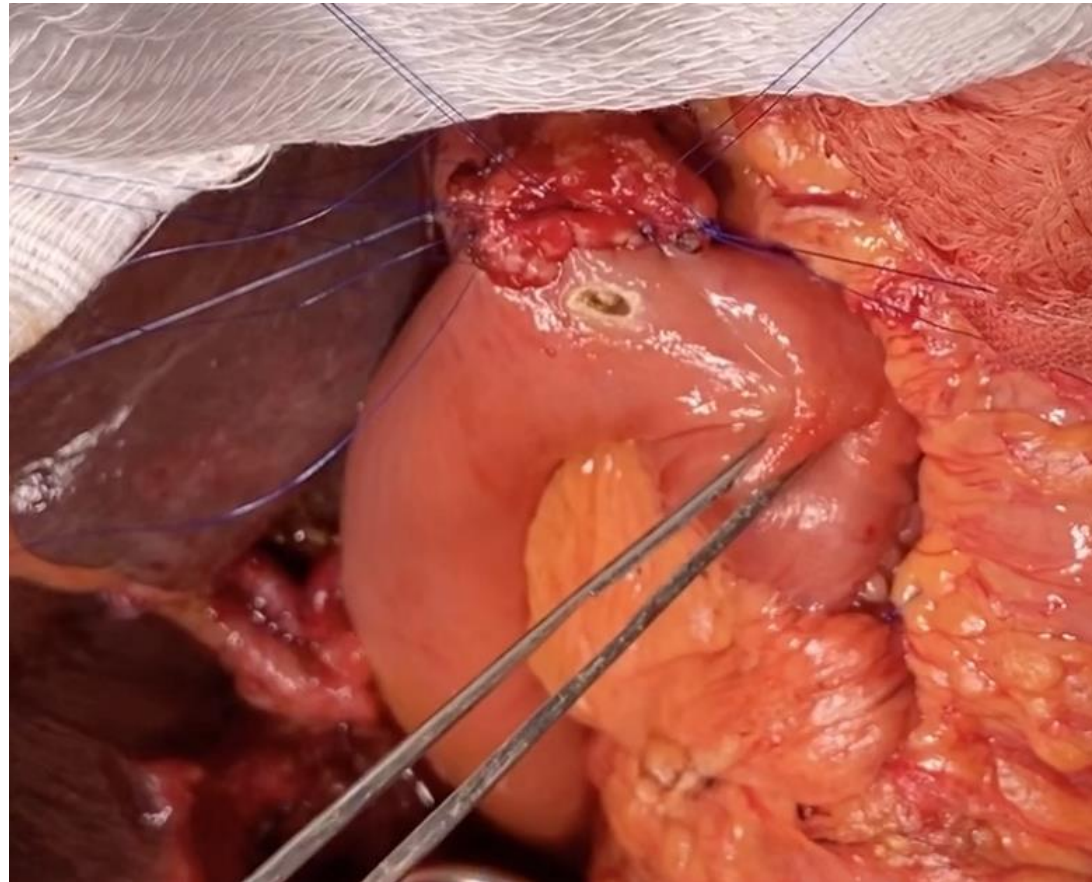
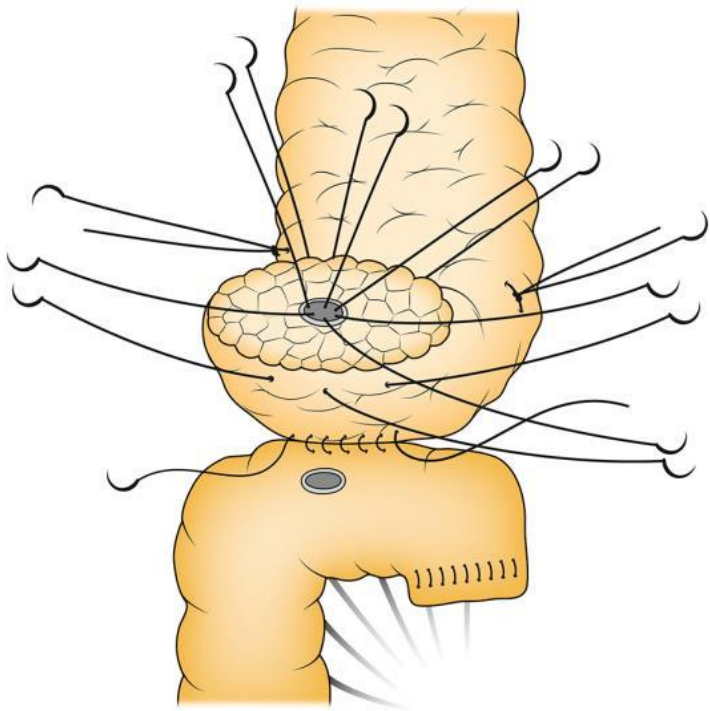
1. SUTURA CONTÍNUA POSTERIOR EXTERNA



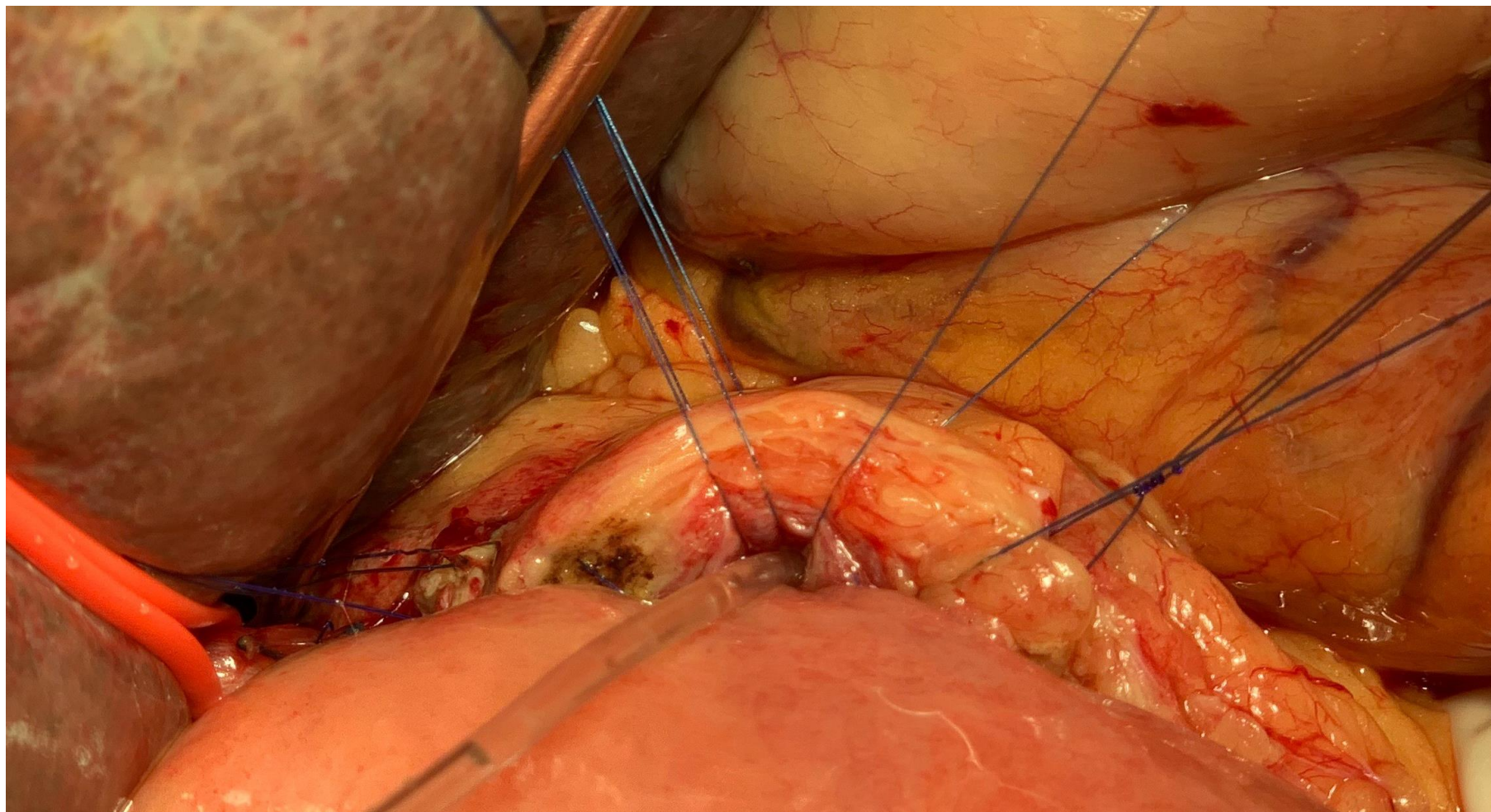
2. SUTURA SEPARADA POSTERIOR INTERNA



ABERTURA DO INTESTINO



STENT NO DUCTO PANCREÁTICO



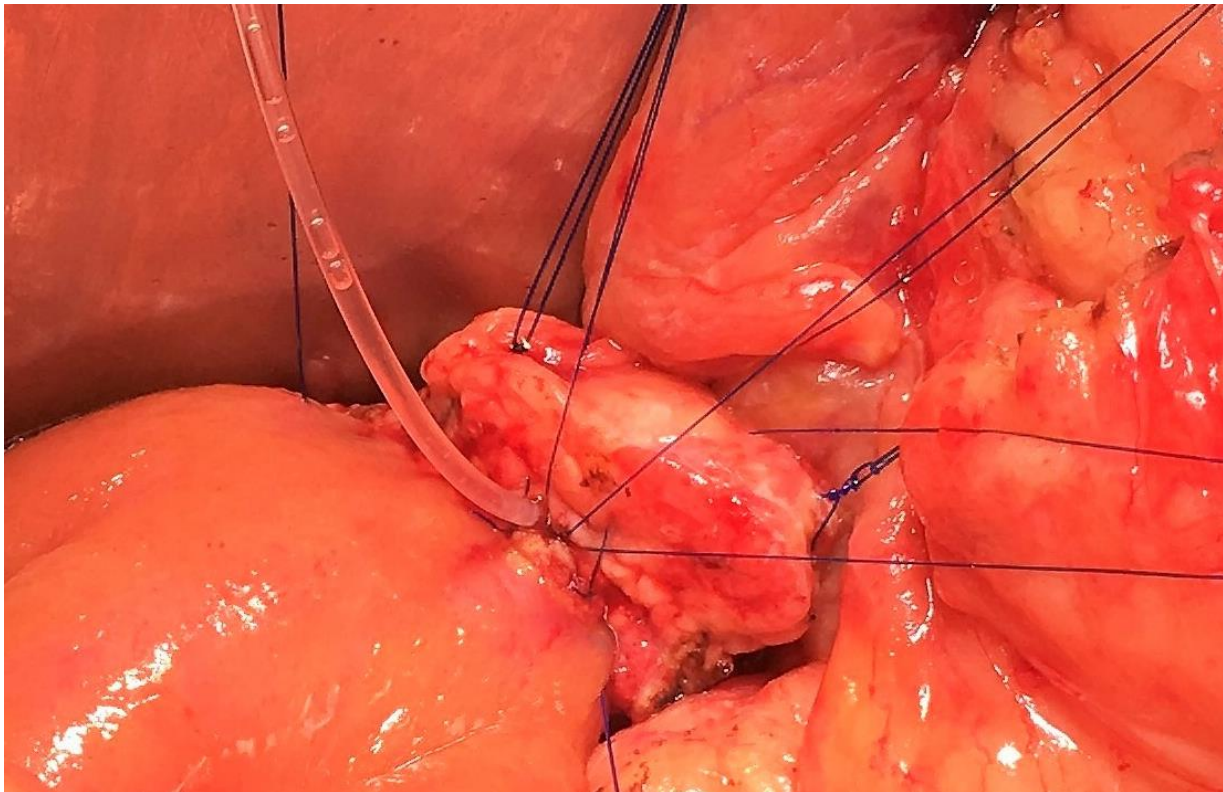
SECÇÃO DO INTESTINO DELGADO



- ☐ Desorganização da transmissão nervosa
- ☐ Manipulação excessiva da alça
- ☐ Maior paresia nas primeiras 24-48 horas
- ☐ Estase subsequente



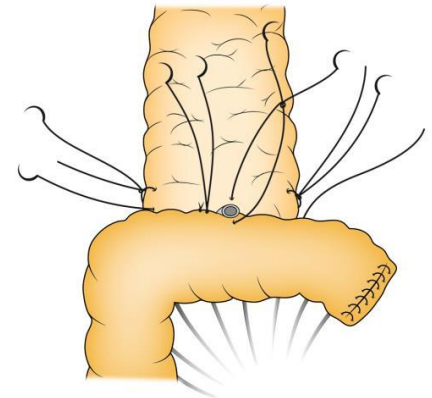
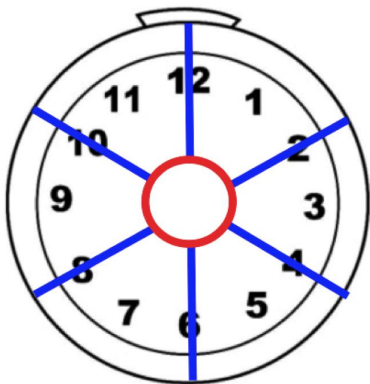
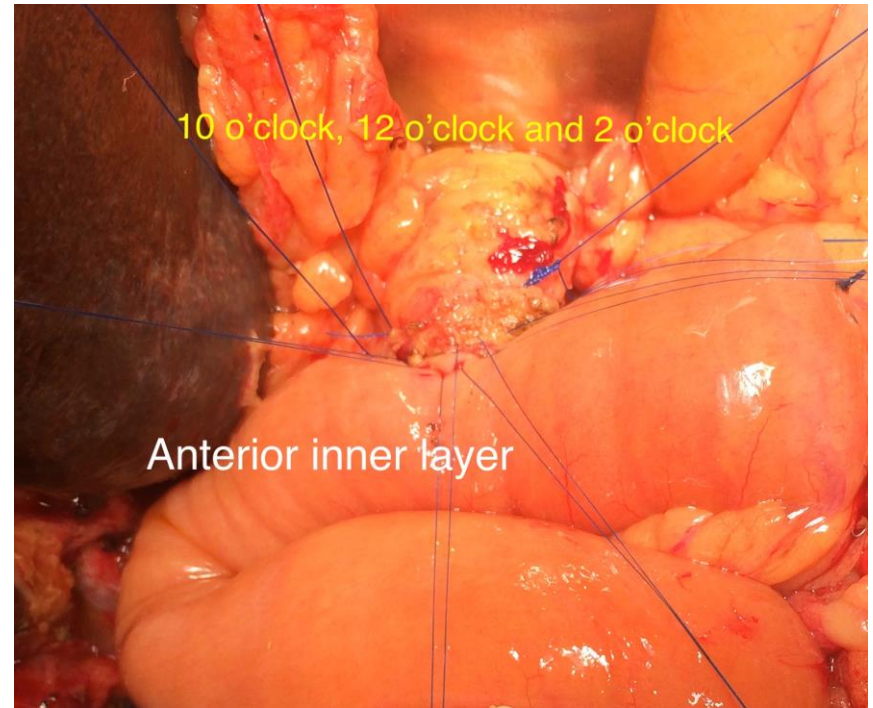
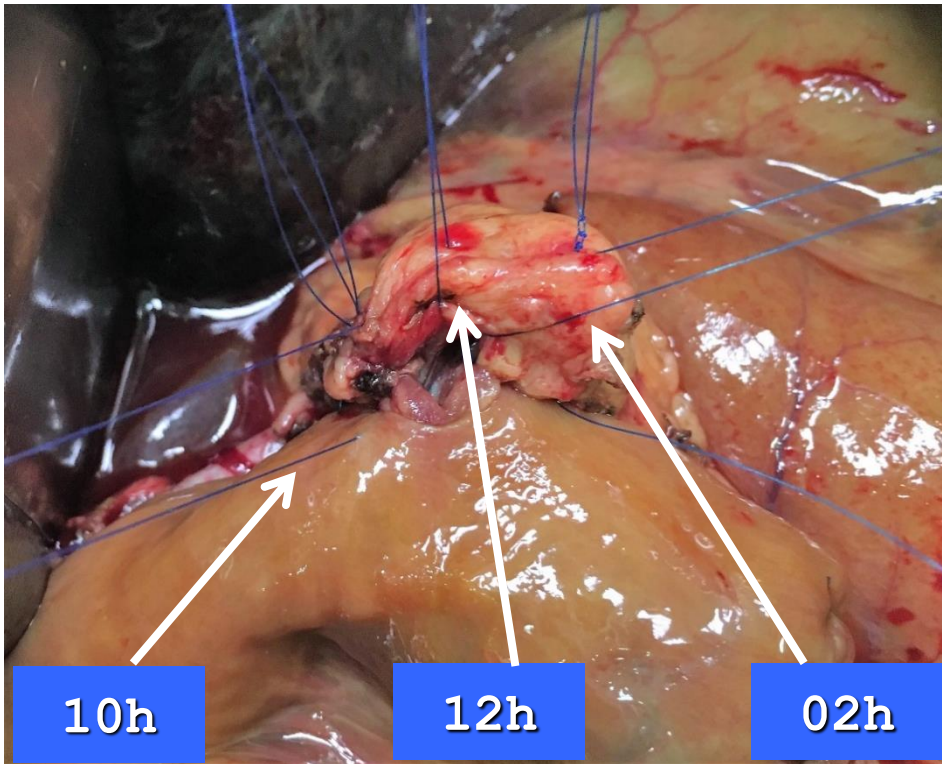
STENT



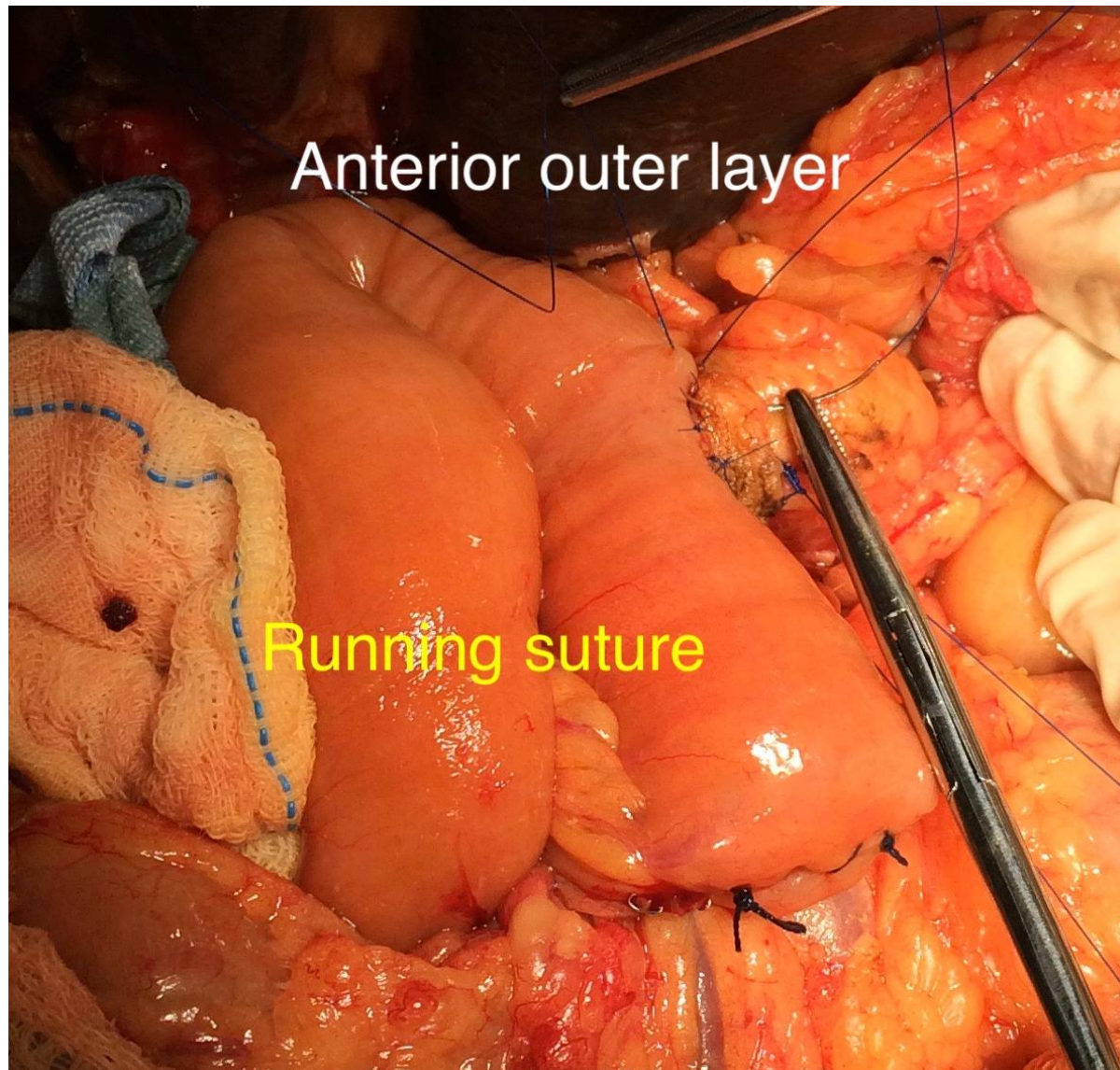
- ☐ Facilita a colocação precisa da sutura
- ☐ Deriva o suco pancreático longe do local da anastomose.
- ☐ Evita ou reduz a retenção de secreção pancreática no segmento inicial do jejunum enquanto a peristalse não está restaurada.
- ☐ Diminui o risco de oclusão inadvertida do ducto pancreático.
- ☐ Melhora a integridade da anastomose, reduzindo o risco de formação de estenose do ducto.
- ☐ Melhora a drenagem do pâncreas para a luz intestinal



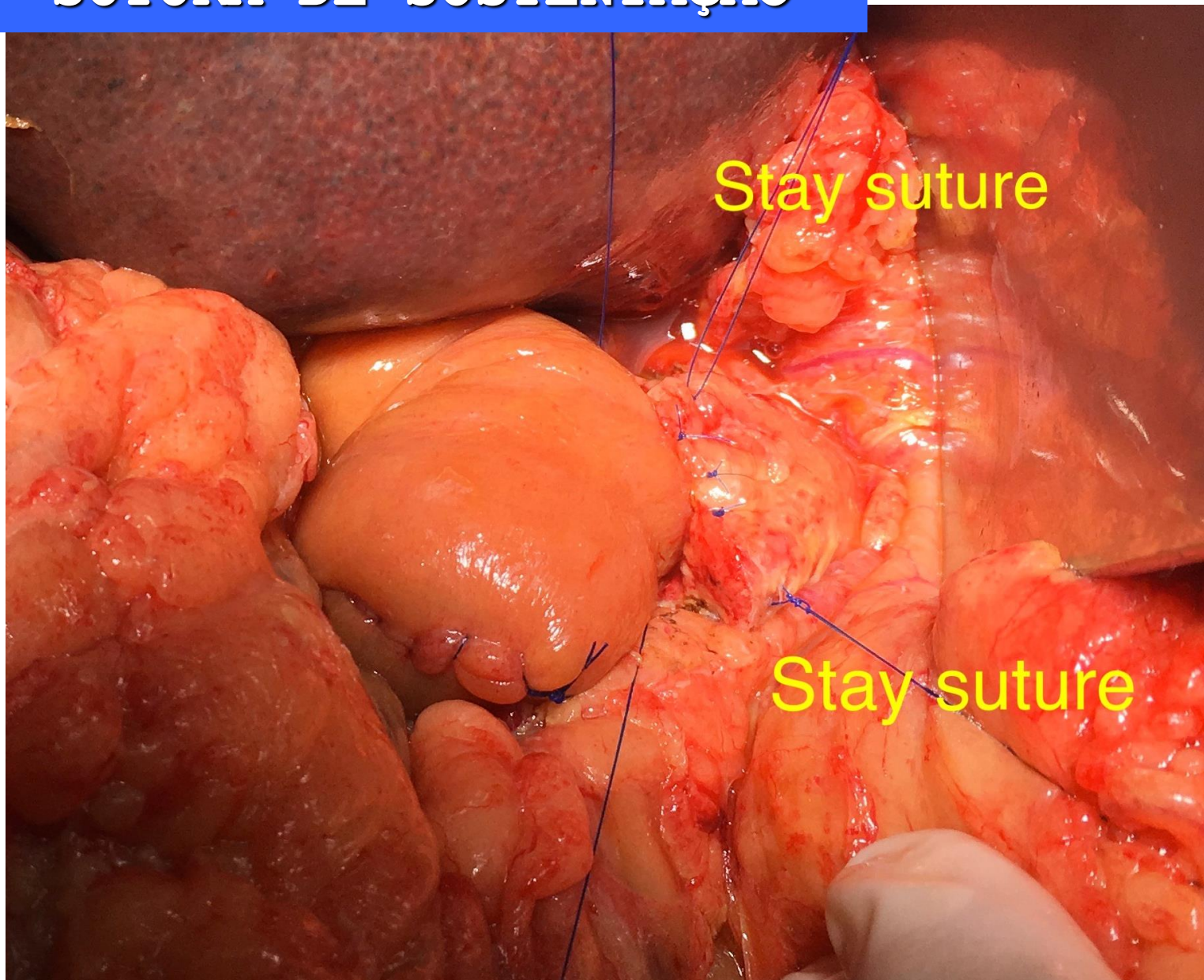
3. SUTURA SEPARADA ANTERIOR INTERNA



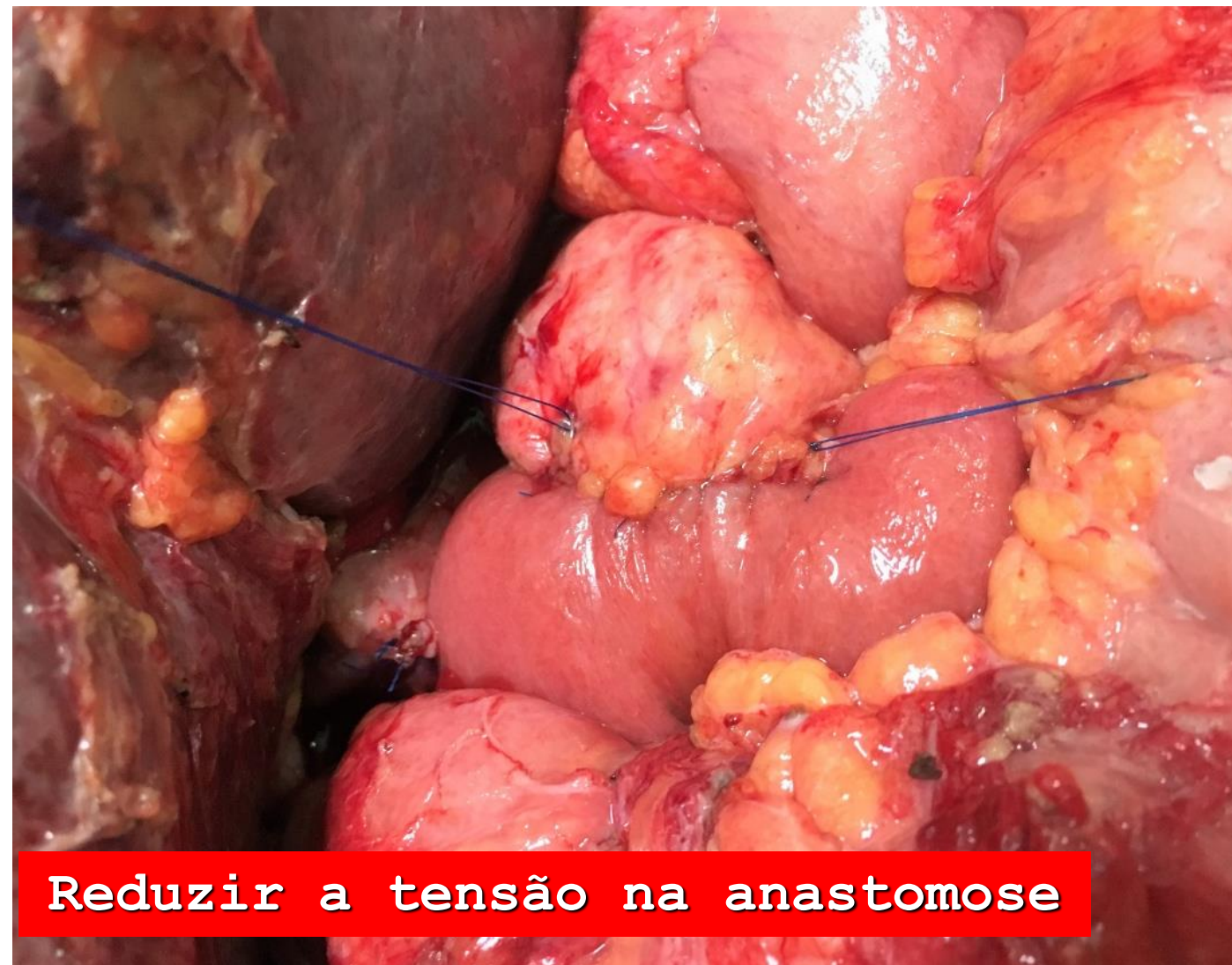
4. SUTURA CONTÍNUA ANTERIOR EXTERNA



SUTURA DE SUSTENTAÇÃO



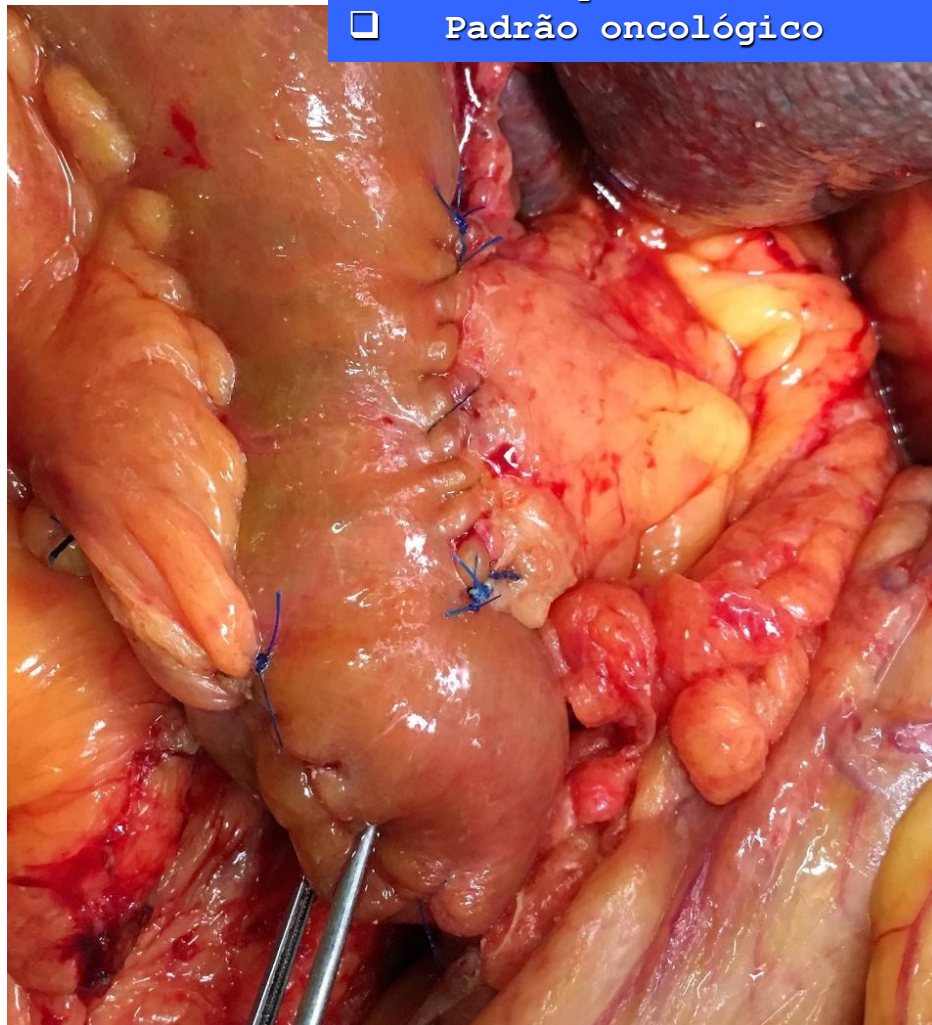
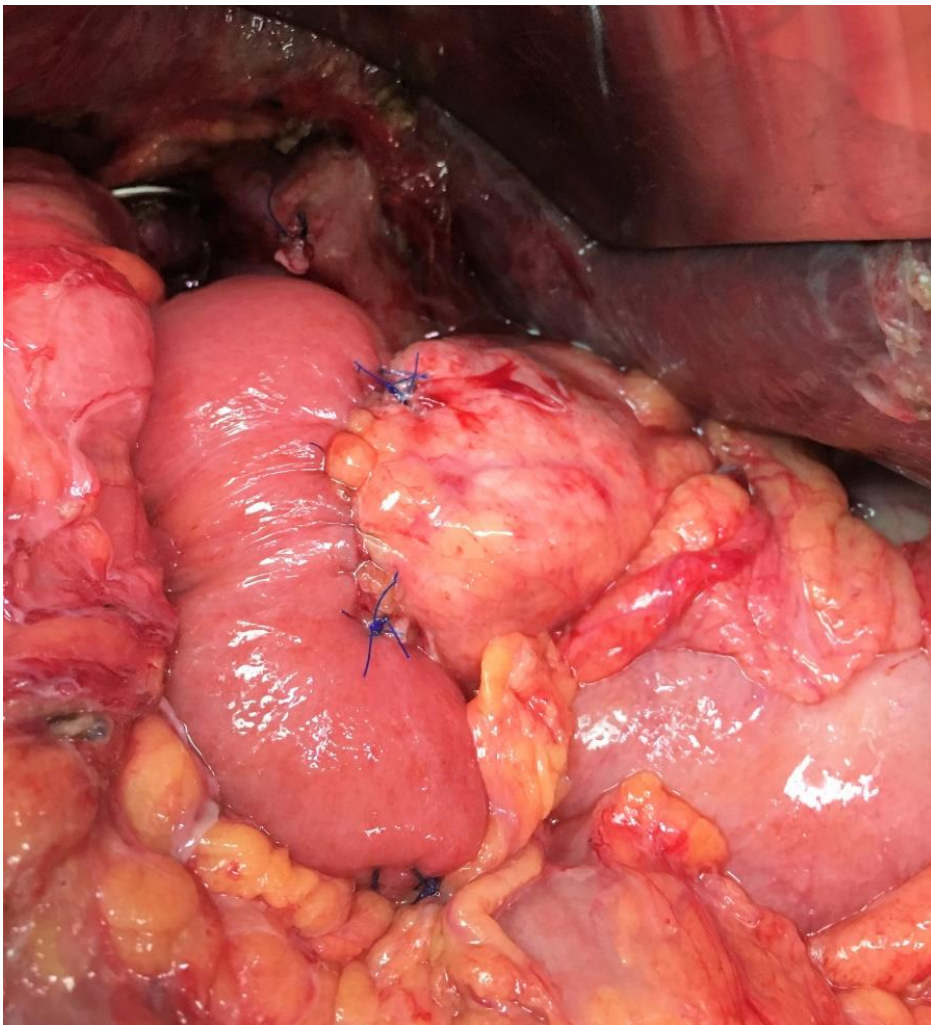
SUTURA DE SUSTENTAÇÃO



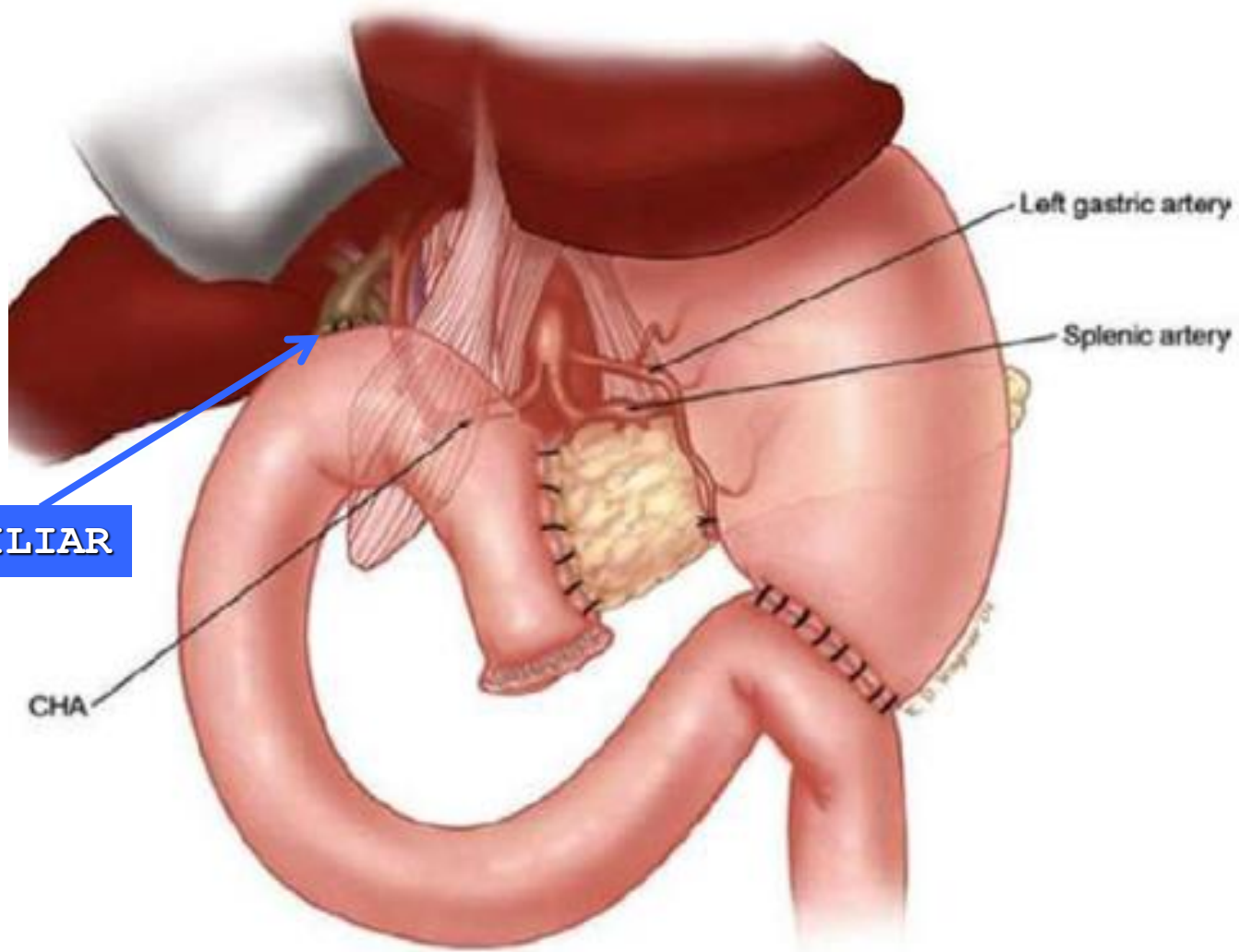
Reduzir a tensão na anastomose

ASPECTO FINAL

- ☐ Sangramento
- ☒ Fístula pancreática
- ☐ Gastroparesia
- ☐ Padrão oncológico

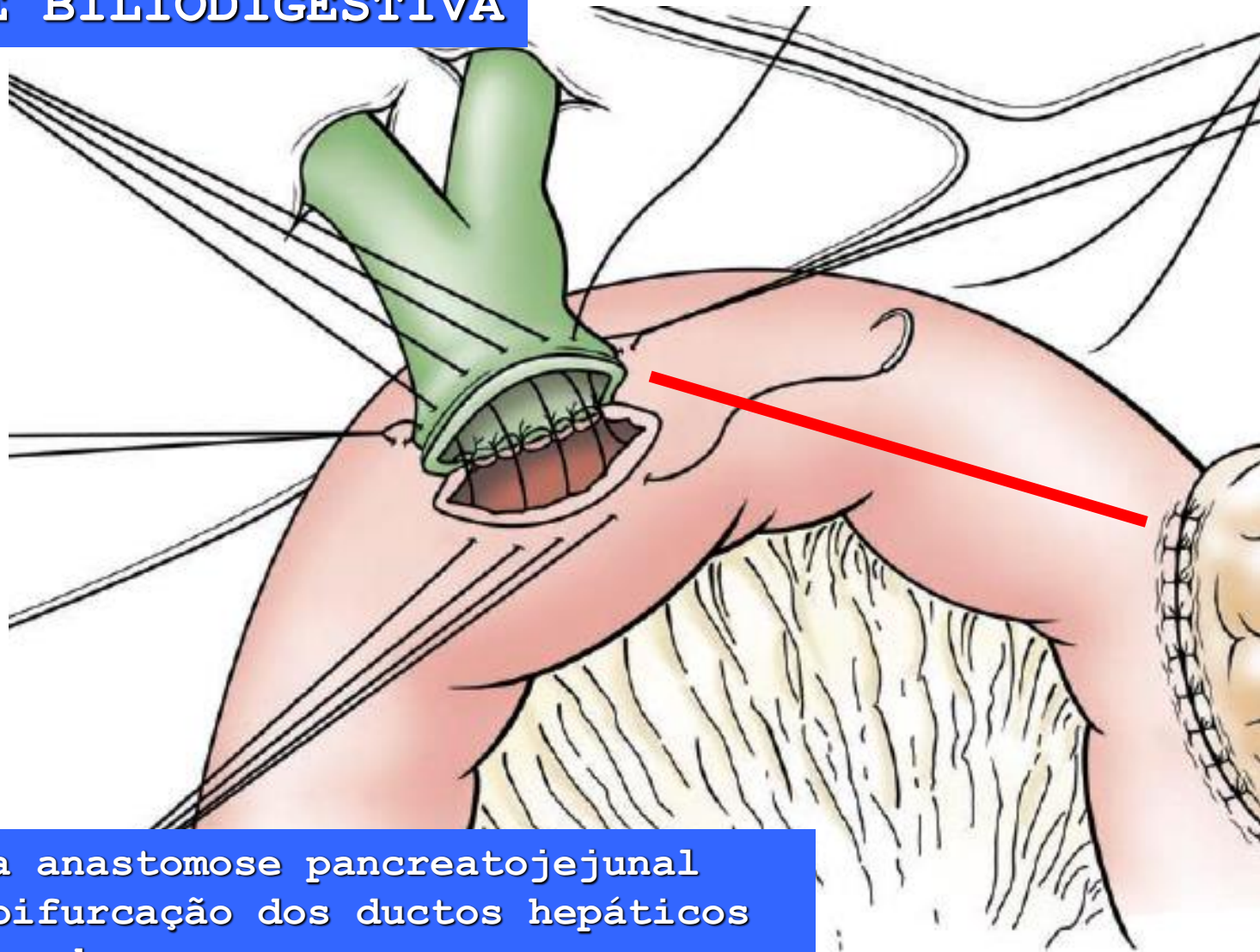


ANASTOMOSE BILIODIGESTIVA



2. VIA BILIAR

ANASTOMOSE BILIODIGESTIVA



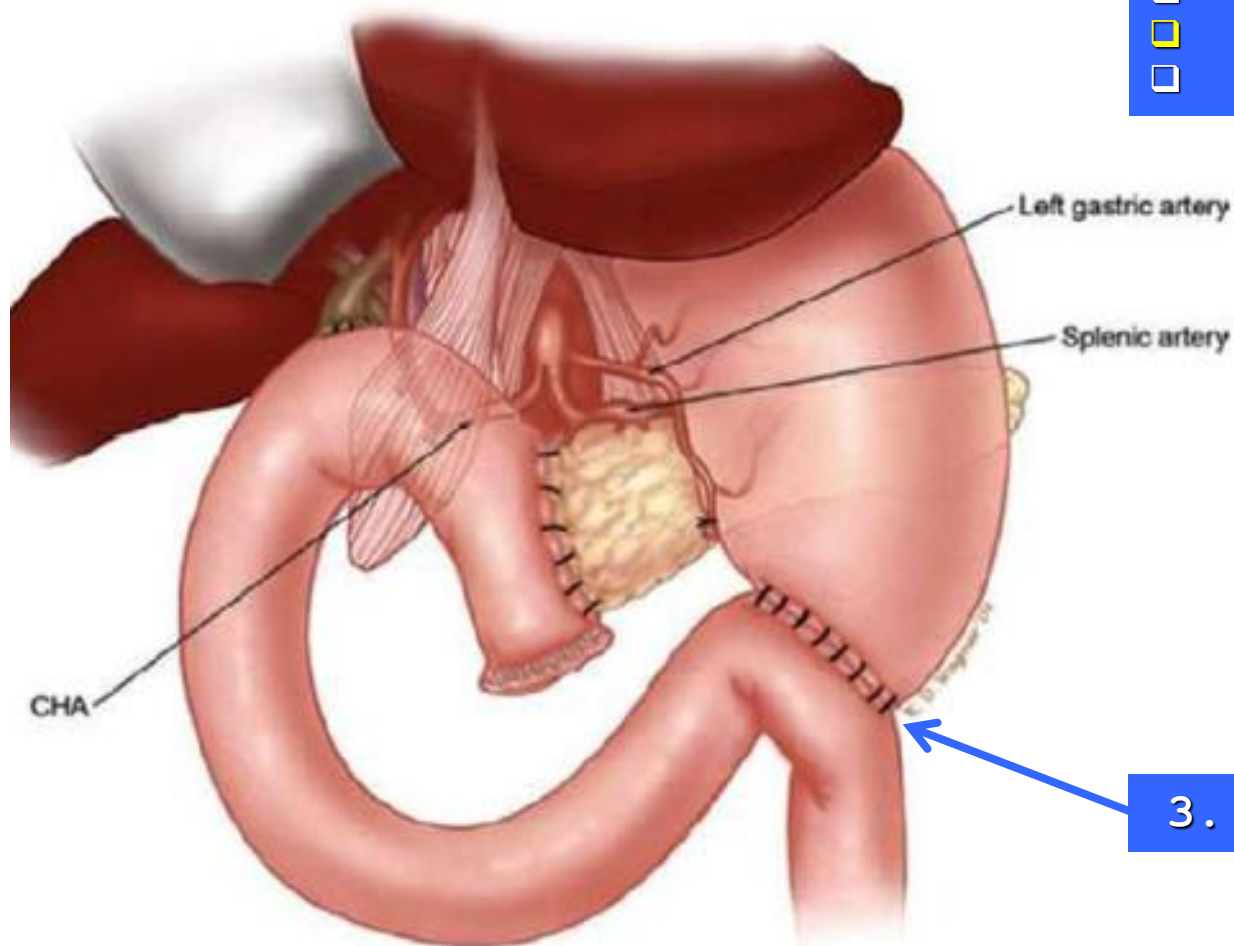
- ☐ 10-15 cm da anastomose pancreatojejunal
- ☐ < 2 cm da bifurcação dos ductos hepáticos
- ☐ Pontos separados
Via biliar ≤ 20 mm
- ☐ Pontos contínuos/separados
Via biliar > 20 mm

ANASTOMOSE BILIODIGESTIVA



GASTROENTEROANASTOMOSE

- ☐ Sangramento
- ☐ Fístula pancreática
- ☒ **Gastroparesia**
- ☐ Padrão oncológico



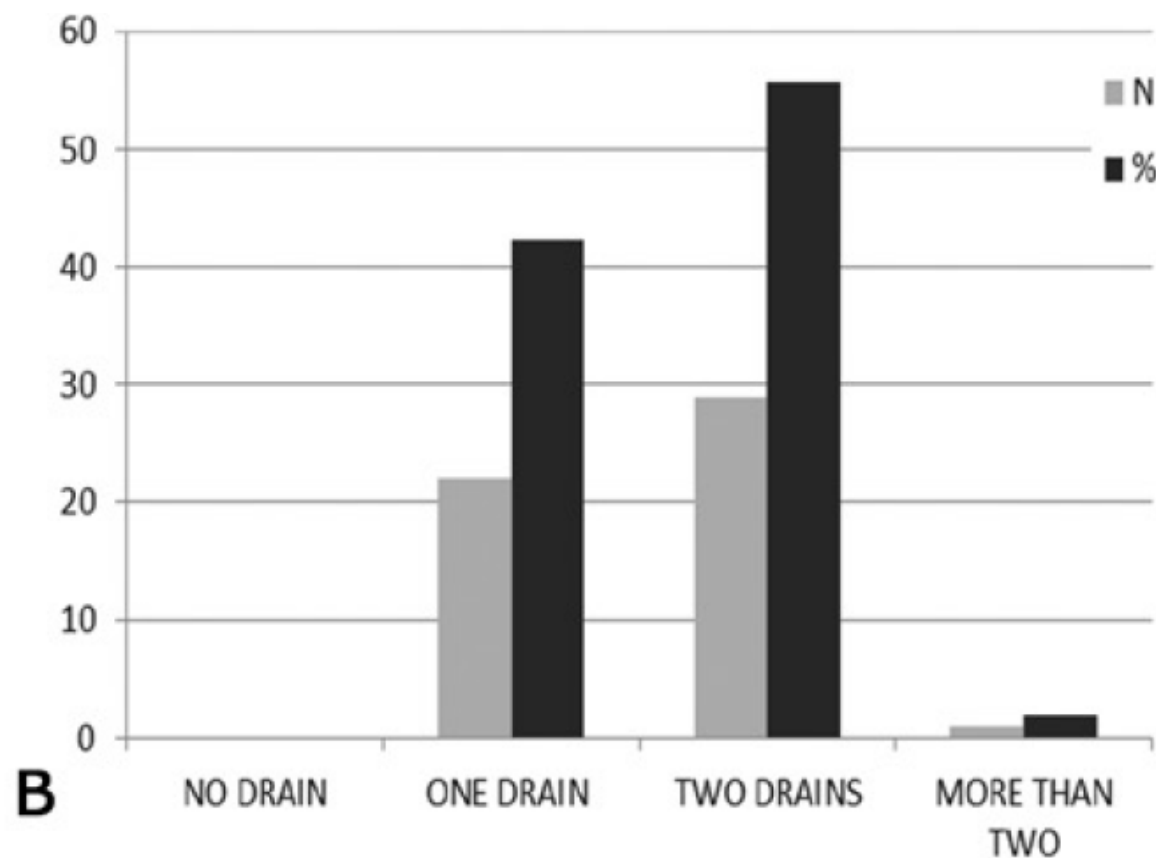
3. ESTÔMAGO

- ☐ Posição antecólica
- ☐ 50-60 cm da anastomose biliodigestiva
- ☐ Alça eferente acompanha a grande curvatura

PANCREATODUODENECTOMY: BRAZILIAN PRACTICE PATTERNS*

*Duodenopancreatectomia: prática padrão do Brasil**

Orlando Jorge M **TORRES**¹, Eduardo de Souza M **FERNANDES**², Rodrigo Rodrigues **VASQUES**¹, Fabio Luís **WAECHTER**³,
Paulo Cezar G. **AMARAL**⁴, Marcelo Bruno de **REZENDE**⁵, Roland Montenegro **COSTA**⁶, André Luís **MONTAGNINI**⁷





Obrigado!

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