XXXII CONGRESSO BRASILEIRO DE
CIRURGIA


# CÂNCER DO PÂNCREAS
## Situação atual do tratamento cirúrgico

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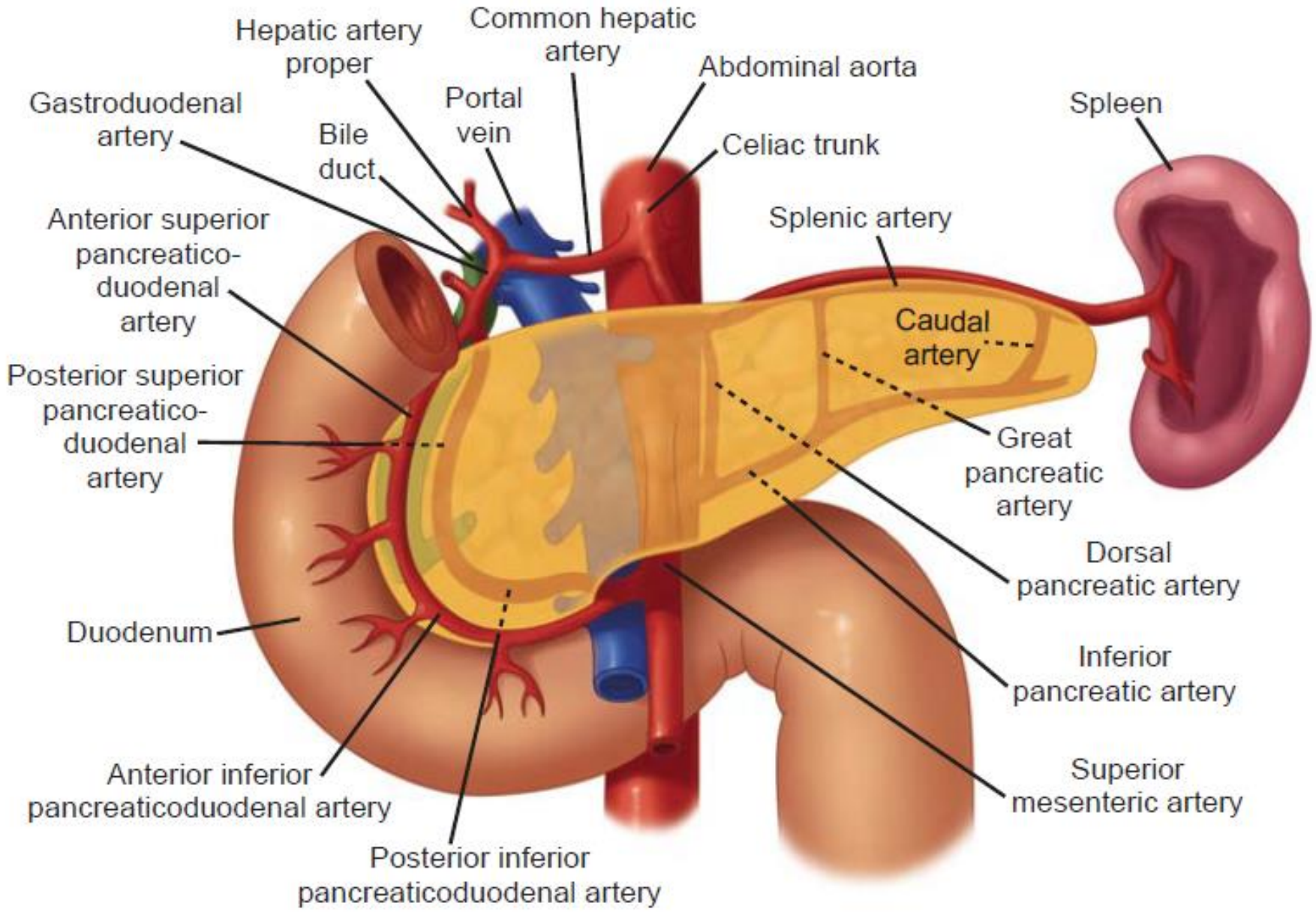
Universidade Federal do Maranhão




Fisher WE, et al 2014

## TABLE 33-20 World Health Organization classification of primary tumors of the exocrine pancreas

A. Benign
   1. Serous cystadenoma (16%)
   2. Mucinous cystadenoma (45%)
   3. Intraductal papillary-mucinous adenoma (32%)
   4. Mature cystic teratoma

B. Borderline
   1. Mucinous cystic tumor with moderate dysplasia
   2. Intraductal papillary mucinous tumor with moderate dysplasia
   3. Solid pseudopapillary tumor

C. Malignant
   1. Ductal adenocarcinoma
   2. Serous/mucinous cystadenocarcinoma (29%)
   3. Intraductal mucinous papillary tumor

Fisher WE, et al 2014

# Neoplasias císticas do pâncreas

**IPMN** **Frantz**

| | Serous cystic neoplasm | Mucinous cystic neoplasm | Intraductal papillary mucinous neoplasm | Solid-pseudopapillary neoplasm |
|---|---|---|---|---|
| Mean age (years) | 65 | 45 | 63 | 28 |
| Gender (male:female) | 30:70 | 10:90 | 60:40 | 10:90 |
| Location within the pancreas | Evenly distributed | Body and tail | Head | Evenly distributed |
| Cyst contents | Watery straw colored fluid | Thick tenacious mucin | Thick tenacious mucin | Hemorrhagic |
| Connectivity to larger pancreatic ducts | No | No | Yes | No |
| Epithelial lining | Cuboidal, glycogen rich | Columnar, mucinous | Columnar, mucinous | Noncohesive uniform cells |
| Stroma | Nonspecific | Ovarian-type | Nonspecific | Delicate capillaries |

Beger HG, Matsuno S, Cameron JL, 2010

# Neoplasias císticas do pâncreas

**Table 2 Differential diagnosis of cystic pancreatic lesions**

| | SCA | MCN | IPMN | SPN | Pseudocyst |
|---|---|---|---|---|---|
| Prevalent age | Middle age | Middle age | Elderly | Young | Variable |
| Sex | Mostly female | Mostly female | Male > female | Mostly female | Male > female |
| Presentation | Mass/pain | Mass/pain | Pancreatitis | Mass/pain | Pain |
| Location | Evenly | Body/tail | Head | Evenly | Evenly |
| Malignant potential | Very low | Moderate to high | Low to high | Low | None |

SCA: Serous cystadenoma; MCN: Mucinous cystic neoplasm; IPMN: Intraductal papillary mucinous neoplasia; SPN: Solid pseudopapillary neoplasm.

Habashi S, et al. World J Gastroenterol 2009;15:38-47

# Neoplasias císticas do pâncreas

**Table 3 Cystic fluid analysis in cystic pancreatic diseases**

| | SCA | MCN | MCAC | Pseudocyst |
|---|---|---|---|---|
| CEA | Low | High | High | Low |
| CA125 | Variable | Variable | High | Low |
| CA19-9 | Variable | Variable-high | Variable-high | Variable |
| Amylase | Low-high | Low-high | Low-high | High |
| Lipase | Low | Low | Low | High |

SCA: Serous cystadenoma; MCN: Mucinous cystic neoplasm; MCAC: Mucinous cystadenocarcinoma

Habashi S, et al. World J Gastroenterol 2009;15:38-47

# Neoplasias císticas do pâncreas

**Table 1.** WHO classification (2010) of pancreatic cystic neoplasms

| Serous cystic neoplasm | Mucinous cystic neoplasm | Intraductal papillary mucinous neoplasm | Solid pseudopapillary neoplasm |
|---|---|---|---|
| Serous cystadenoma<br>– Serous microcystic adenoma<br>– Serous oligocystic adenoma | Mucinous cystadenoma | Intraductal papillary mucinous adenoma | Solid pseudopapillary neoplasm |
| Serous cystadenocarcinoma | Mucinous cystic neoplasm with moderate dysplasia | Intraductal papillary mucinous neoplasm with moderate dysplasia | Solid pseudopapillary carcinoma |
| | Mucinous cystadenocarcinoma<br>– Noninvasive<br>– Invasive | Intraductal papillary mucinous carcinoma<br>– Noninvasive<br>– Invasive | |

Spence RAJ, et al. Dig Surg 2011;28:386-97

# Neoplasias císticas do pâncreas

**Table 2.** Imaging and cyst fluid characteristics of cystic lesions of pancreas

| Pancreatic cystic lesion | Imaging characteristics | Fluid analysis |
|---|---|---|
| Pseudocyst | Usually associated with pancreatitis<br>Unilocular<br>Uniform, enhancing, well-defined walls<br>Peripancreatic inflammation<br>May communicate with pancreatic duct | ↓ Viscosity<br>↓ Lipase<br>↑ Amylase<br>↔/↑ CEA levels |
| Serous cystic lesion | Microcystic<br>Honeycomb pattern of microlacunae<br>Stellate scar<br>Central calcifications – starburst appearance | ↓ Viscosity<br>↓ CEA<br>↓ CA19-9<br>↓ Amylase |
| Mucinous cystic lesion | Typically unilocular but can be multilocular<br>Body/tail of the pancreas<br>Macrocystic<br>No duct communication<br>Peripheral 'eggshell' calcifications | ↑ Viscosity<br>↑ CEA<br>↑ CA19-9<br>↓ Amylase |
| IPMN | Macrocystic<br>Ductal involvement<br>– Main duct: dilatated, tortuous main pancreatic duct<br>– Branch duct: lobulated lesion with grape-like clusters | ↑ Viscosity<br>↑ CEA<br>↑ Amylase |

Spence RAJ, et al. Dig Surg 2011;28:386-97

# Fatores de risco

- Idade
- Sexo masculino
- Raça negra
- Judeus (descendentes)

Eskander MF, et al. Curr Probl Surg 2016;53:107-54

# Fatores de risco

- Hereditariedade (10%)
  - Síndrome de Lynch
  - Síndrome de Peutz-Jeghers
  - Pancreatite hereditária
  - Câncer de mama familiar
  - Câncer de ovário familiar
- Tabagismo
- Diabetes
- Pancreatite crônica

Eskander MF, et al. Curr Probl Surg 2016;53:107-54

Table 60.1 General features of pancreatic tumors.

| Type | Frequency | Prognosis |
|---|---|---|
| *Solid tumors* | | |
| Ductal adenocarcinoma and variants | 90% | Unfavorable |
| Acinar cell carcinoma | 1% | Unfavorable* |
| Pancreatoblastoma | <1% | Unfavorable* |
| Endocrine tumors | 2% | Intermediate† |
| Nonepithelial tumors | Rare | Intermediate† |
| *Cystic tumors* | | |
| Intraductal papillary mucinous neoplasm | 2% | Good |
| Mucinous cystic neoplasm | 1% | Good |
| Serous cystic neoplasm | 1% | Good |
| Solid pseudopapillary neoplasm | <1% | Good |
| Other cystic tumors | 1% | Intermediate† |
| Nonepithelial lesions and tumors | Rare | Intermediate† |

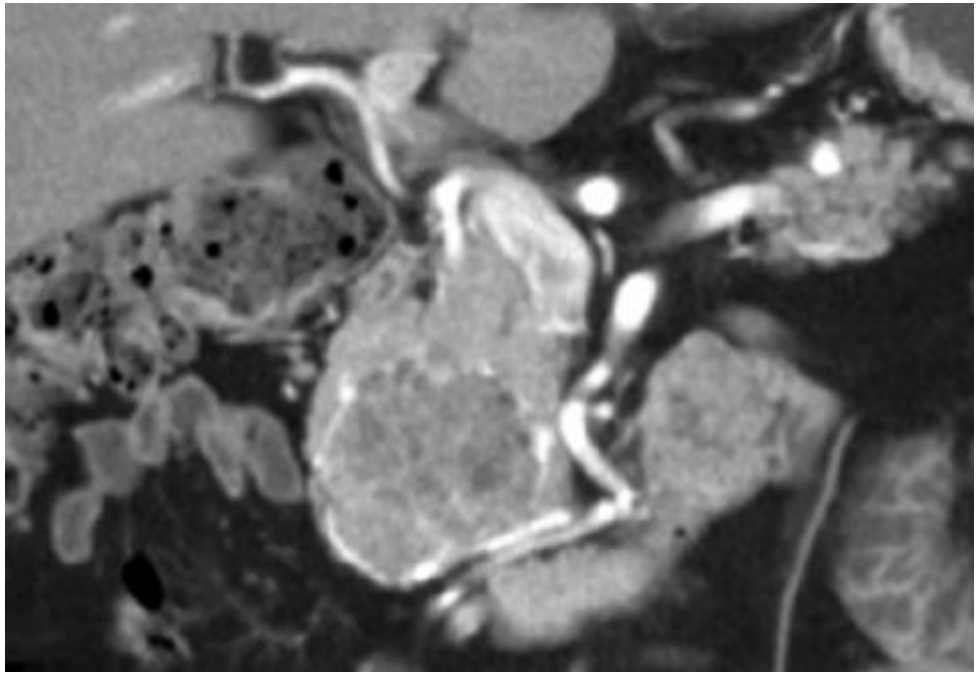
Beger HG, et al. The pancreas, 2° edition - 2008

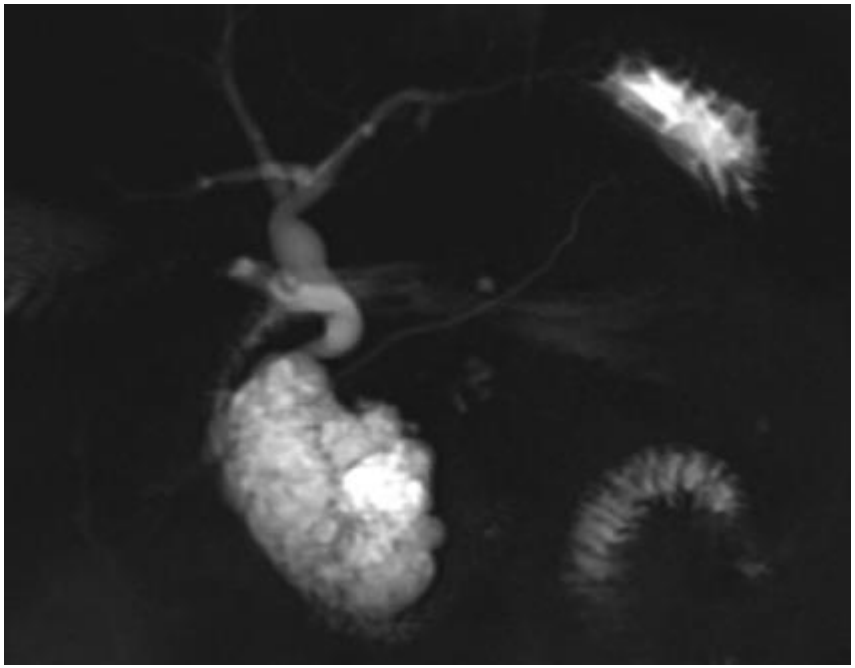
# Neoplasias císticas do pâncreas

| Histological Classification of Pancreatic Cystic Tumours |
|---|
| Benign |
| Acinar cell cystadenoma |
| Serous cystadenoma |
| Premalignant lesions |
| Intraductal papillary mucinous neoplasms with low- or intermediate-grade dysplasia |
| Intraductal papillary mucinous neoplasms with high-grade dysplasia |
| Intraductal tubulopapillary neoplasms |
| Mucinous cystic neoplasms with low- or intermediate-grade dysplasia |
| Mucinous cystic neoplasms with high-grade dysplasia |
| Malignant |
| Acinar cell cystoadenocarcinoma |
| Intraductal papillary mucinous neoplasms with an associated invasive carcinoma |
| Mucinous cystic neoplasms with an associated invasive carcinoma |
| Serous cystoadenocarcinoma |
| Solid-pseudopapillary neoplasms |

Pulvirenti A, et al. Indian J Surg 2015;77:387-92

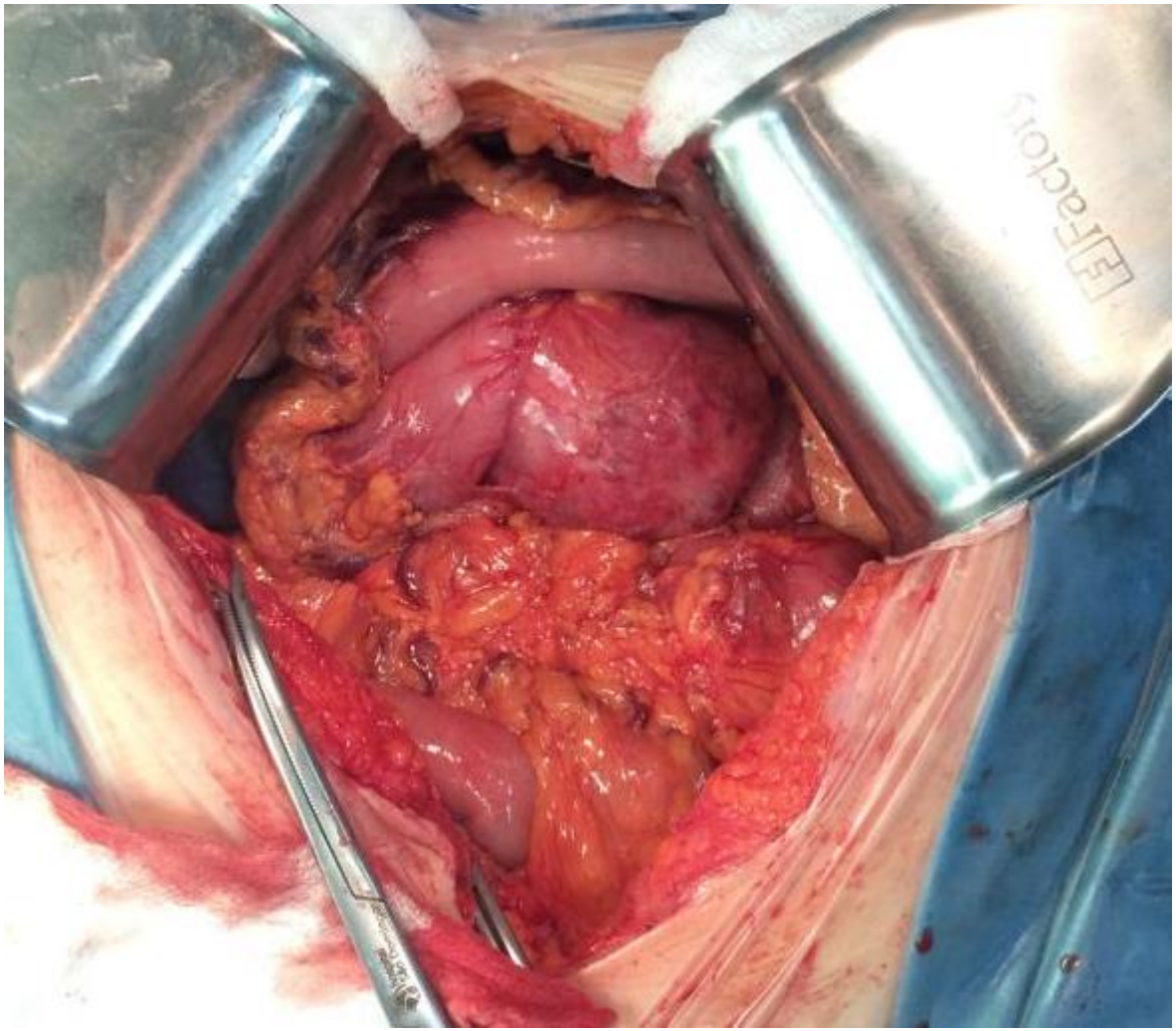
# Cistoadenoma seroso





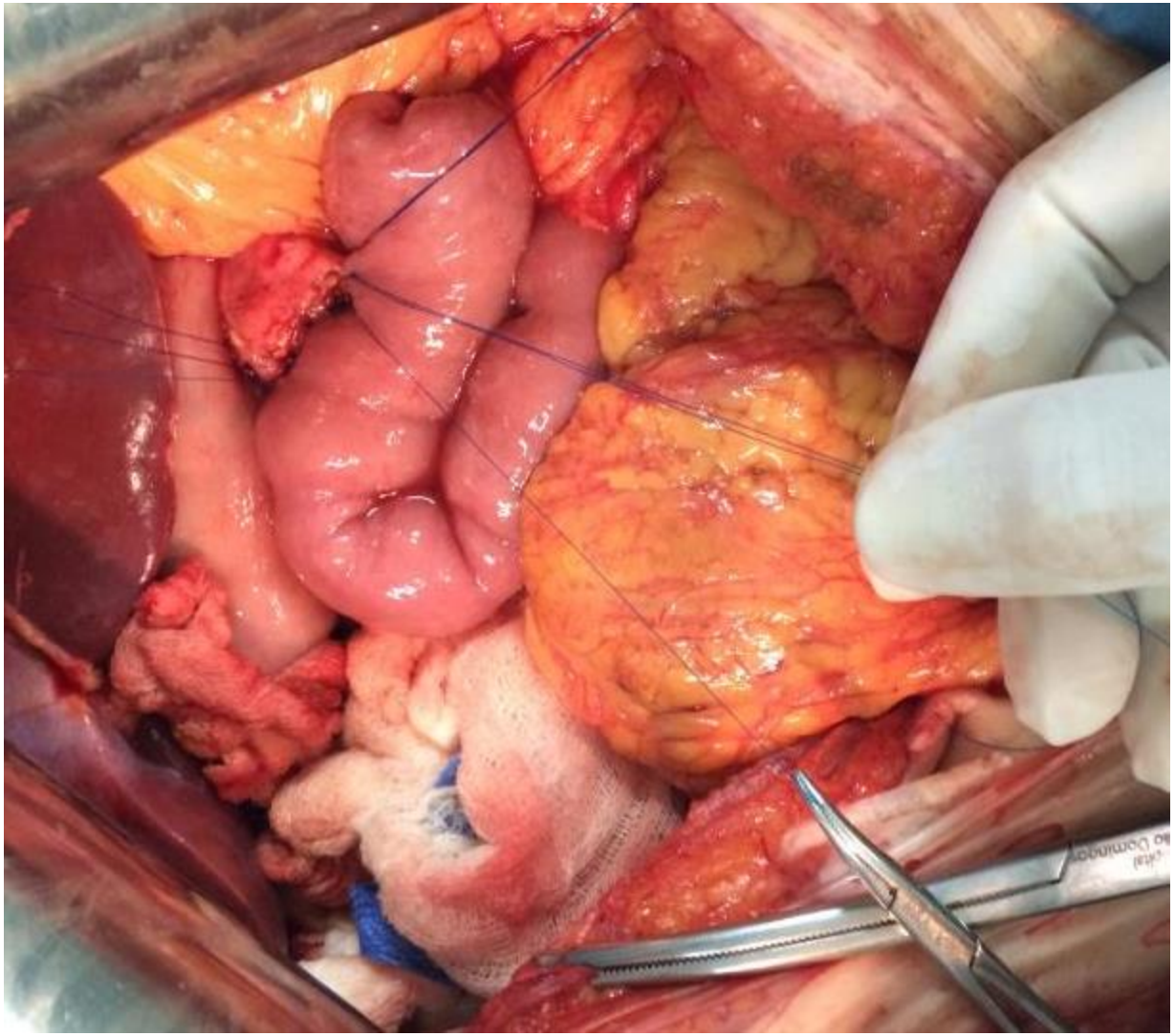
Ketwaroo GA, et al. Gastroenterol Clin N Am 2016;45:67-81

# Cistoadenoma seroso



Ketwaroo GA, et al. Gastroenterol Clin N Am 2016;45:67-81

# Cistoadenoma seroso



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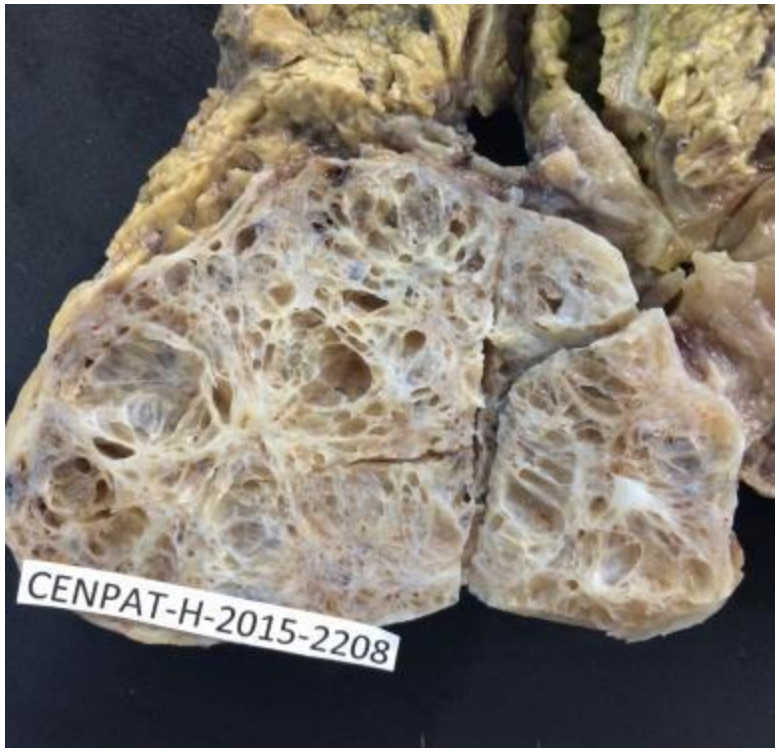
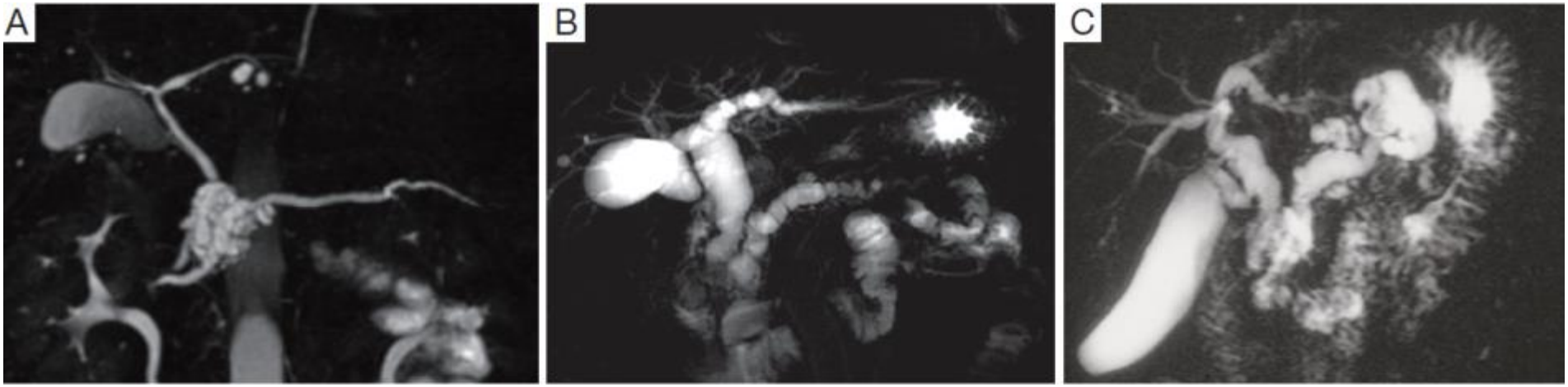



# Lesões pré-malignas

- Lesões císticas pré-malignas
  - IPMN (Neoplasia mucinosa papilar intraductal)
  - MCN (Neoplasia mucinosa cística)
- Neoplasia intra-epitelial pancreática (PanIN)

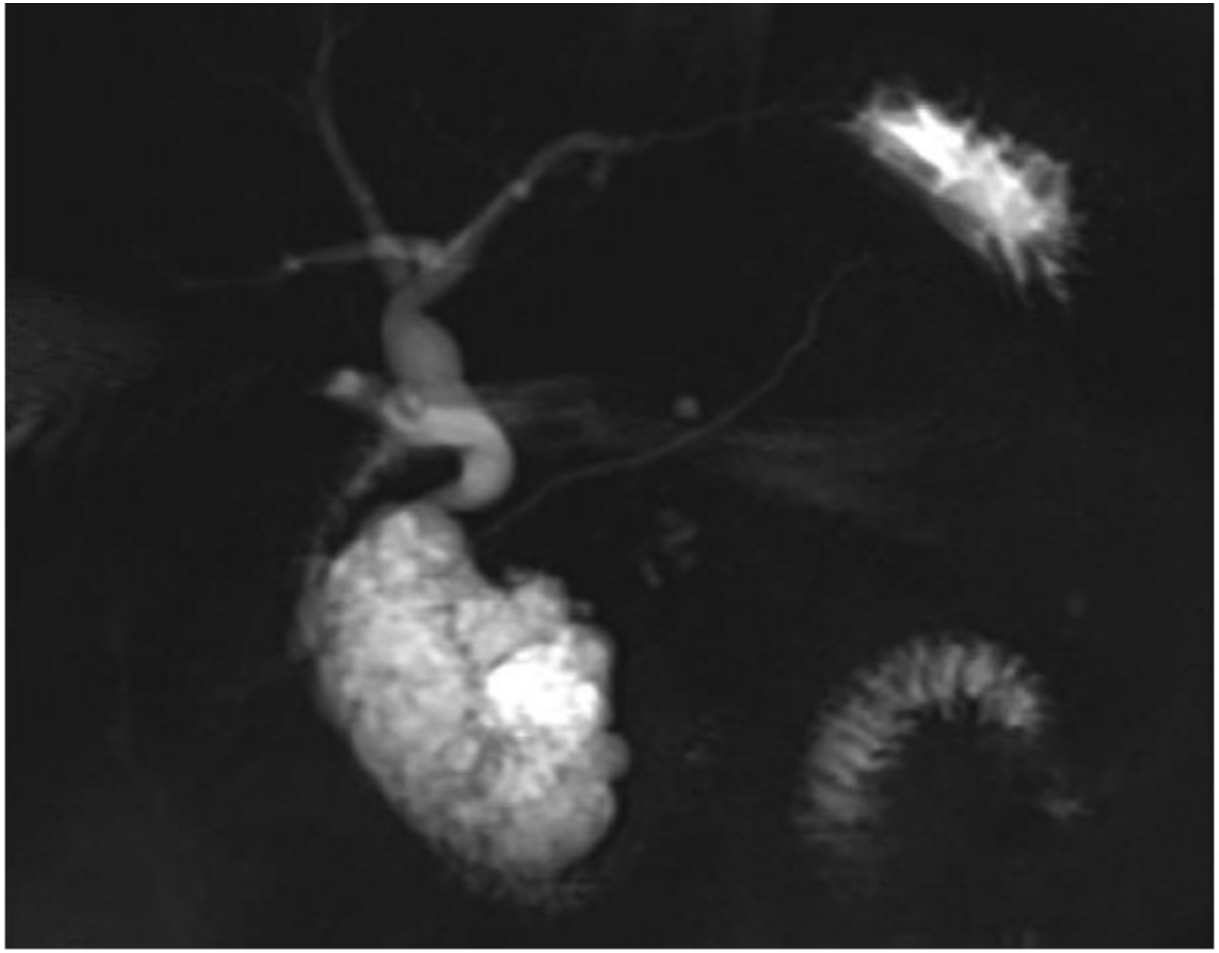
Eskander MF, et al. Curr Probl Surg 2016;53:107-54

# IPMN Neoplasia mucinosa papilar intraductal



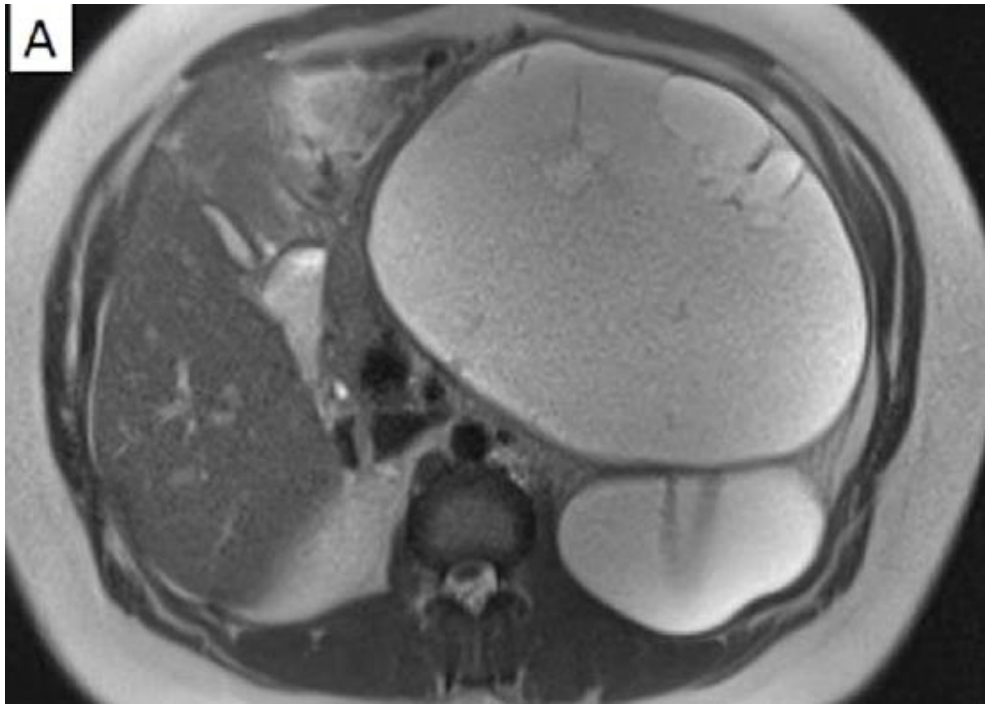

Beger HG, et al. The pancreas, 2° edition - 2008

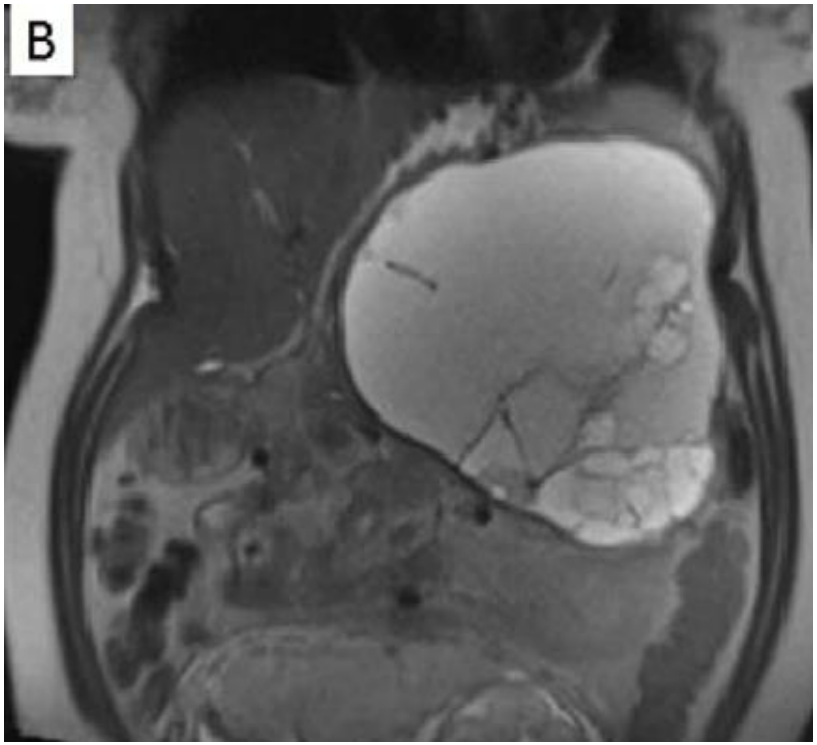
# IPMN Neoplasia mucinosa papilar intraductal



Ketwaroo GA, et al. Gastroenterol Clin N Am 2016;45:67-81

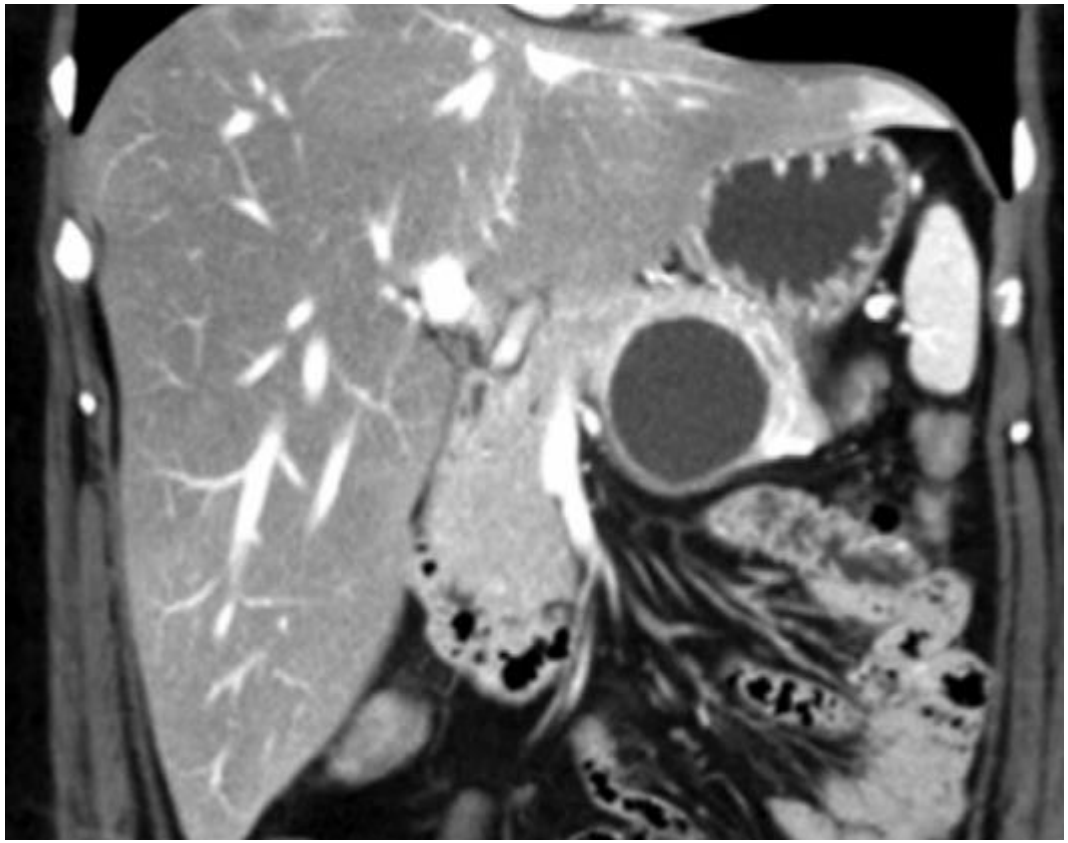
# Neoplasia mucinosa cística




Beger HG, et al. The pancreas, 2° edition - 2008

# Neoplasia mucinosa cística

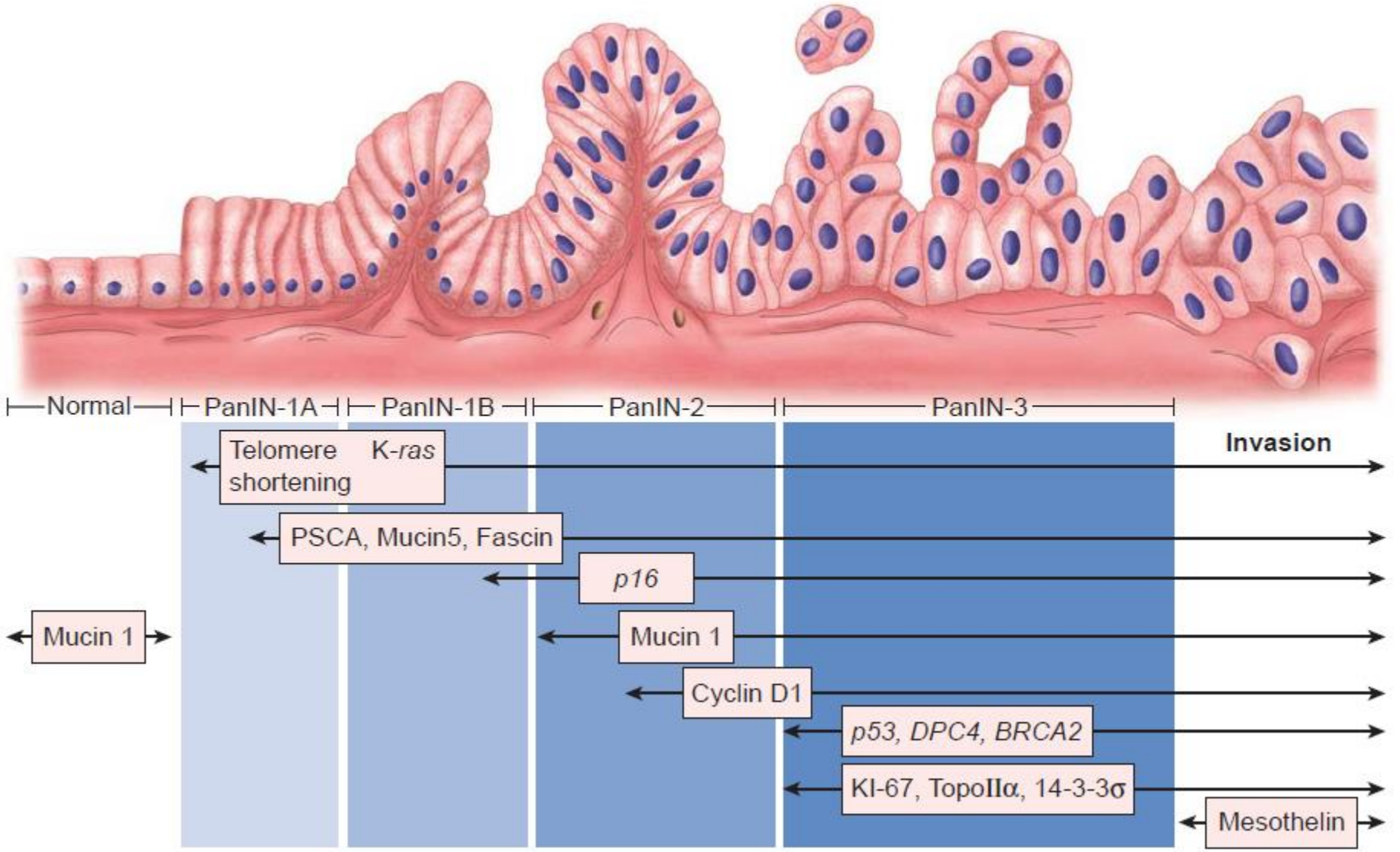


Ketwaroo GA, et al. Gastroenterol Clin N Am 2016;45:67-81

# Neoplasia mucinosa cística

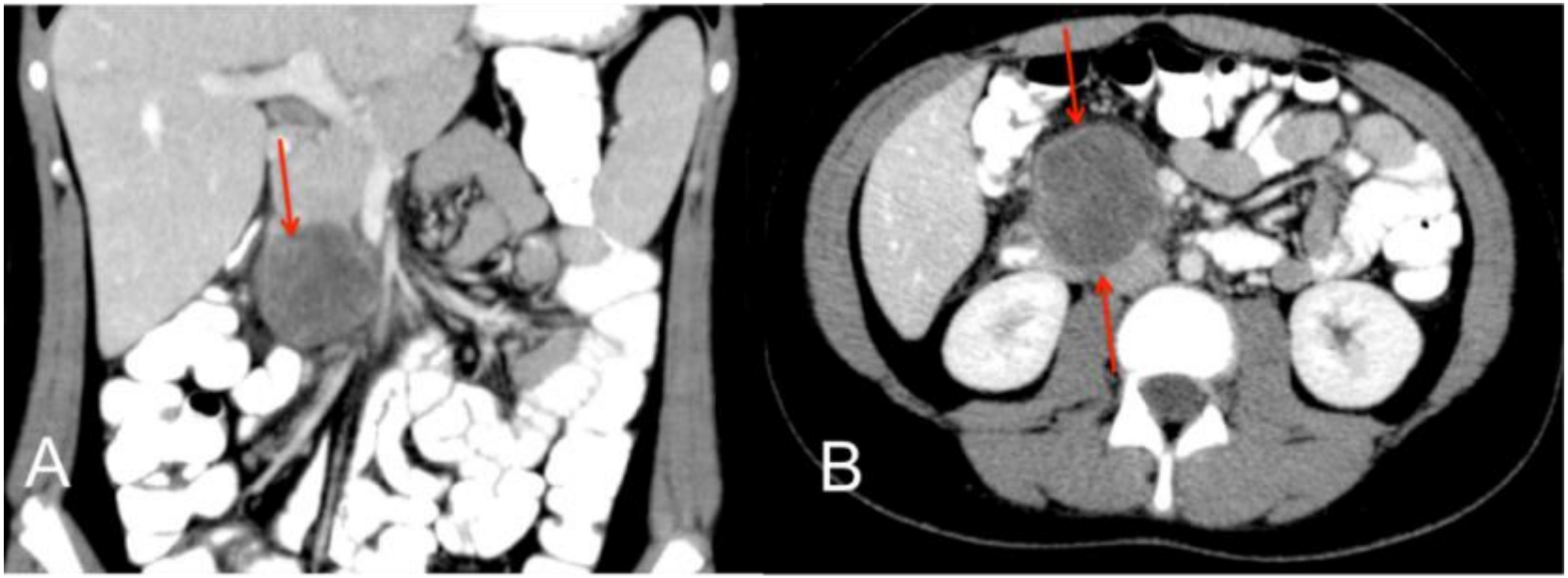
Ketwaroo GA, et al. Gastroenterol Clin N Am 2016;45:67-81

# Neoplasia intra-epitelial pancreática



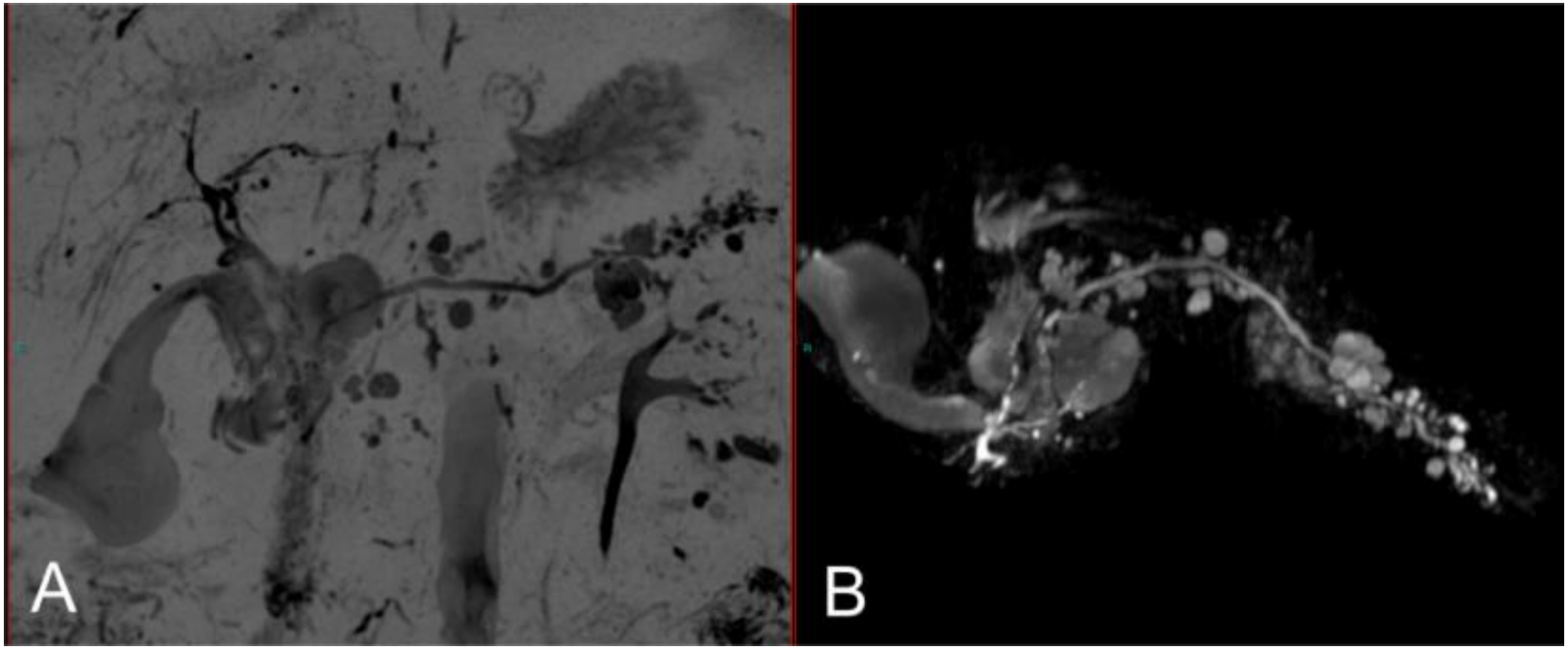

Fisher WE, et al 2014

# Neoplasia sólida pseudopapilar (Frantz)



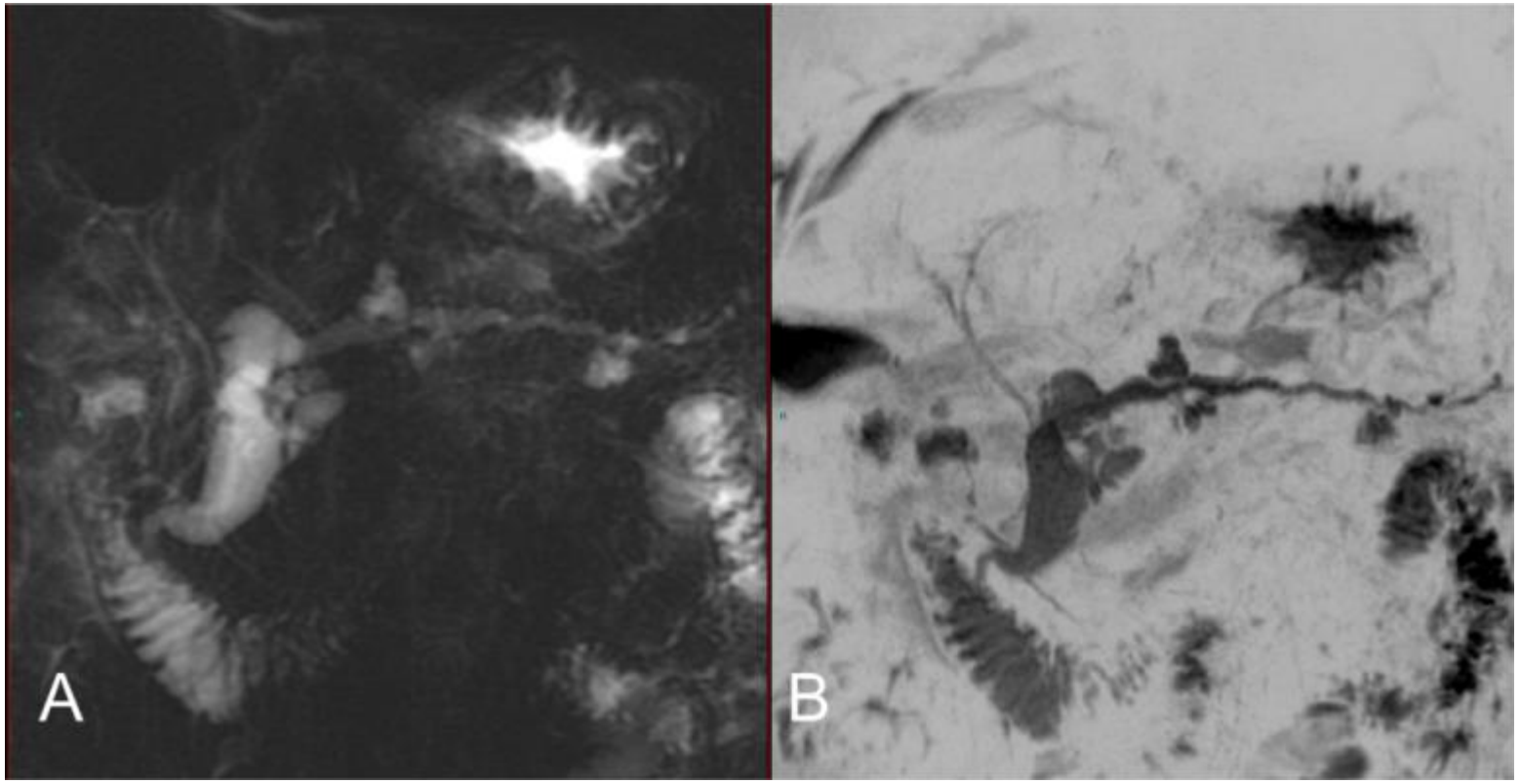

Sousa LS. Imagenologia do pâncreas . In Torres OJM, 2017

# Neoplasia mucinosa papilar intraductal (IPMN)




Sousa LS. Imagenologia do pâncreas . In Torres OJM, 2017

# Neoplasia mucinosa papilar intraductal (IPMN)




Sousa LS. Imagenologia do pâncreas . In Torres OJM, 2017

# Suspeita clínica

- ❑ Icterícia obstrutiva
- ❑ Perda de peso > 10% (sem explicação)
- ❑ Dor abdominal ou lombar (sem explicação)
- ❑ Dispepsia
- ❑ Diabetes mellitus (súbito) sem fatores predisponentes
- ❑ Pancreatite idiopática
- ❑ Esteatorréia (sem explicação)

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# Apresentação clínica

- **Depende da localização**
  - **Cabeça**
  - **Corpo**
  - **Cauda**

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# Estado atual

- **Pré-operatório**
  - Necessidade de biópsia
  - Quimioterapia neoadjuvante
- **Escolha da via de acesso**
  - Videolaparoscopia
- **Transoperatório**
  - Ressecção vascular
  - Preservação gástrica (SSPPD)
  - Linfadenectomia
  - Anastomose pancreática
  - Drenagem abdominal profilática
- **Pós-operatório**

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**Não é hepatite!**

# Achados clínicos

- ❑ Icterícia
- ❑ Hepatomegalia
- ❑ Vesícula palpável (Courvoisier)
- ❑ Caquexia
- ❑ Tromboflebite migratória
- ❑ Adenopatia
  - Supraclavicular (Virchow)
  - Periumbilical (Irmã Maria José)
  - Pelve (Prateleira de Blumer)

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# Marcador tumoral

## CA 19-9

- Detecta carga tumoral
- Nível associado com ressecabilidade

| | |
|---|---|
| < 100 U/mL | 60-80% |
| 100-400 U/mL | 20-30% |
| > 400 U/mL | irressecável |

- Associado com sobrevida

| | |
|---|---|
| < 37 U/mL | 20-40 meses |

- Queda no pós-operatório

| | |
|---|---|
| < 37 U/mL | prolongada |

- Elevação no pós-operatório

  Recorrência

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# Marcador tumoral

## CA 19-9

- Limitações
  - Apenas em pacientes com Lewis
  - Falso negativo 5-10%
- Falso positivo 10-60%
  - Colangite
  - Hepatite
  - Pancreatite
  - Icterícia obstrutiva
- Outras neoplasias
  - Esôfago
  - Estômago
  - Colo-retal

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**Table 67.2** Sensitivity and specificity of serum CA19-9 assay in diagnosing pancreatic cancer with different cutoff levels. (From ref. 22 with permission.)

| CA19-9 (U/mL) | Sensitivity (%) | Specificity (%) |
|---|---|---|
| 15 | 92 | 60 |
| 37 | 85 | 81 |
| 75 | 80 | 90 |
| 250 | 70 | 95 |
| 500 | 60 | 98 |
| 1000 | 40 | 99 |

Beger HG, et al. The pancreas, 2° edition - 2008

# Exames de imagem

- ❑ Ultrassonografia
- ❑ Tomografia com contraste
- ❑ Ressonância Nuclear Magnética
- ❑ CPRE (Colangiopancreatografia retrógrada endoscópica)
- ❑ Ecoendoscopia

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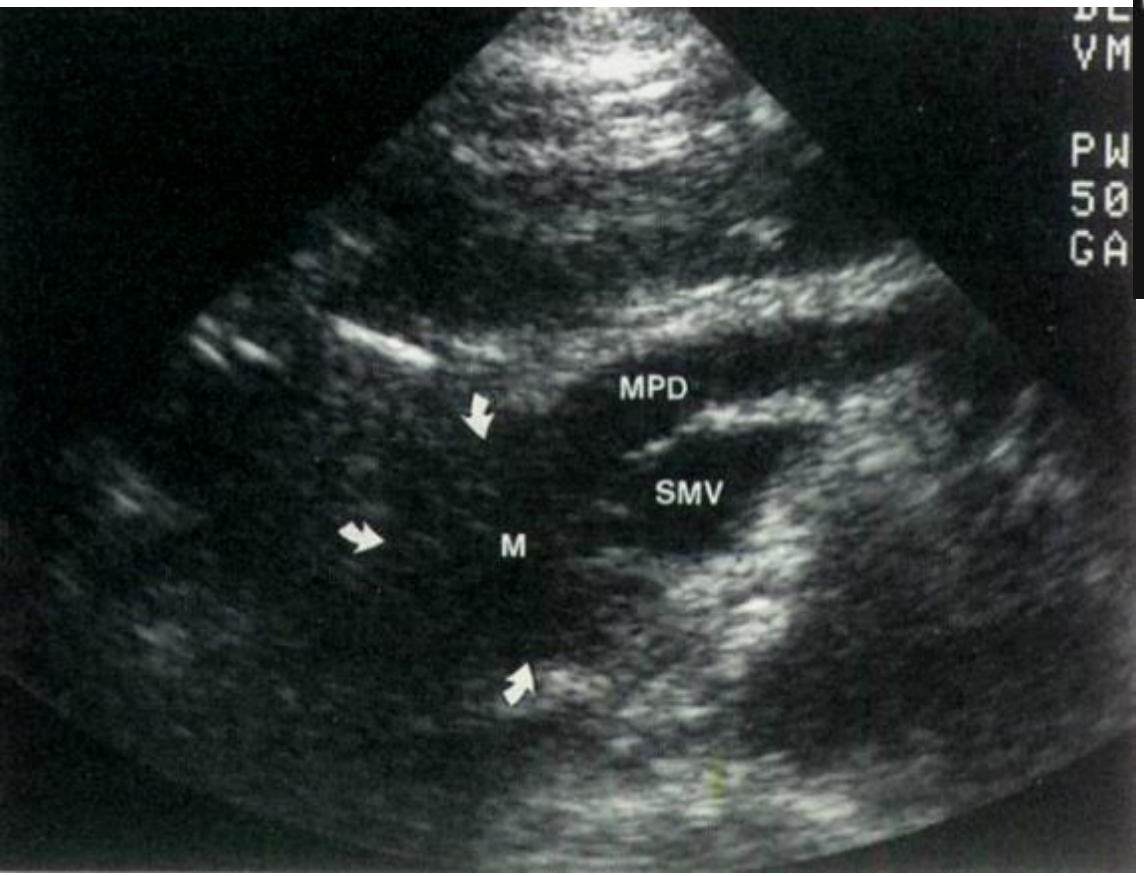
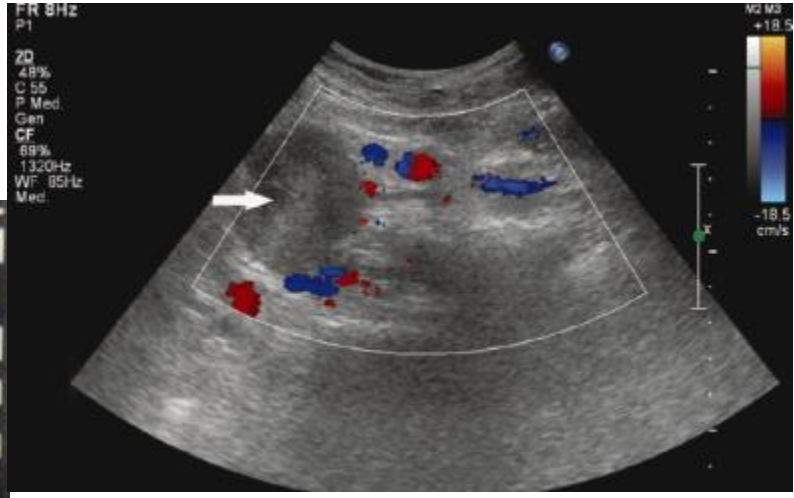
# ❑ Ultrassonografia

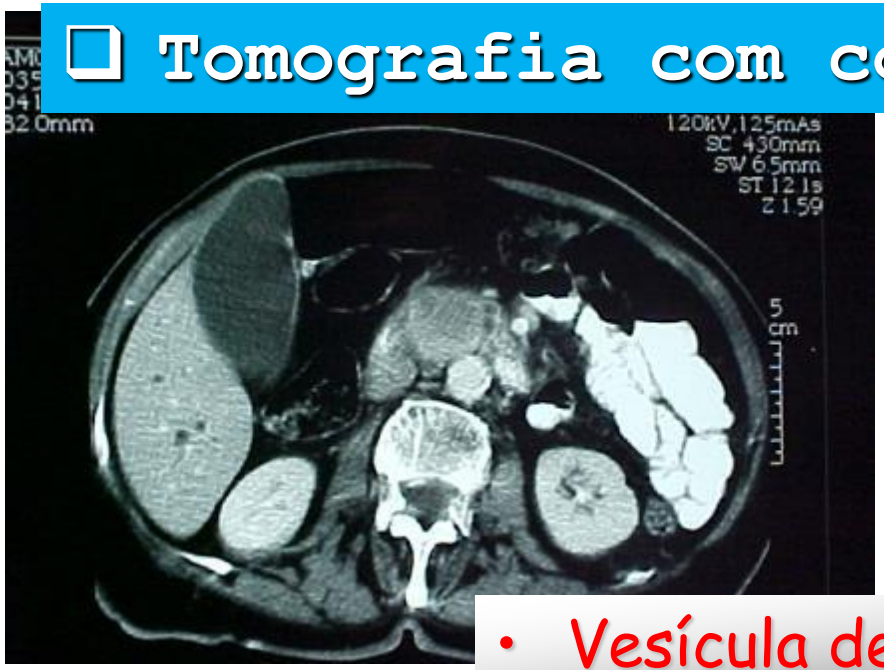


- Lesão focal na cabeça do pâncreas

Eskander MF, et al. Curr Probl Surg 2016;53:107-54

# ❑ Tomografia com contraste

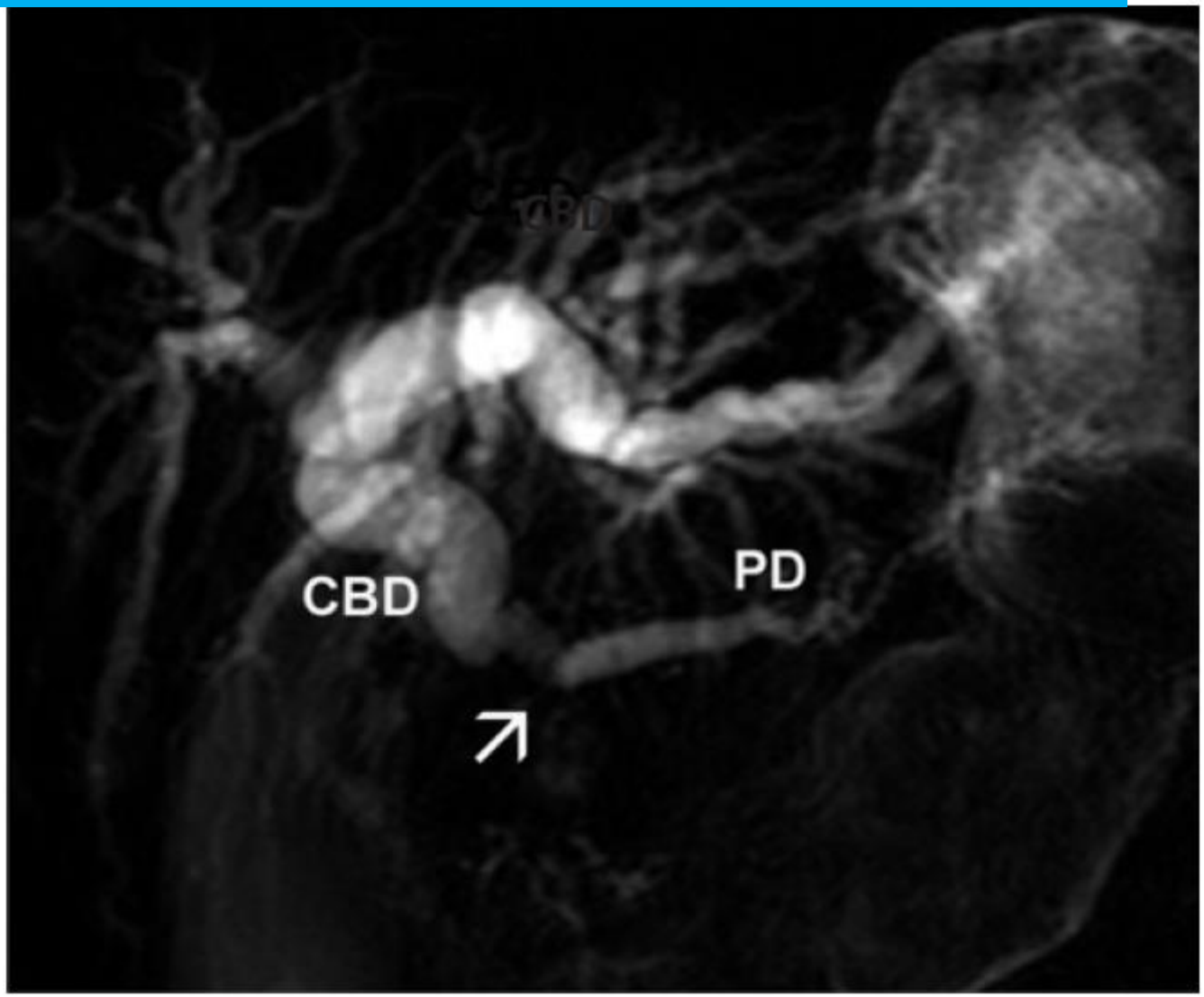




- Vesícula de Courvoisier

- Dilatação da VB intra-hepática

# ❑ Ressonância nuclear magnética

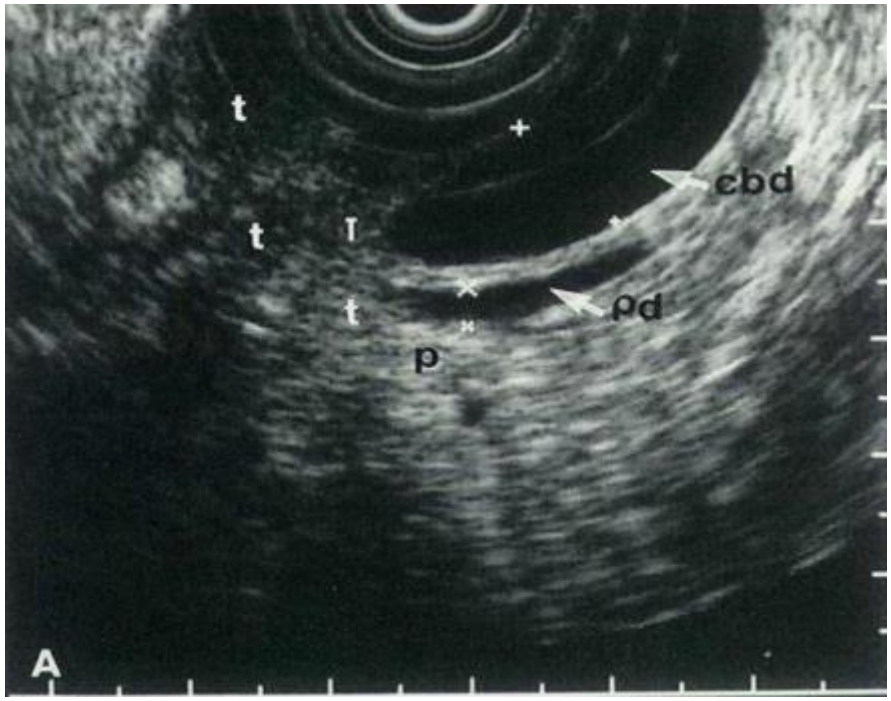


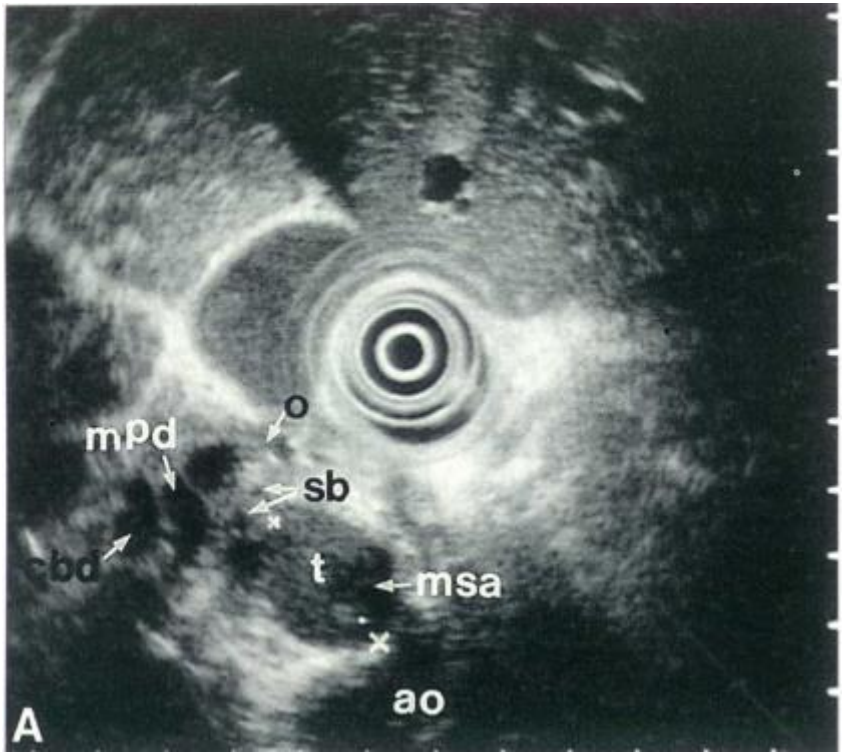

Beger HG, et al. The pancreas, 2° edition - 2008

# ❑ Ressonância nuclear magnética

Beger HG, et al. The pancreas, 2° edition - 2008

# ❑ Ecoendoscopia

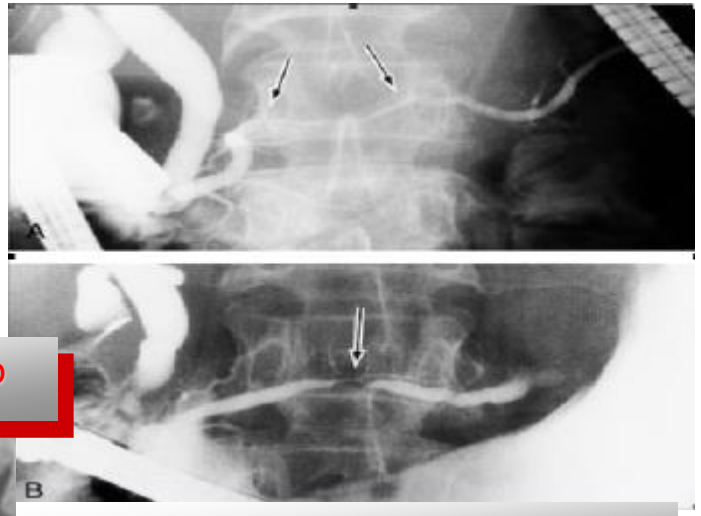



- Extensão da lesão
- Invasão vascular

# ❑CPRE


Tipo I - Obstrução do DPP

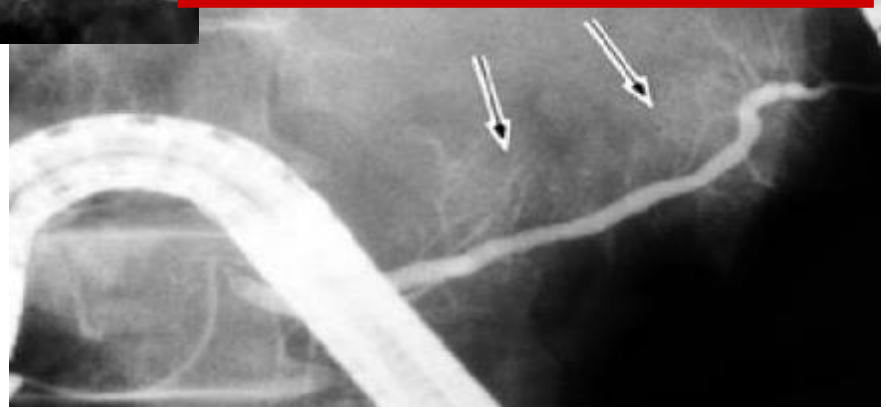



Tipo II Estenose segmentar do DPP

Tipo V Sinal do Ducto duplo

Tipo III - Estreitamento difuso

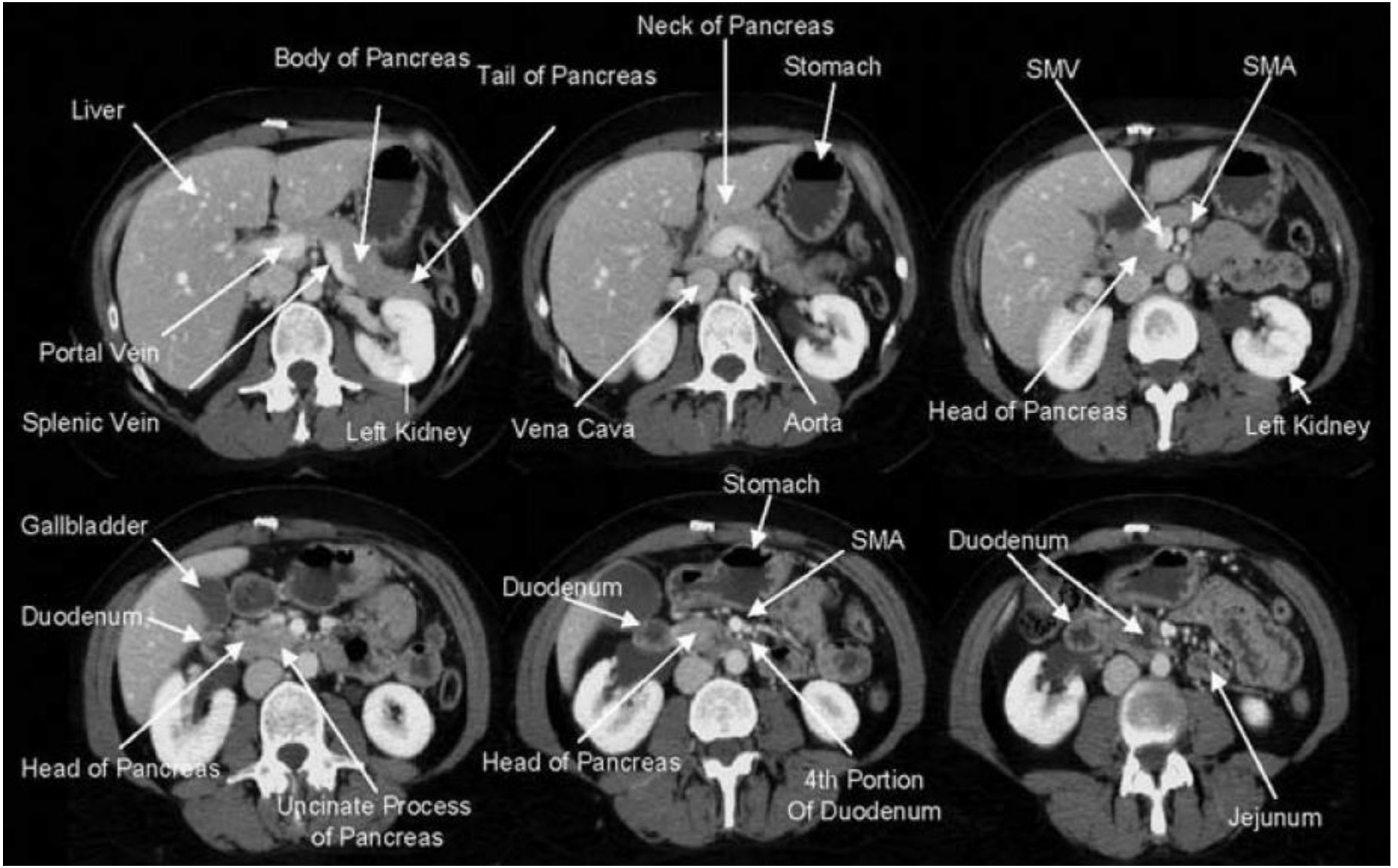
Tipo IV - Ramificações laterais

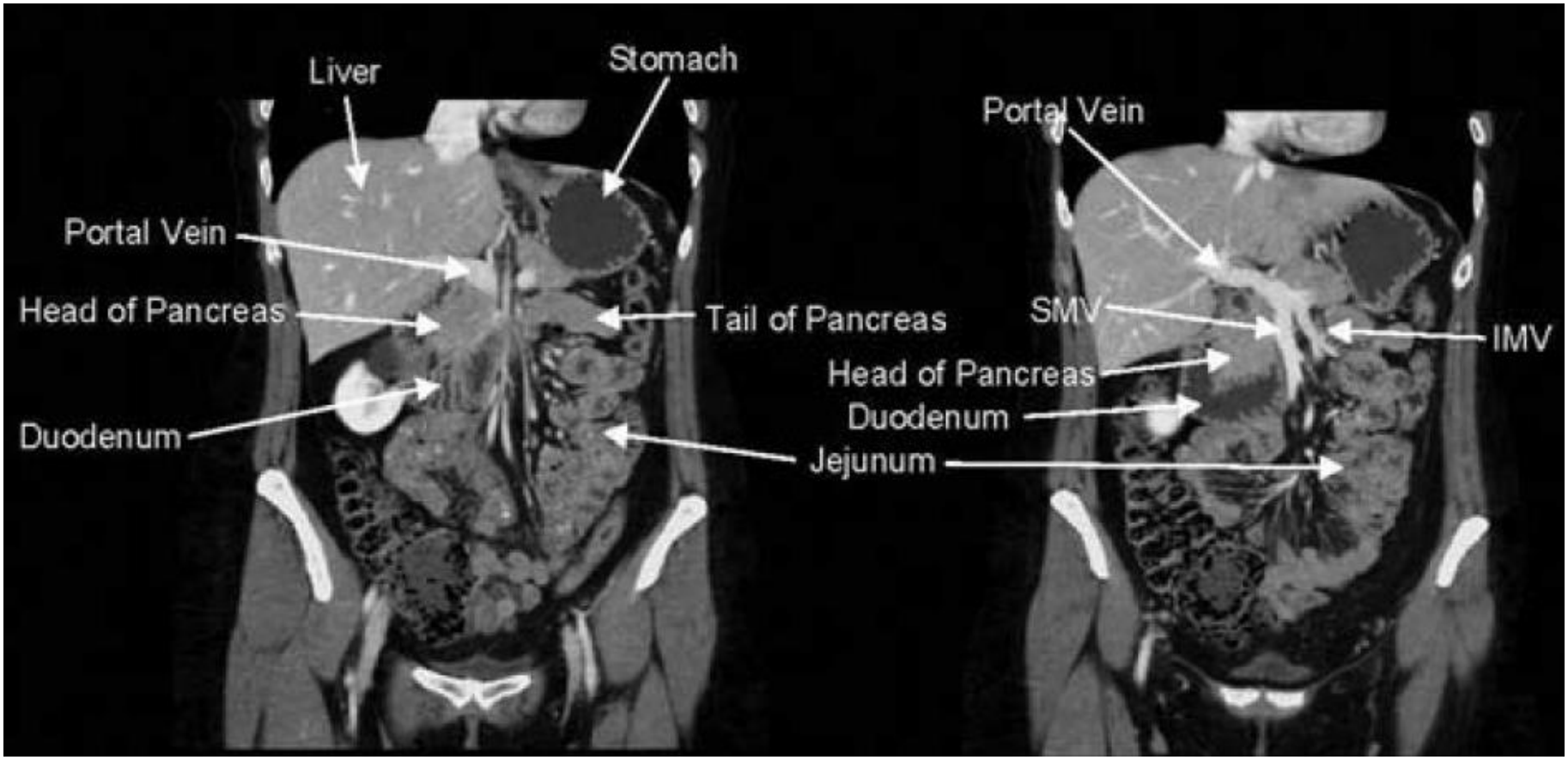


# Estadiamento

- ❑ Ultrassonografia
- ❑ Tomografia com contraste
- ❑ Ressonância Nuclear Magnética
- ❑ Ecoendoscopia
- ❑ PET CT
- ❑ Laparoscopia
- ❑ Exploração

Beger HG, Matsuno S, Cameron JL, 2010


Liver
Body of Pancreas
Tail of Pancreas
Neck of Pancreas
Stomach
SMV
SMA
Portal Vein
Splenic Vein
Left Kidney
Vena Cava
Aorta
Head of Pancreas
Left Kidney
Gallbladder
Duodenum
Head of Pancreas
Uncinate Process
of Pancreas
Stomach
SMA
Duodenum
Head of Pancreas
4th Portion
Of Duodenum
Duodenum
Jejunum


Liver
Stomach
Portal Vein
Head of Pancreas
Tail of Pancreas
Duodenum
Jejunum
Portal Vein
SMV
IMV
Head of Pancreas
Duodenum

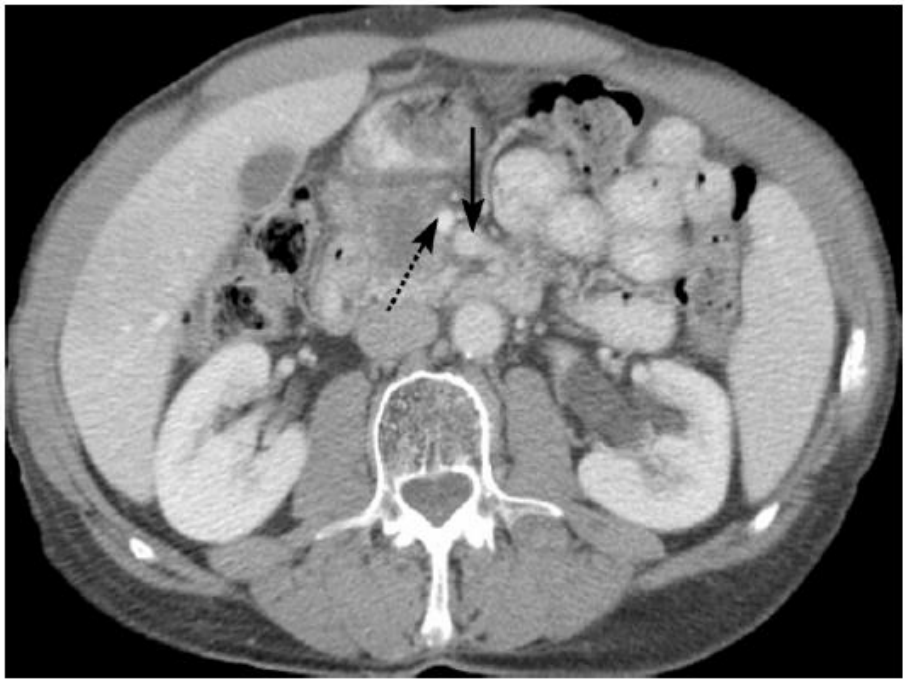


**Figure 48.1**

Borderline resectable low-attenuation mass in the head of the pancreas that extends along the anterior margin of the superior mesenteric vein (SMV; *dashed arrow*), with an intact fat plane between the SMV and superior mesenteric artery

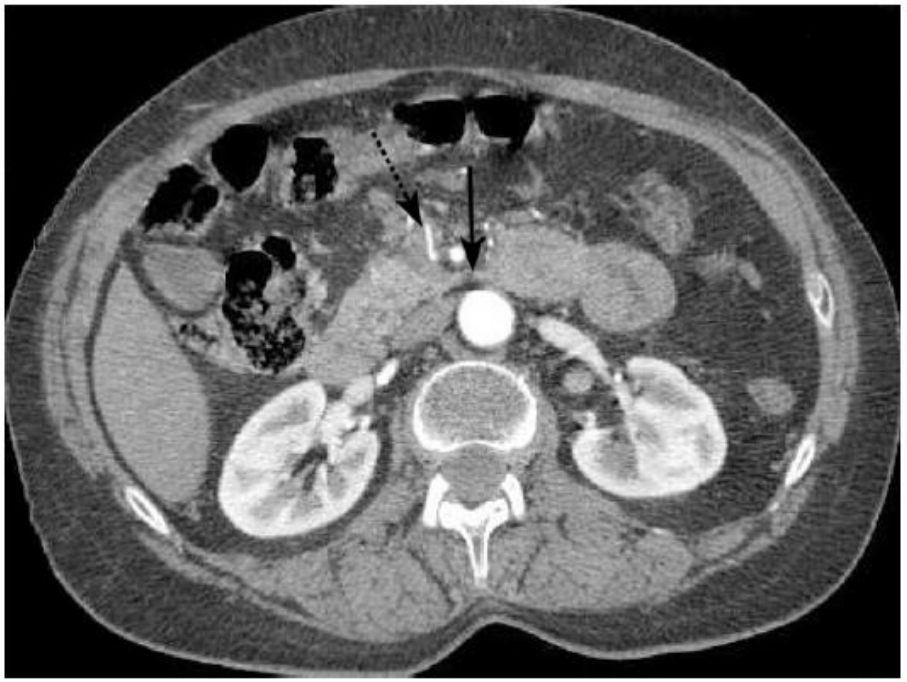


**Figure 48.2**

Dual-phase multidetector computed tomography (MDCT) image of a locally advanced, unresectable pancreatic cancer involving the SMA (*solid arrow*) and its branches (*dashed arrow*)

Beger HG, Matsuno S, Cameron JL, 2010

# Laparoscopia

## TABLE 33-19 Findings at exploration

Findings contraindicating resection

- Liver metastases (any size)
- Celiac lymph node involvement
- Peritoneal implants
- Hepatic hilar lymph node involvement

Findings not contraindicating resection

- Invasion at duodenum or distal stomach
- Involved peripancreatic lymph nodes
- Involved lymph nodes along the porta hepatis that can be swept down with the specimen

Fisher WE, et al 2014

**Table 2**
**Definitions of borderline resectable pancreatic cancer**

| Vessel Involved | MDACC | AHPBA/SSO/ SSAT | NCCN/ISGPS | Moffitt |
|---|---|---|---|---|
| SMA | Abutment | Abutment | Abutment | Abutment |
| CHA | Abutment or short segment encasement | Abutment or short segment encasement | Abutment without extension to celiac or HA bifurcation | Abutment or short segment encasement |
| Celiac axis | Abutment | No abutment or encasement | No contact | Not specified |
| SMV-PV confluence | Short-segment occlusion amenable to reconstruction | Abutment, encasement, or occlusion amenable to reconstruction | Abutment or encasement amenable to reconstruction | Abutment or encasement amenable to resection |

Helmink BA, et al Surg Oncol Clin N Am 2016;25:287–310

# Tratamento

- Duodenopancreatectomia
  - Apenas 20% são ressecáveis
- Quimioterapia
  - Neoadjuvante
  - Adjuvante
- Quimio-radioterapia
- Paliação
  - 80% dos pacientes
    - Doença localmente avançada
    - Doença metastática

Helmink BA, et al Surg Oncol Clin N Am 2016;25:287-310

# Critérios de ressecabilidade

*Resectable*
No distant metastases (liver, peritoneal, etc.)
No superior mesenteric, celiac, or hepatic artery encasement
Normal portography

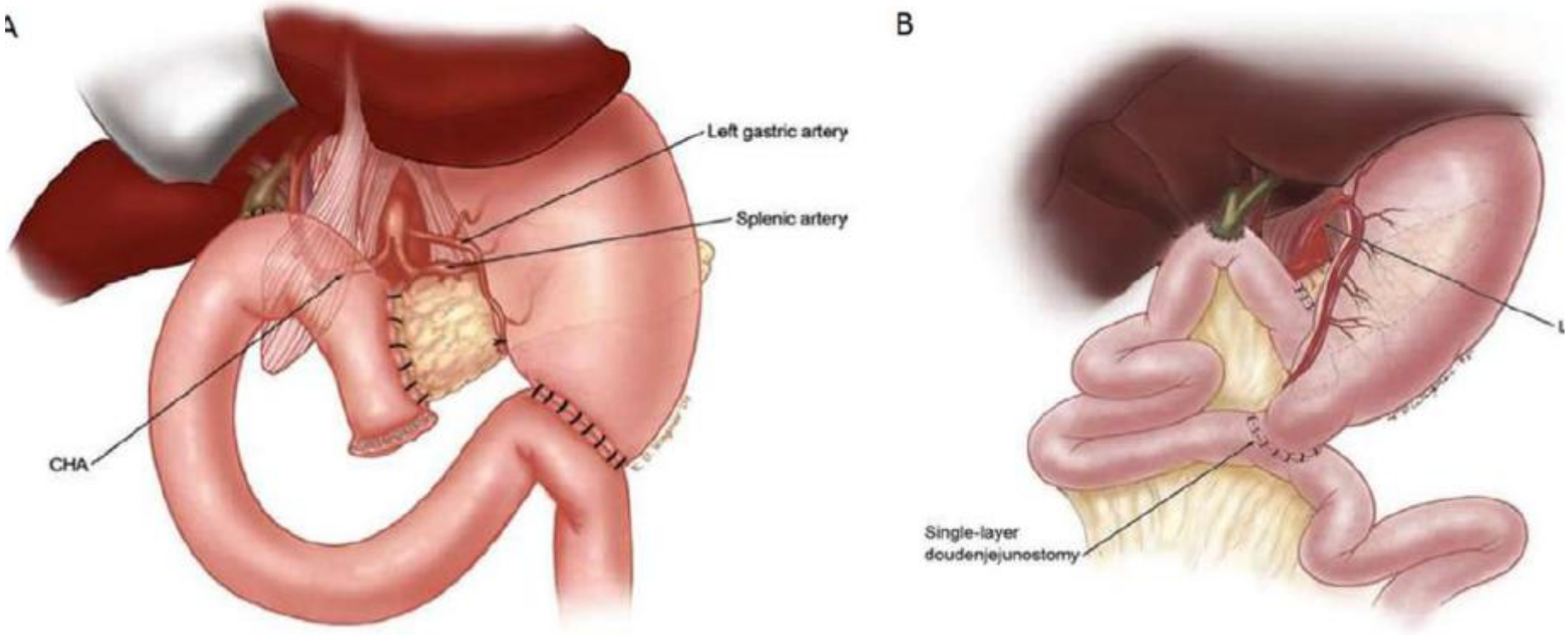
*Locally advanced resectable (borderline resectable)*
Abnormal portography but possibility of reconstruction
Tumor abutment on celiac or superior mesenteric artery
Invasion of stomach, colon, or mesocolon

*Unresectable*
Distant metastases (liver, peritoneal, etc.)
Superior mesenteric, celiac, or hepatic artery encasement
Lymph node metastases outside the dissection field
Portal or superior mesenteric venous invasion with obstruction indicating impossibility of reconstruction
Severe concomitant disease

Beger HG, et al. The pancreas, 2° edition - 2008

# Cirurgia

- Duodenopancreatectomia
  - Whipple clássica
  - Preservação pilórica
  - Preservação gástrica
- Via de acesso
  - Aberta
  - Laparoscópica
- Dois tempos distintos
  - Ressecção
  - Reconstrução




Beger HG, Matsuno S, Cameron JL, 2010

ABCDDV/1175

ABCD Arq Bras Cir Dig
2016;29(2):71-72
DOI: /10.1590/0102-6720201600020001

Editorial

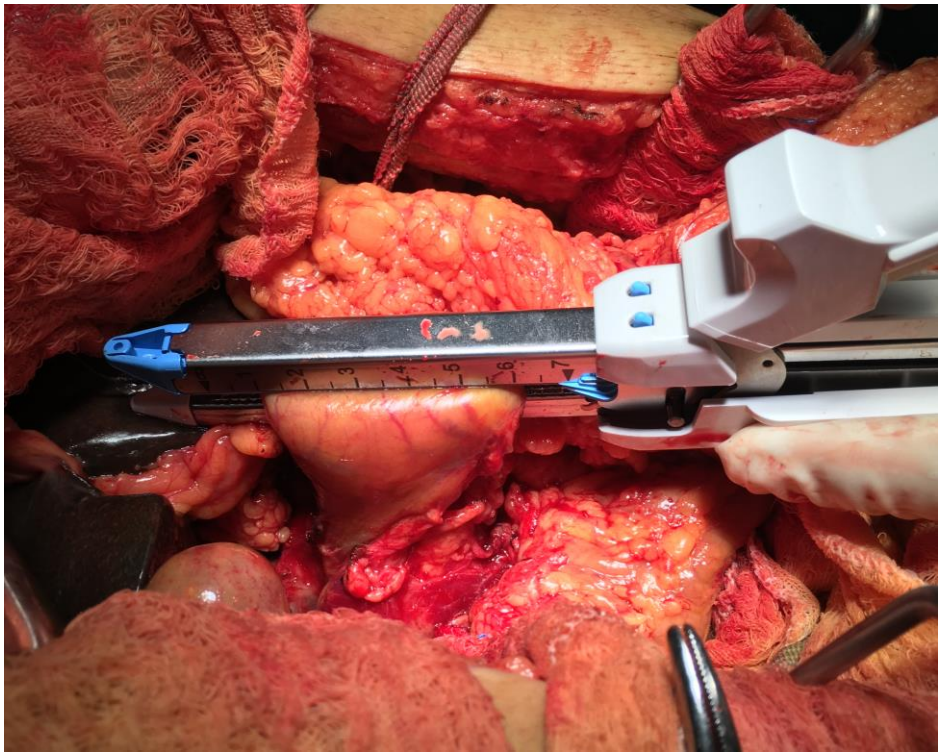
# THE OBITUARY OF THE PYLORUS-PRESERVING PANCREATODUODENECTOMY

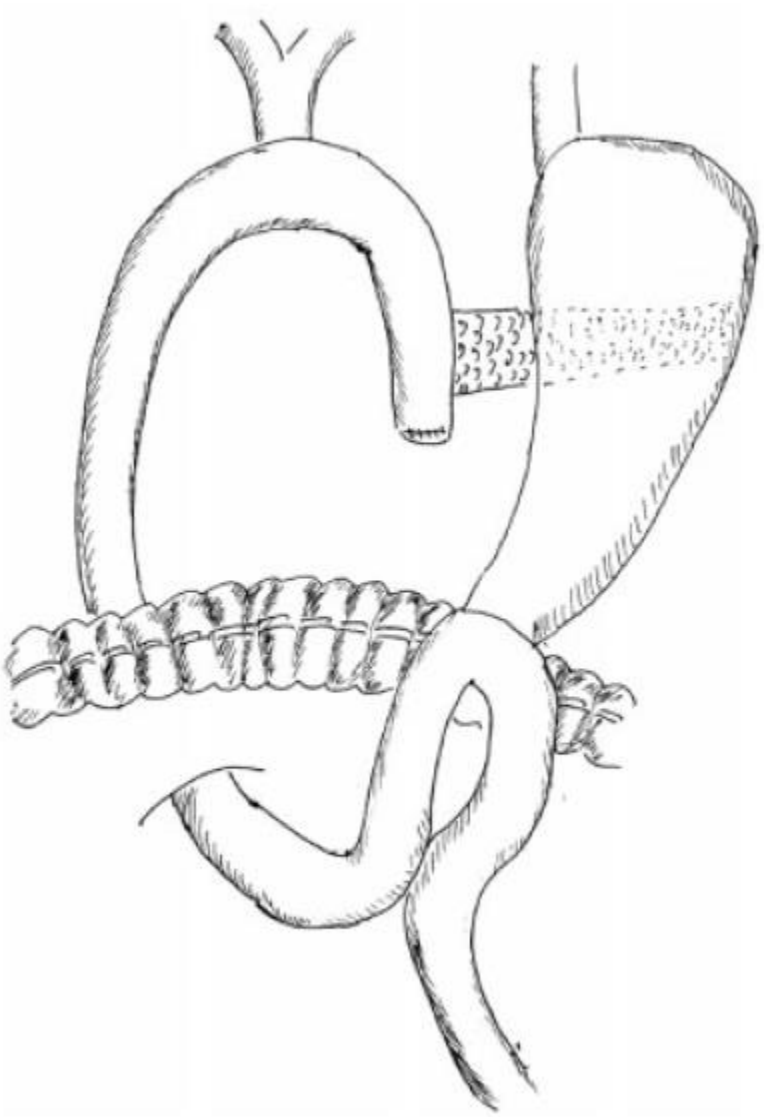
*O obituário da duodenopancreatectomia com preservação pilórica*

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-preserving) in which the pyloric ring and 2 cm of the distal stomach only is removed with preservation of about 90% of the





Hayashibe A, et al. J Surg Oncol 2007;95:106-9.

ISSN 0100-6991

# DUODENOPANCREATECTOMIAS: ANÁLISE DE 39 PACIENTES

## PANCREATICODUODENECTOMIES: ANALYSIS OF 39 PATIENTS

**Orlando Jorge Martins Torres, TCBC-MA[1]; Érica Sampaio Barbosa[2]; Noelia Dias Carneiro Barros[2]; Cristiany de Almeida Barros[2]; Edson Dener Zandonadi Ferreira[2]; Herquimas Costa Pereira, ACBC-MA[3]**

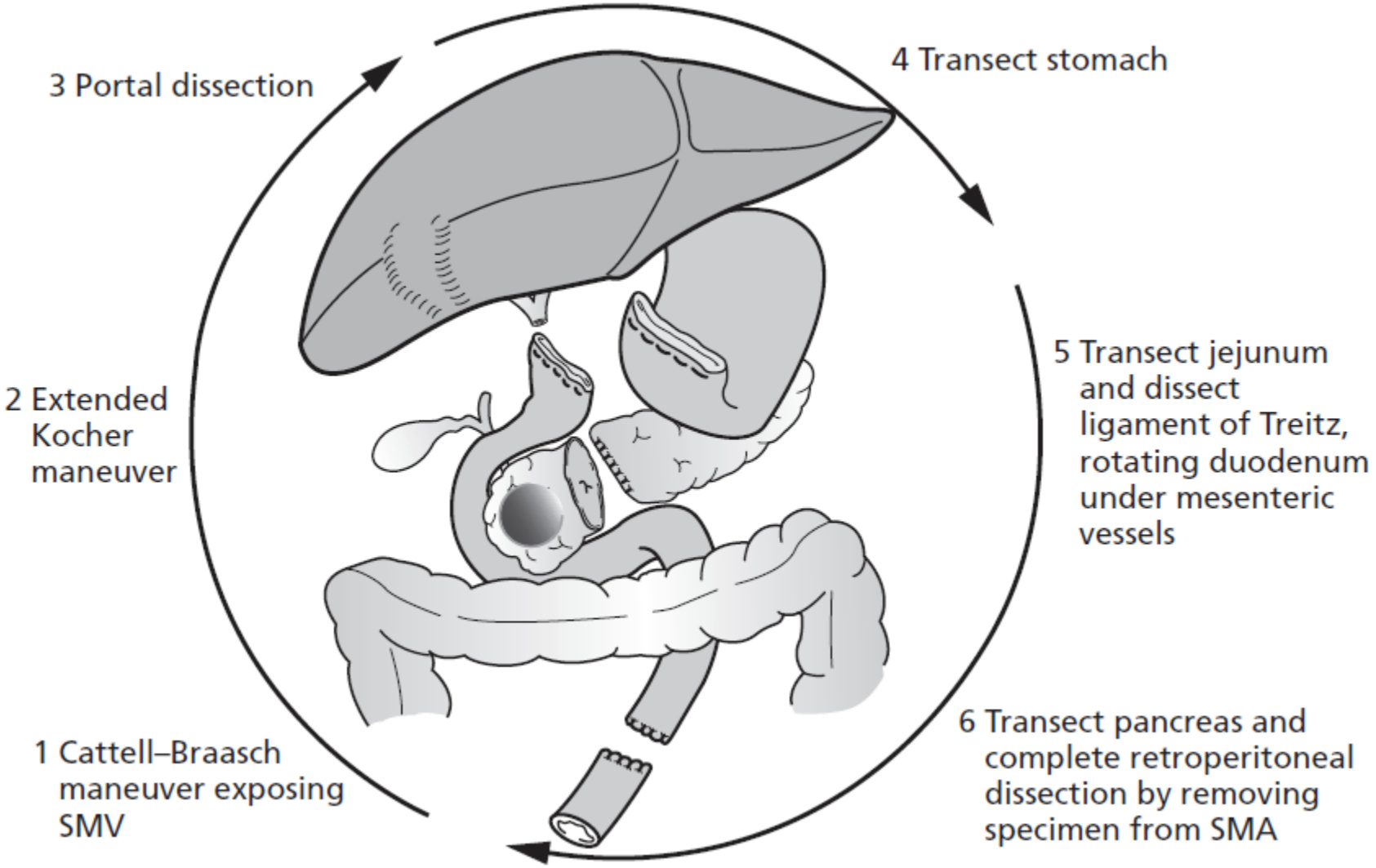
**RESUMO: Objetivo**: Pretendemos neste estudo analisar 39 pacientes submetidos à duodenopancreatectomia. **Método**: No período de julho de 1998 a março de 2004, trinta e nove pacientes foram submetidos a duodenopancreatectomia no Hospital Universitário da Universidade Federal do Maranhão. Foram analisados 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

**Table 2.** Indications

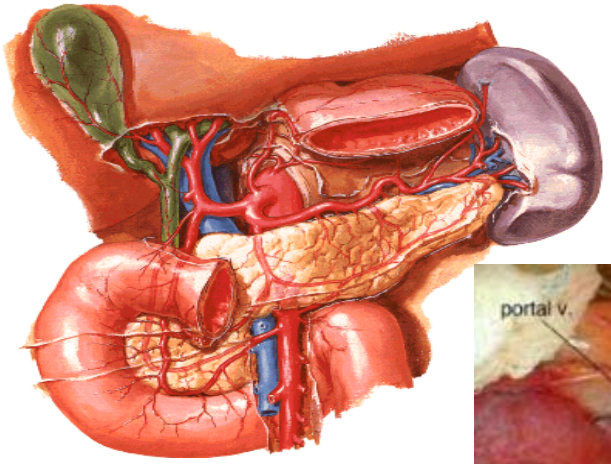
| Indication | First 1,000 Whipples | | Second 1,000 Whipples | |
|---|---|---|---|---|
| | n | % | n | % |
| Periampullary | 676 | 68 | 667 | 67 |
| Pancreas | 428 | 43 | 473 | 47 |
| Ampulla | 112 | 11 | 81 | 8 |
| Bile duct | 98 | 10 | 76 | 8 |
| Duodenum | 38 | 4 | 37 | 4 |
| Pancreatitis | 86 | 9 | 44 | 4 |
| IPMN* | 33 | 3 | 80 | 8 |
| Neuroendocrine | 49 | 5 | 55 | 6 |
| Ampullary/duodenal adenoma | 48 | 5 | 51 | 5 |
| Cystadenoma | 35 | 4 | 33 | 3 |
| Metastasis to pancreas | 7 | 1 | 7 | 1 |
| GIST | 4 | 0 | 5 | 1 |
| Miscellaneous | 62 | 6 | 58 | 6 |

Cameron JL et al. J Am Coll Surg 2015;220:530-6

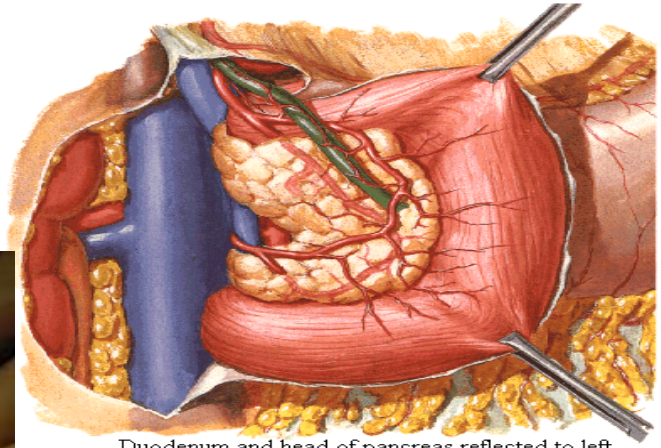
# Ressecção


3 Portal dissection
4 Transect stomach
2 Extended Kocher maneuver
5 Transect jejunum and dissect ligament of Treitz, rotating duodenum under mesenteric vessels
1 Cattell–Braasch maneuver exposing SMV
6 Transect pancreas and complete retroperitoneal dissection by removing specimen from SMA

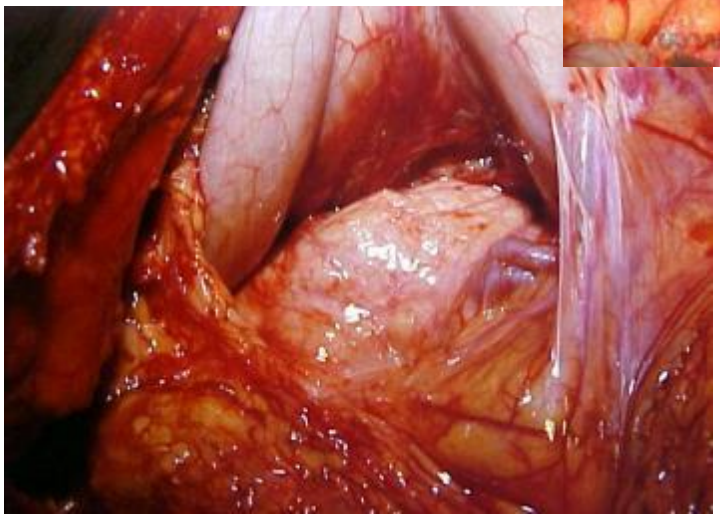
Arteries of Liver, Pancreas, Duodenum and Spleen

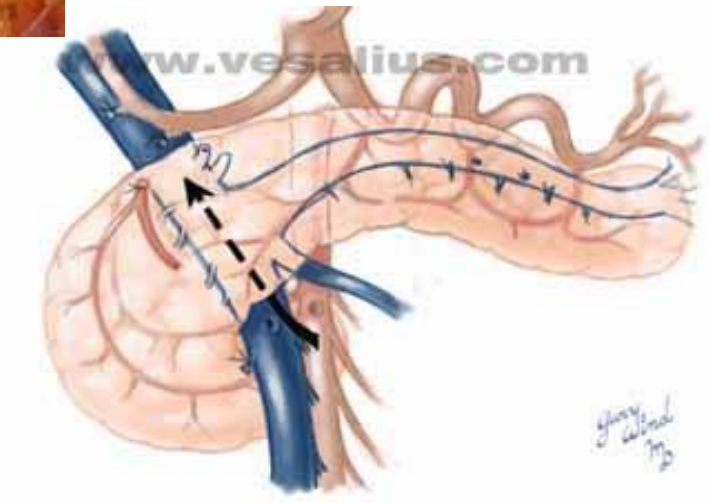



Arteries of Duodenum and Head of Pancreas
Reflected to Left

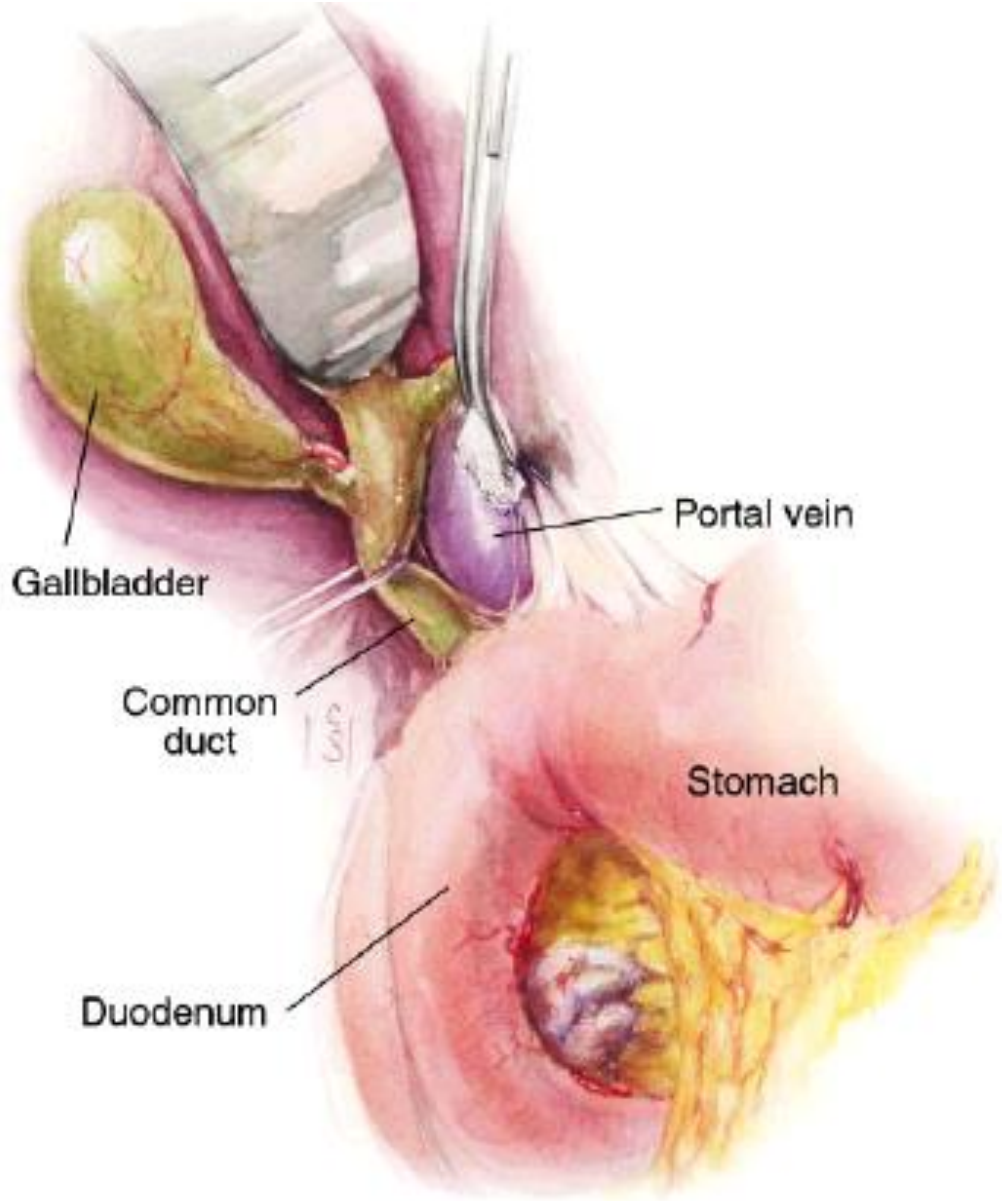


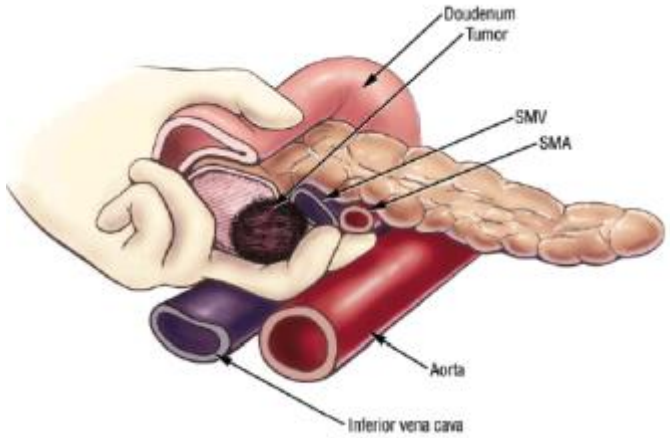
Duodenum and head of pancreas reflected to left

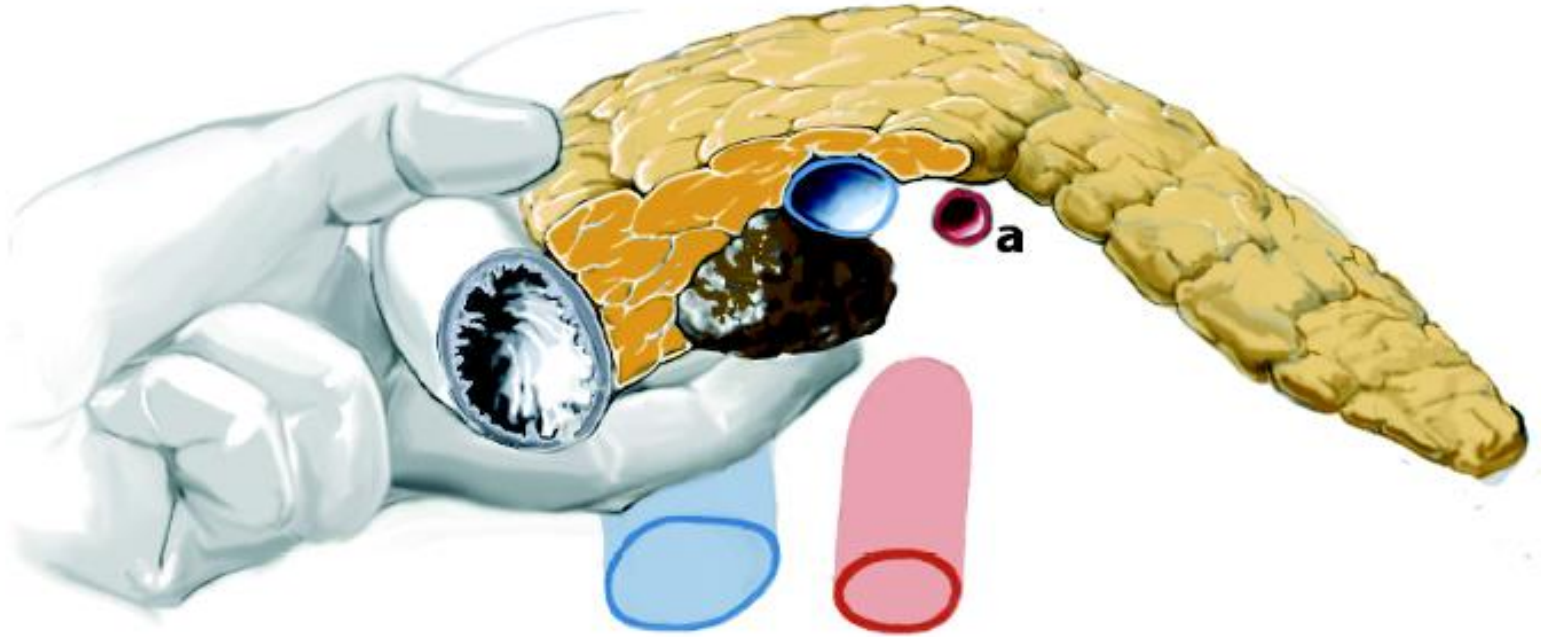




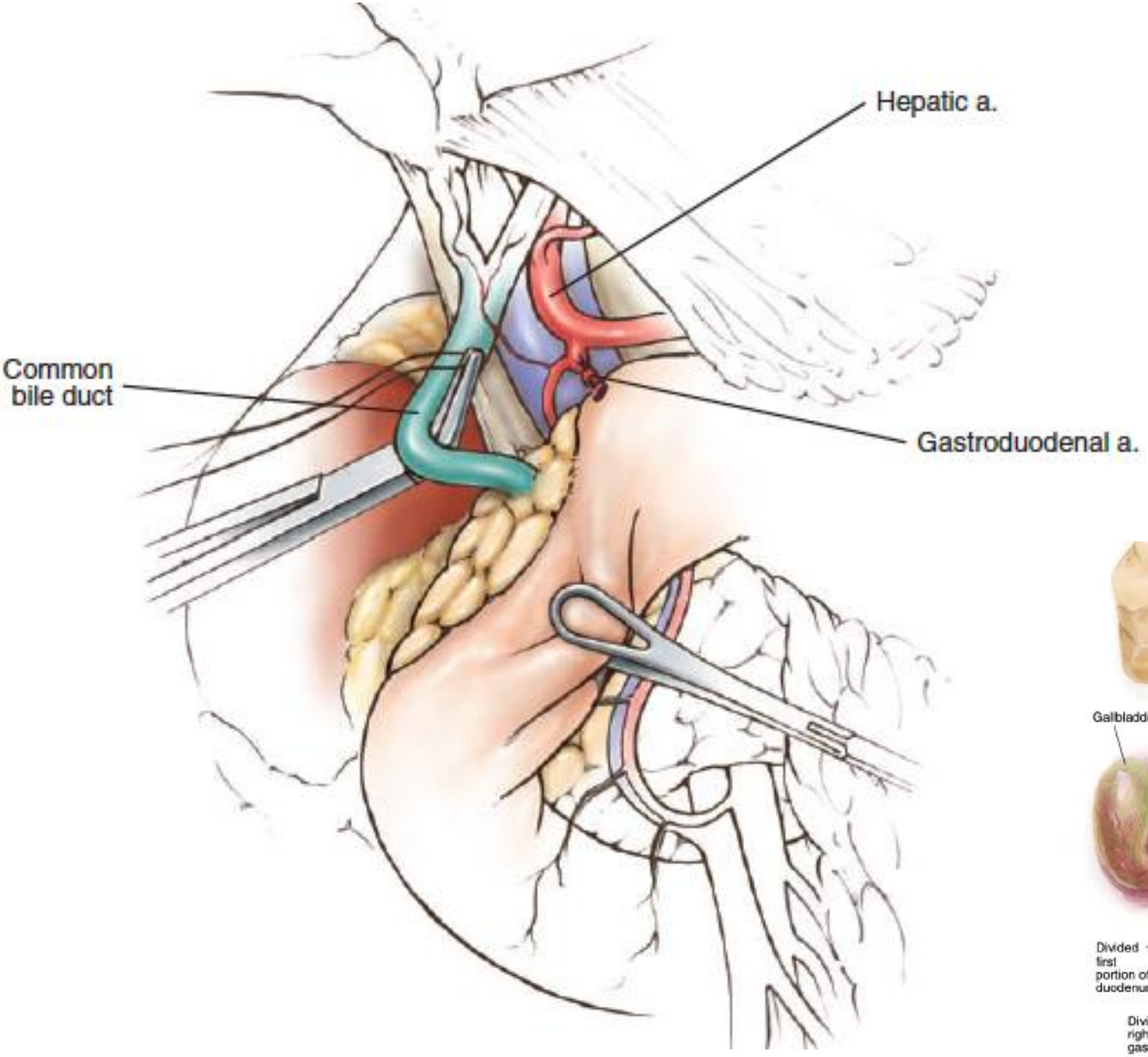

- Etapas do procedimento

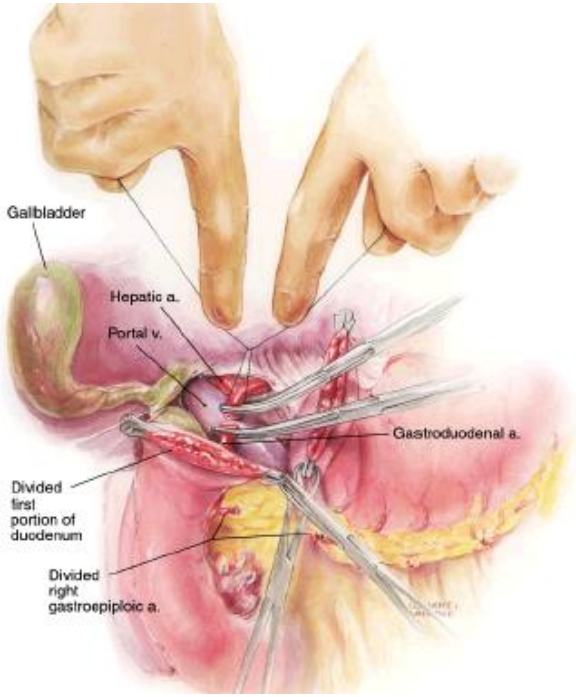

Portal vein
Gallbladder
Common duct
Stomach
Duodenum

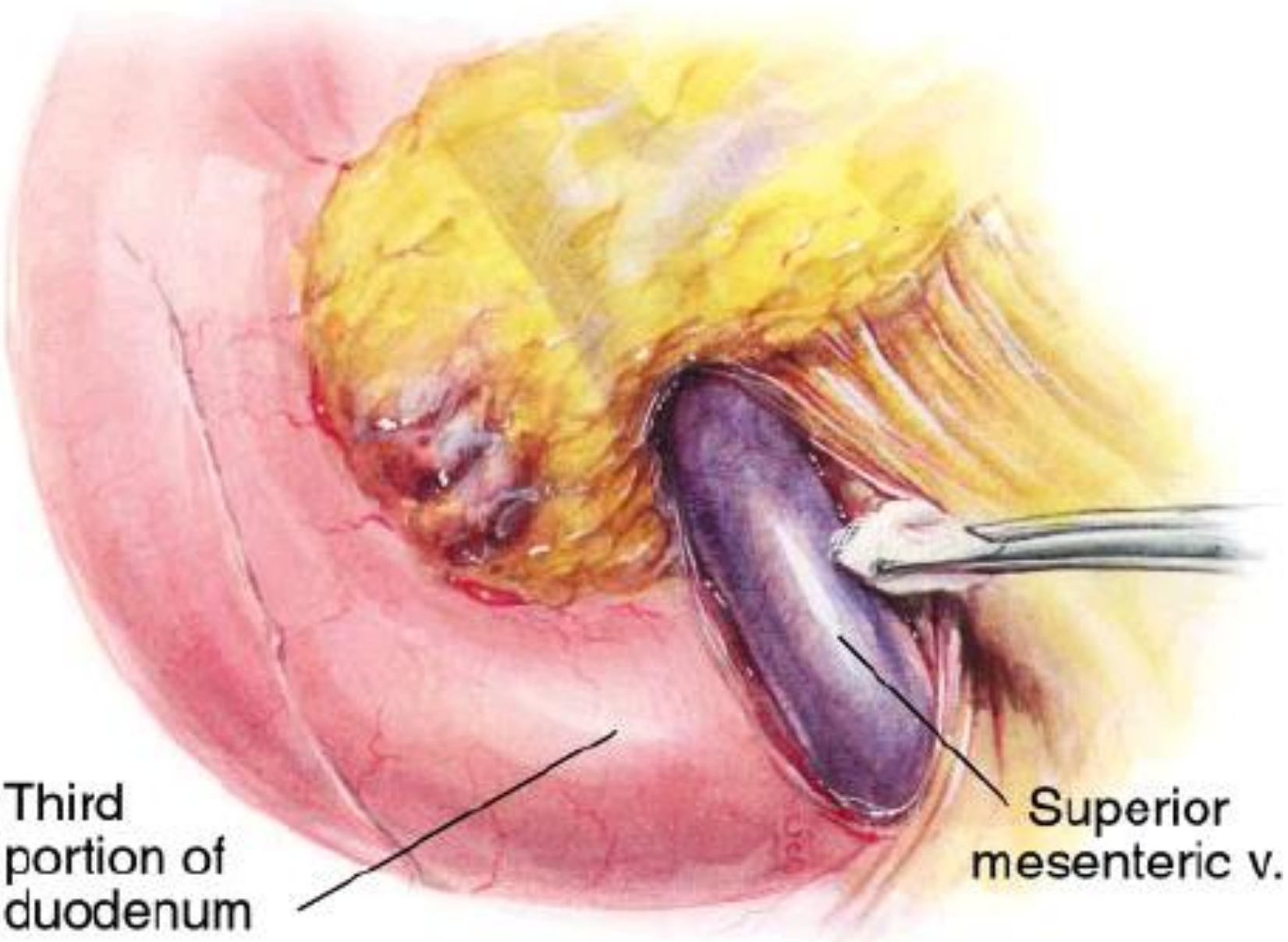


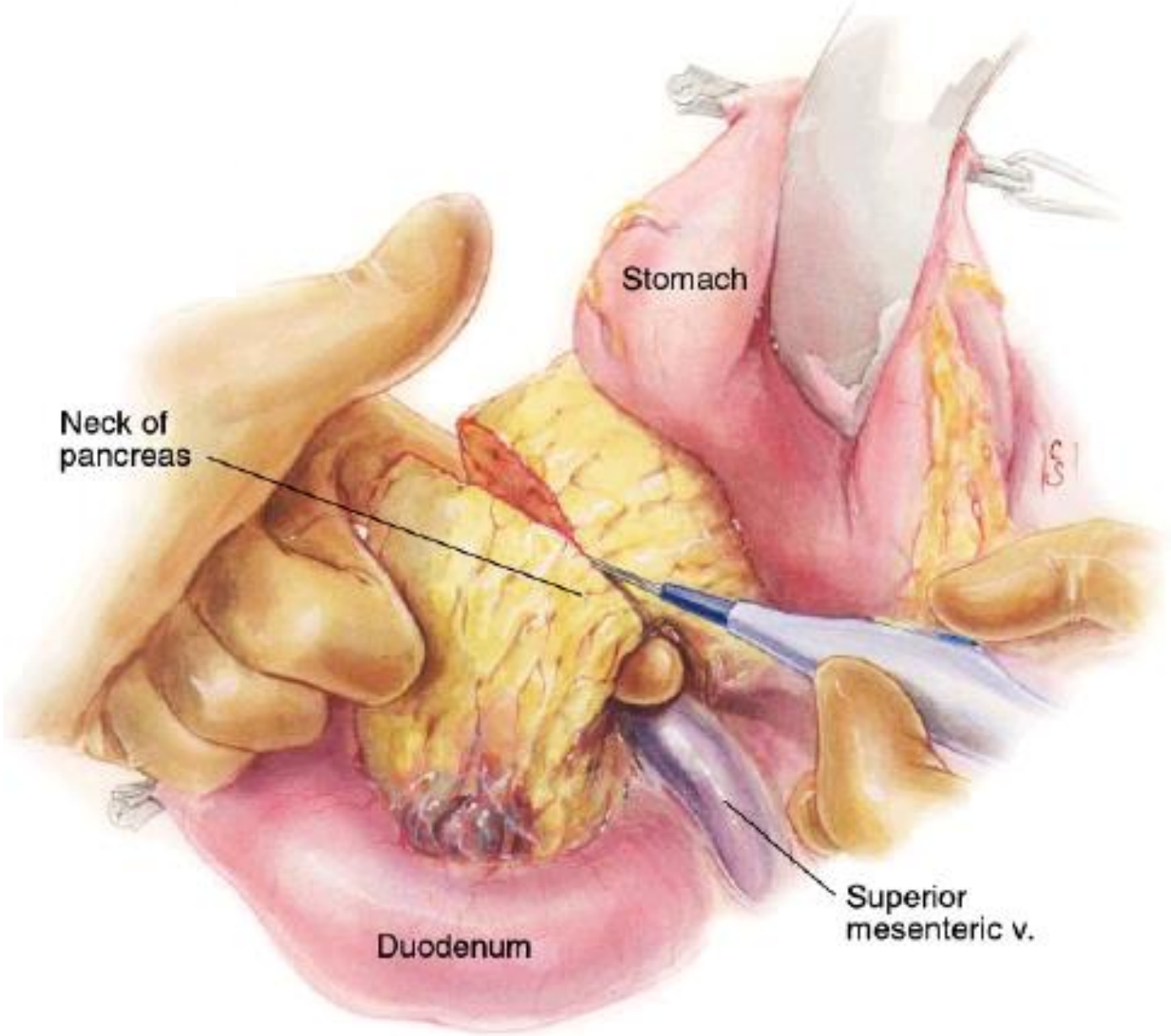



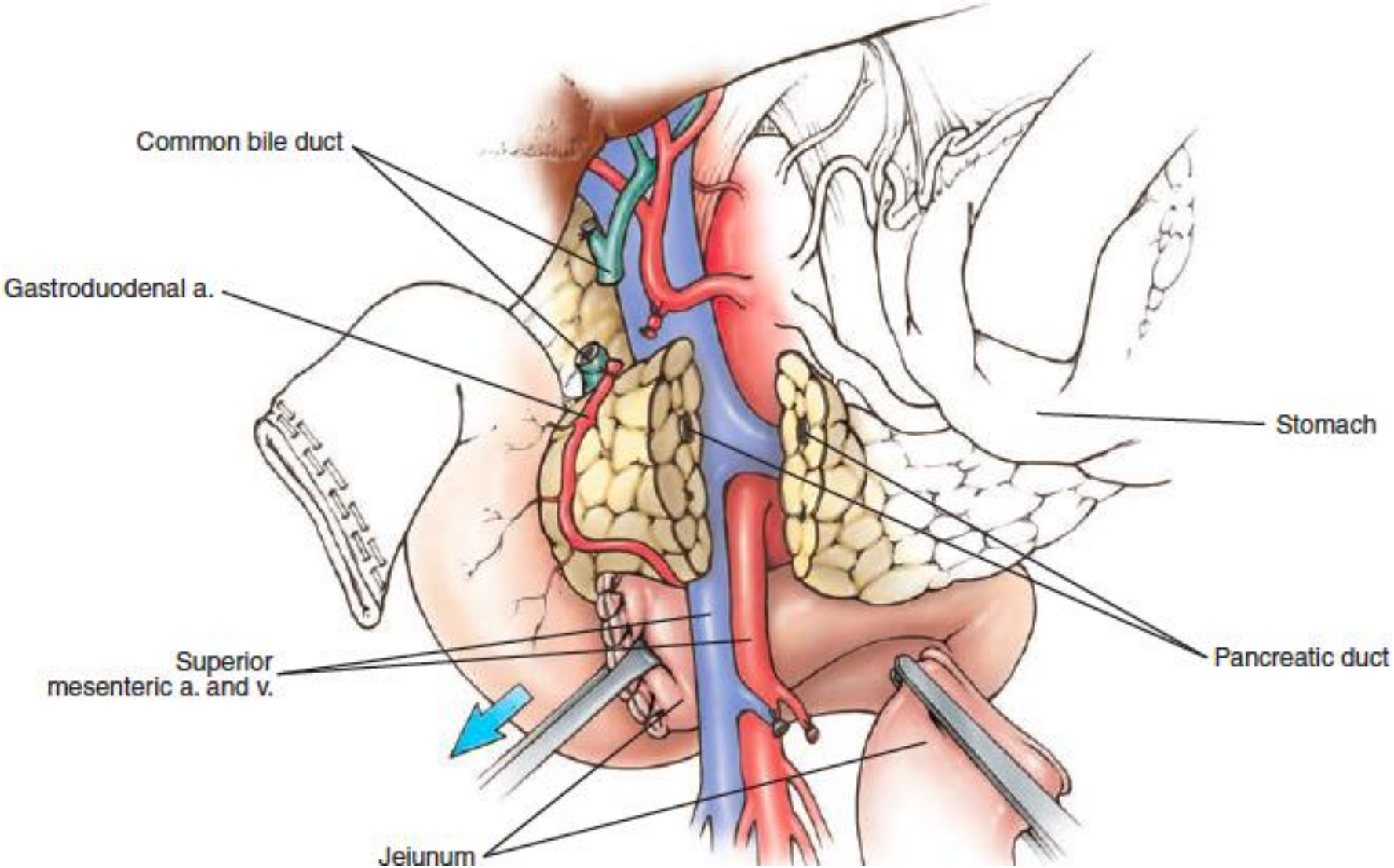

Beger HG, Matsuno S, Cameron JL, 2010

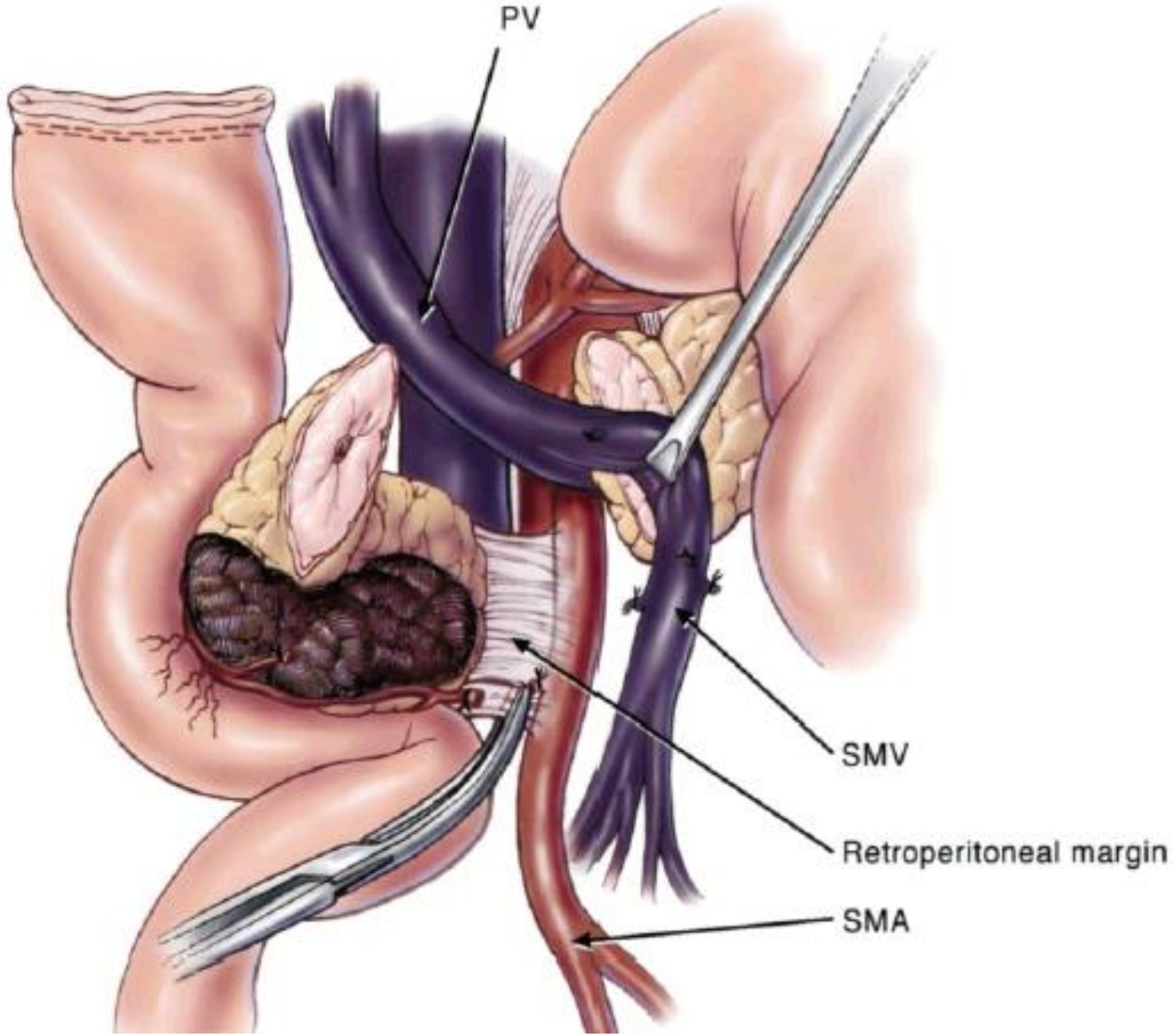

Hepatic a.
Common bile duct
Gastroduodenal a.

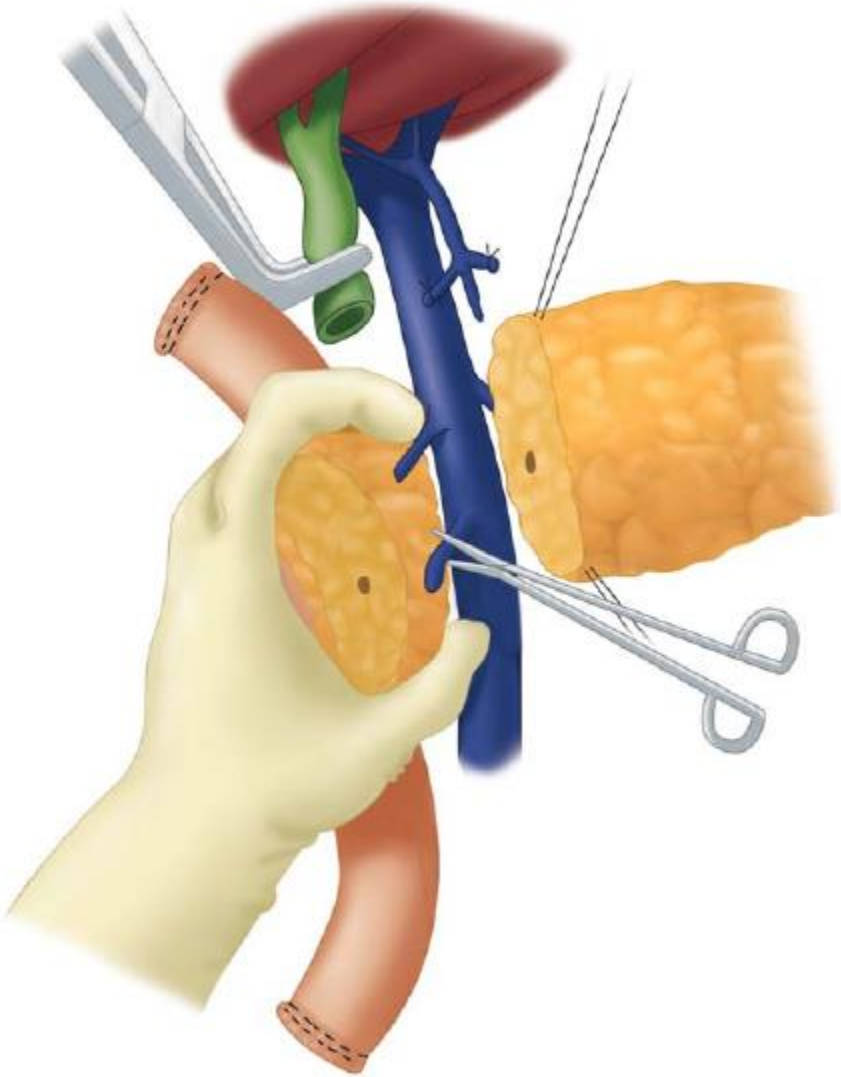

Gallbladder
Hepatic a.
Portal v.
Gastroduodenal a.
Divided first portion of duodenum
Divided right gastroepiploic a.


Third
portion of
duodenum
Superior
mesenteric v.


Stomach
Neck of pancreas
Duodenum
Superior mesenteric v.


Common bile duct
Gastroduodenal a.
Stomach
Pancreatic duct
Superior
mesenteric a. and v.
Jejunum


PV
SMV
Retroperitoneal margin
SMA

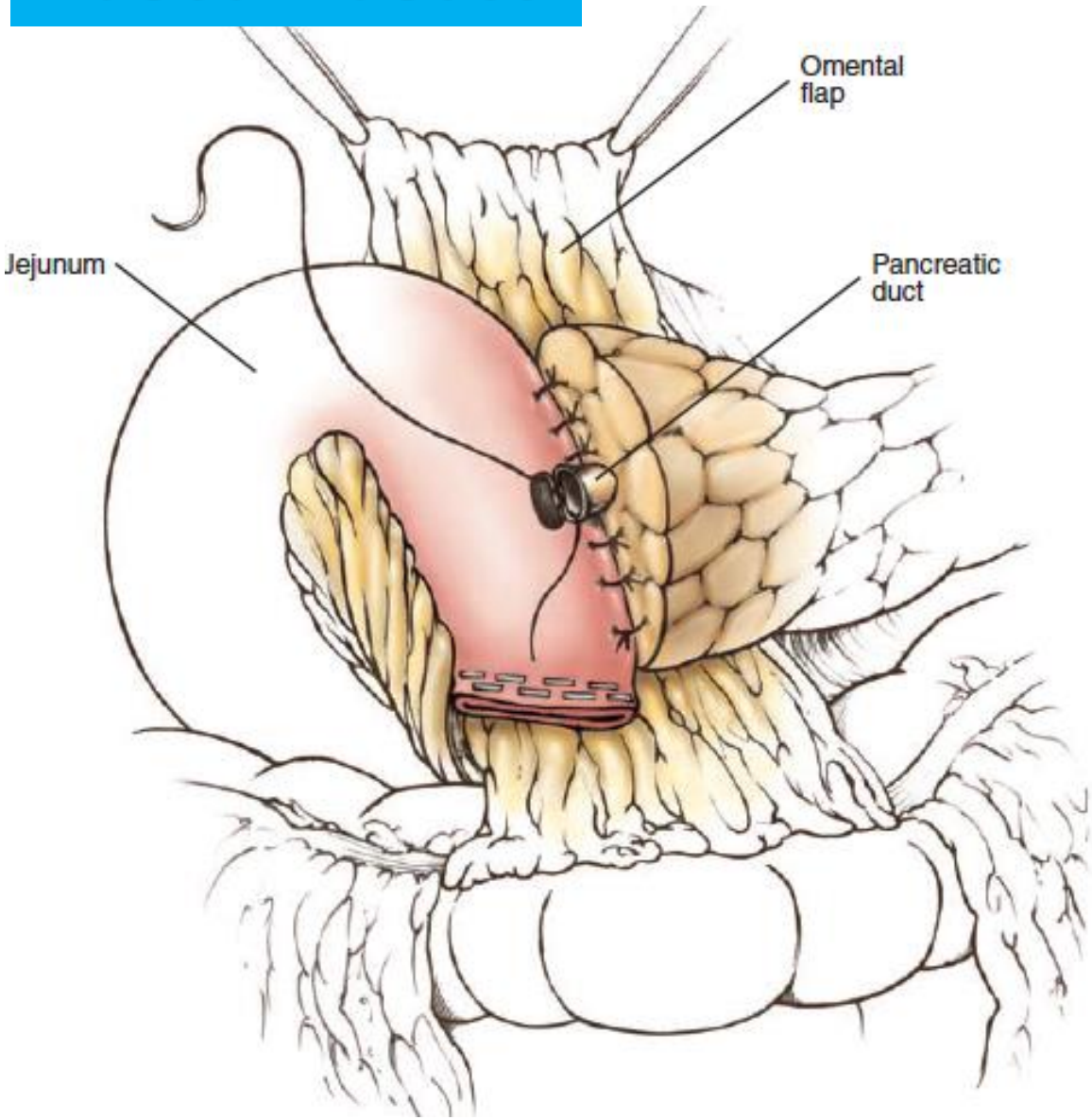


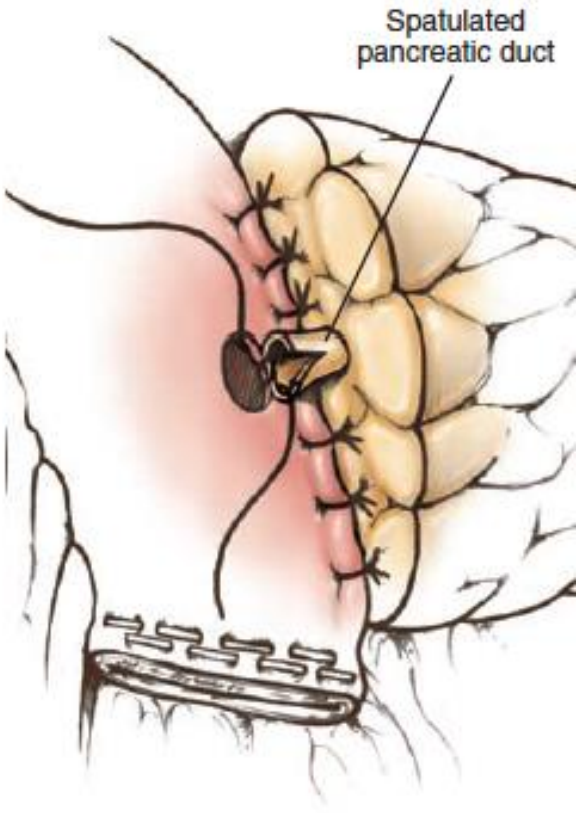
Fisher WE, et al 2014

# Reconstrução

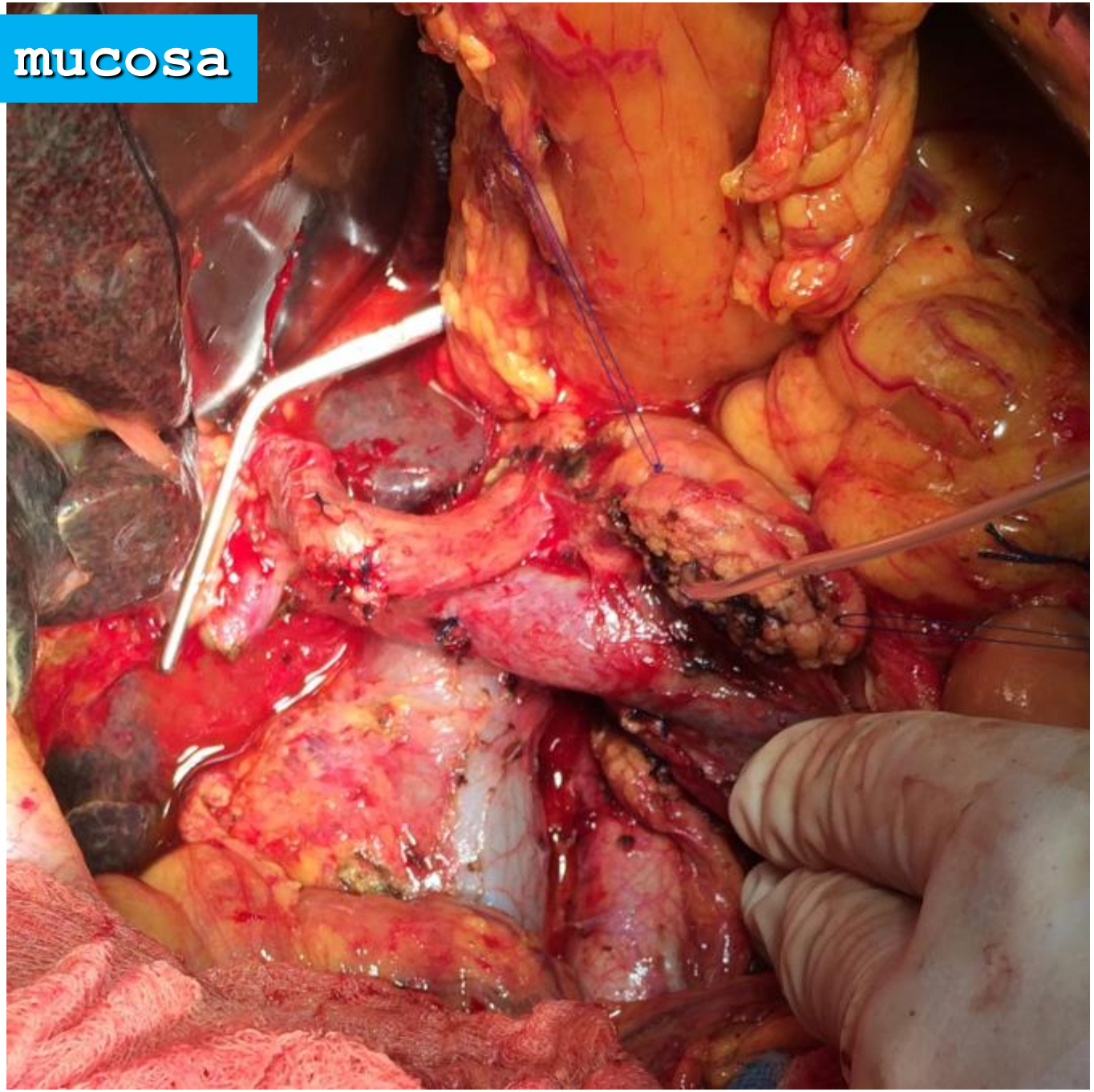
- ❑ Pâncreas
- ❑ Via biliar
- ❑ Estômago

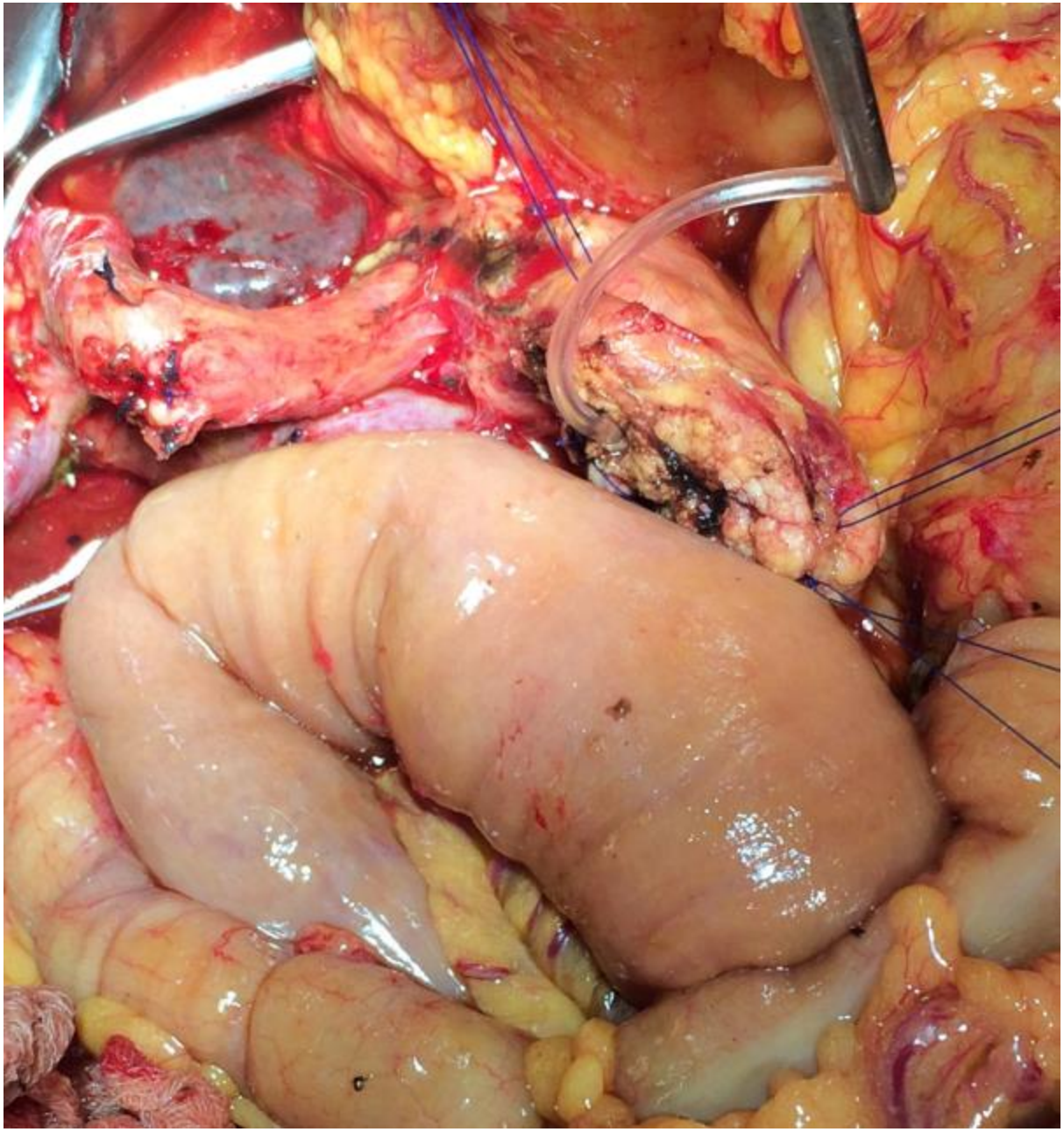
# Ducto mucosa

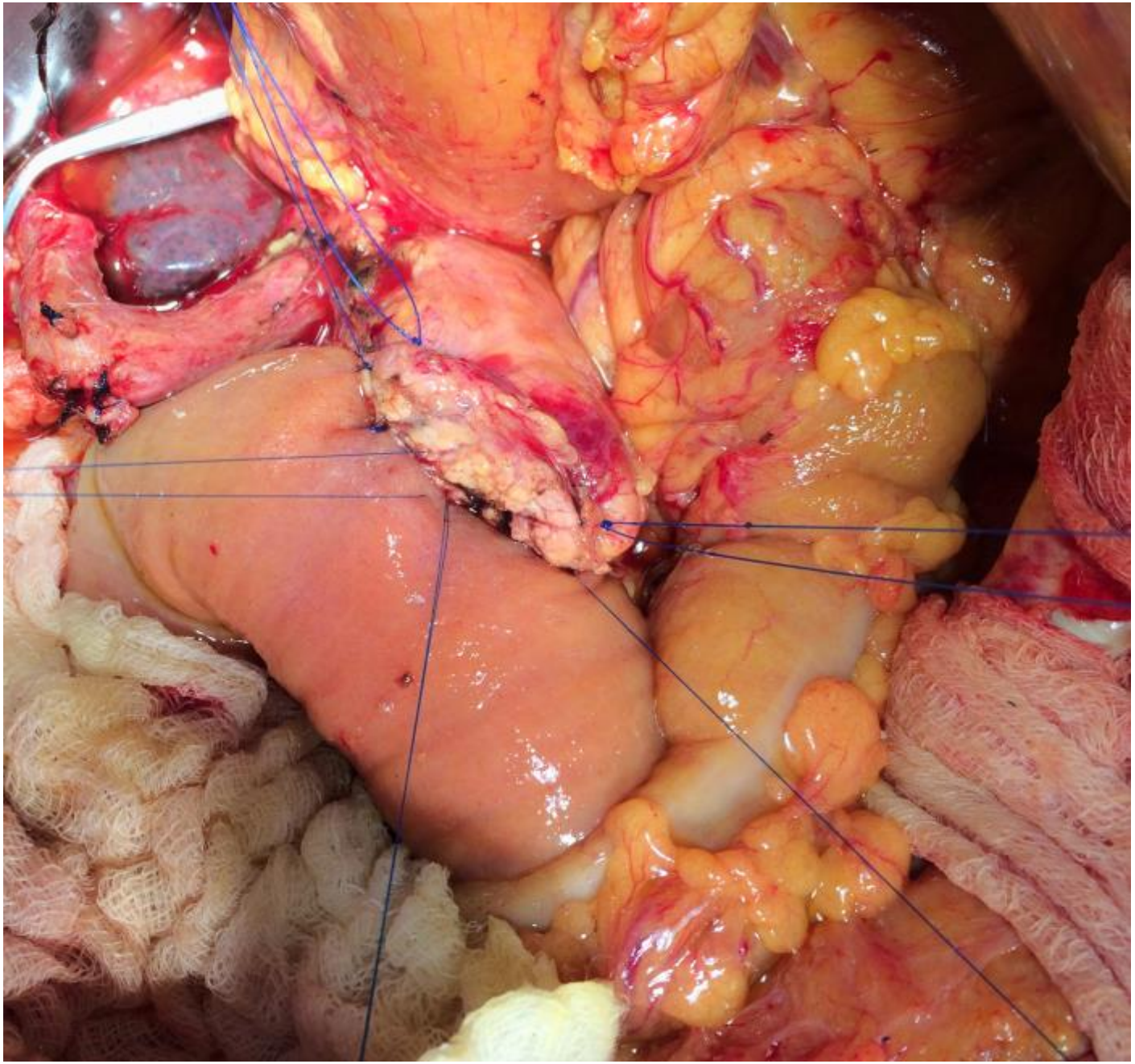


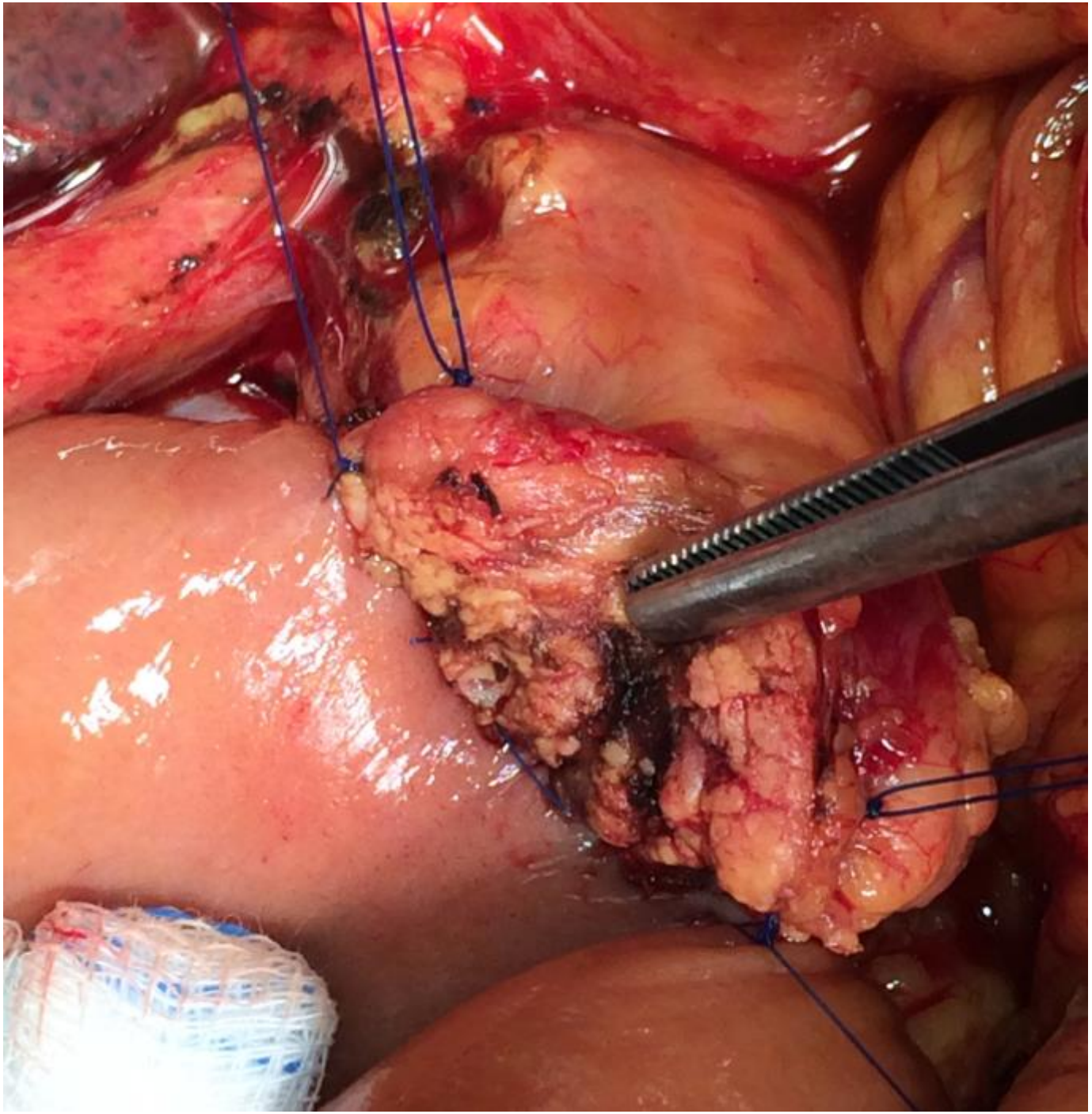



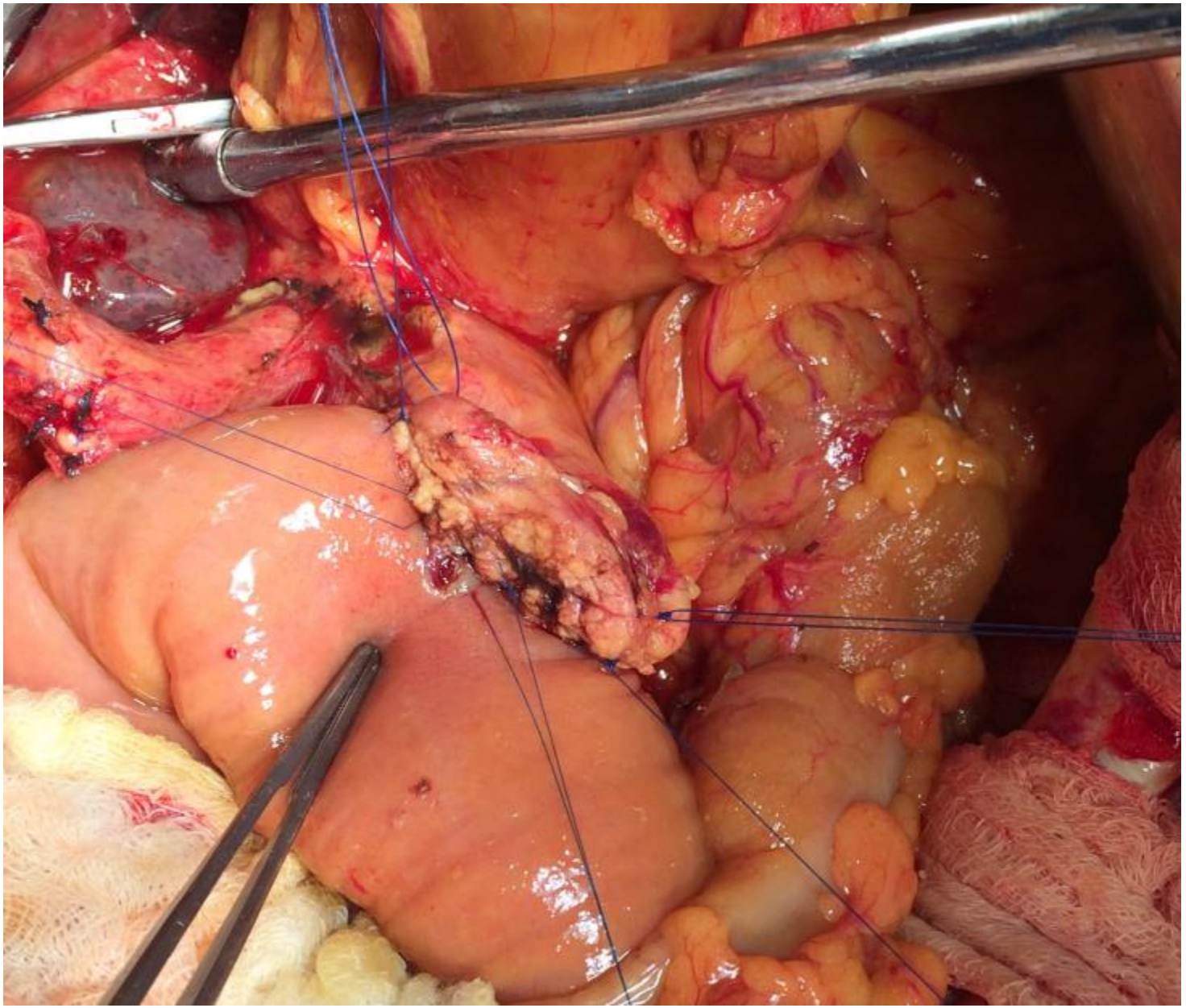
# Ducto mucosa

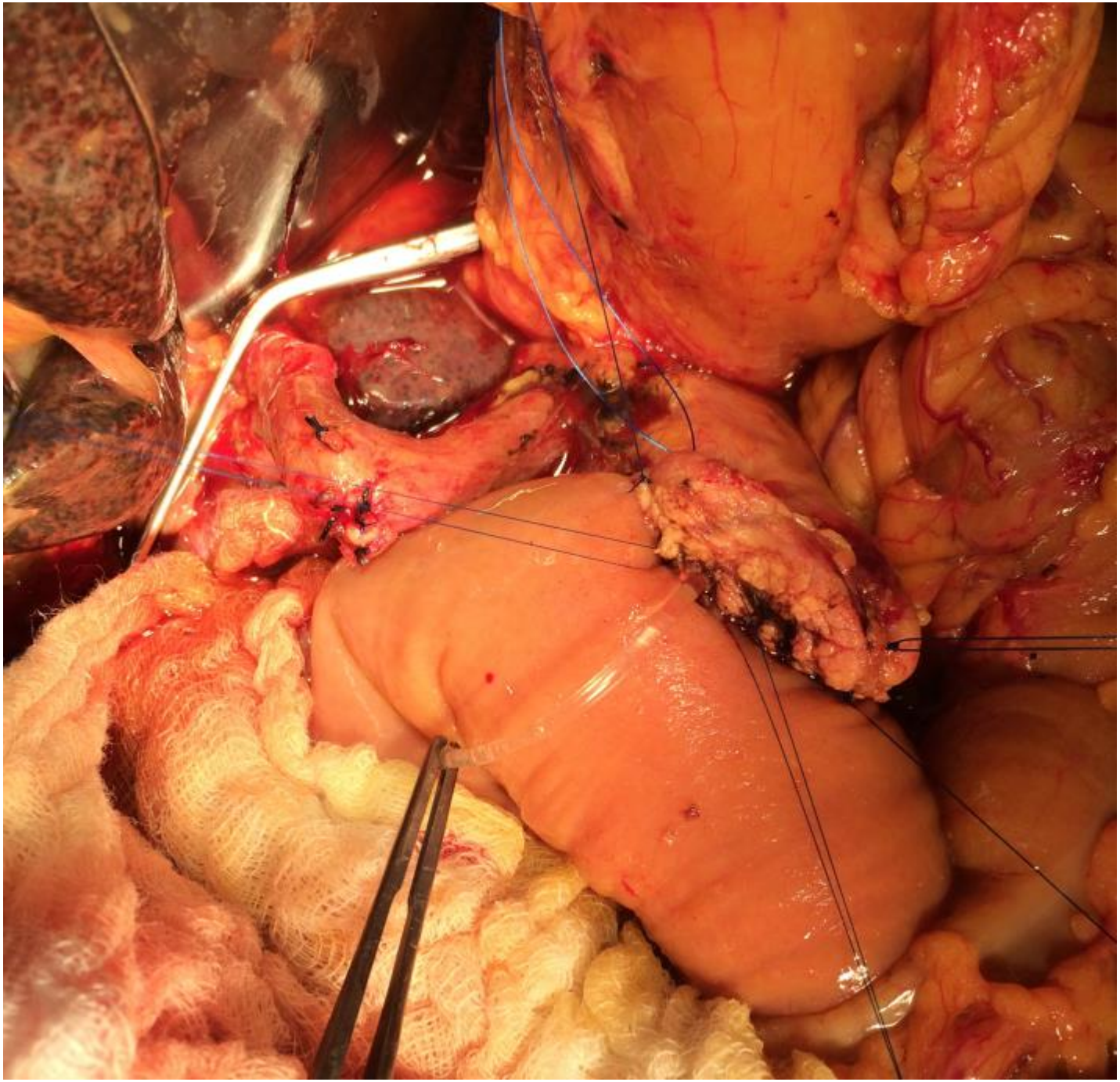


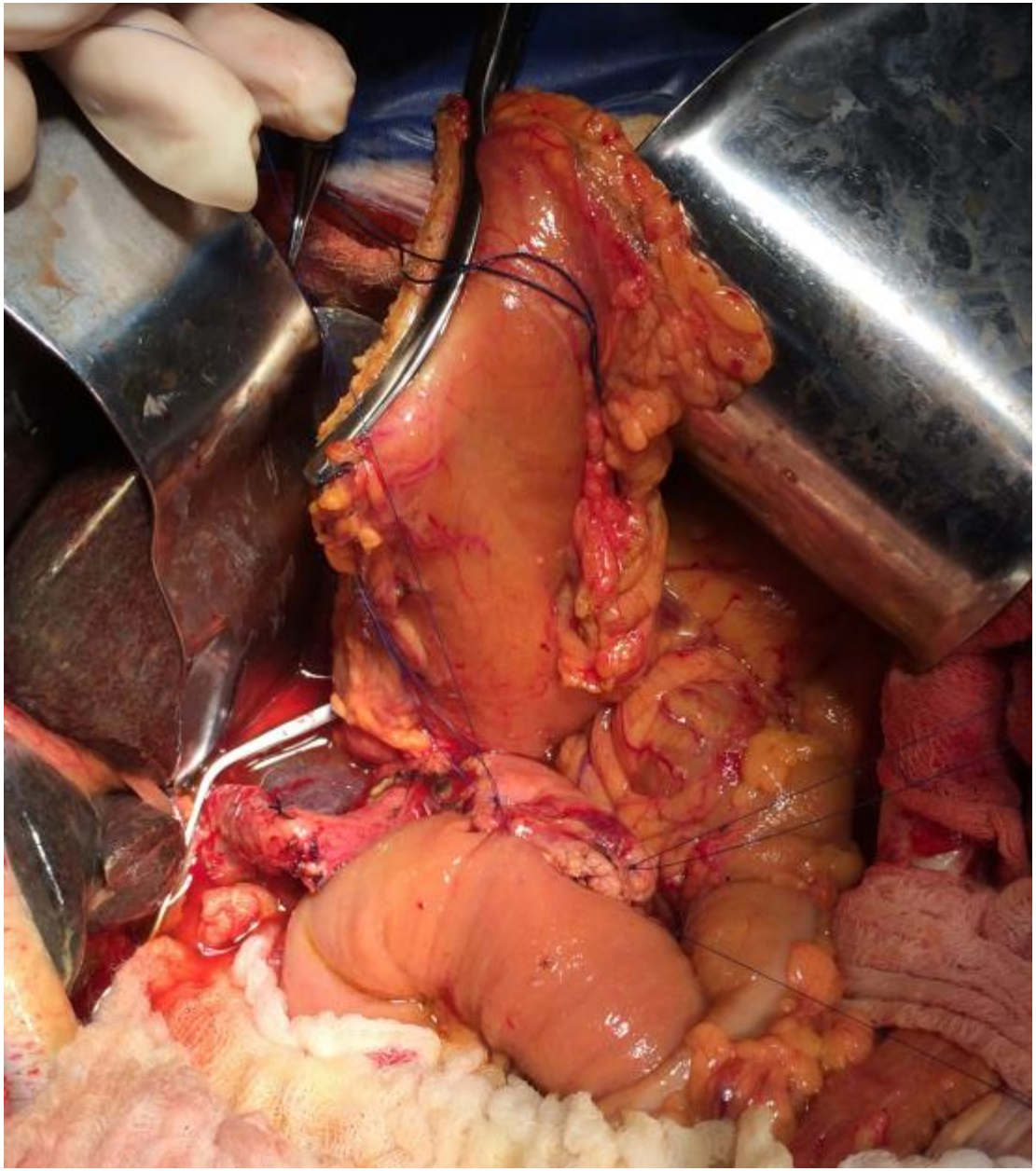


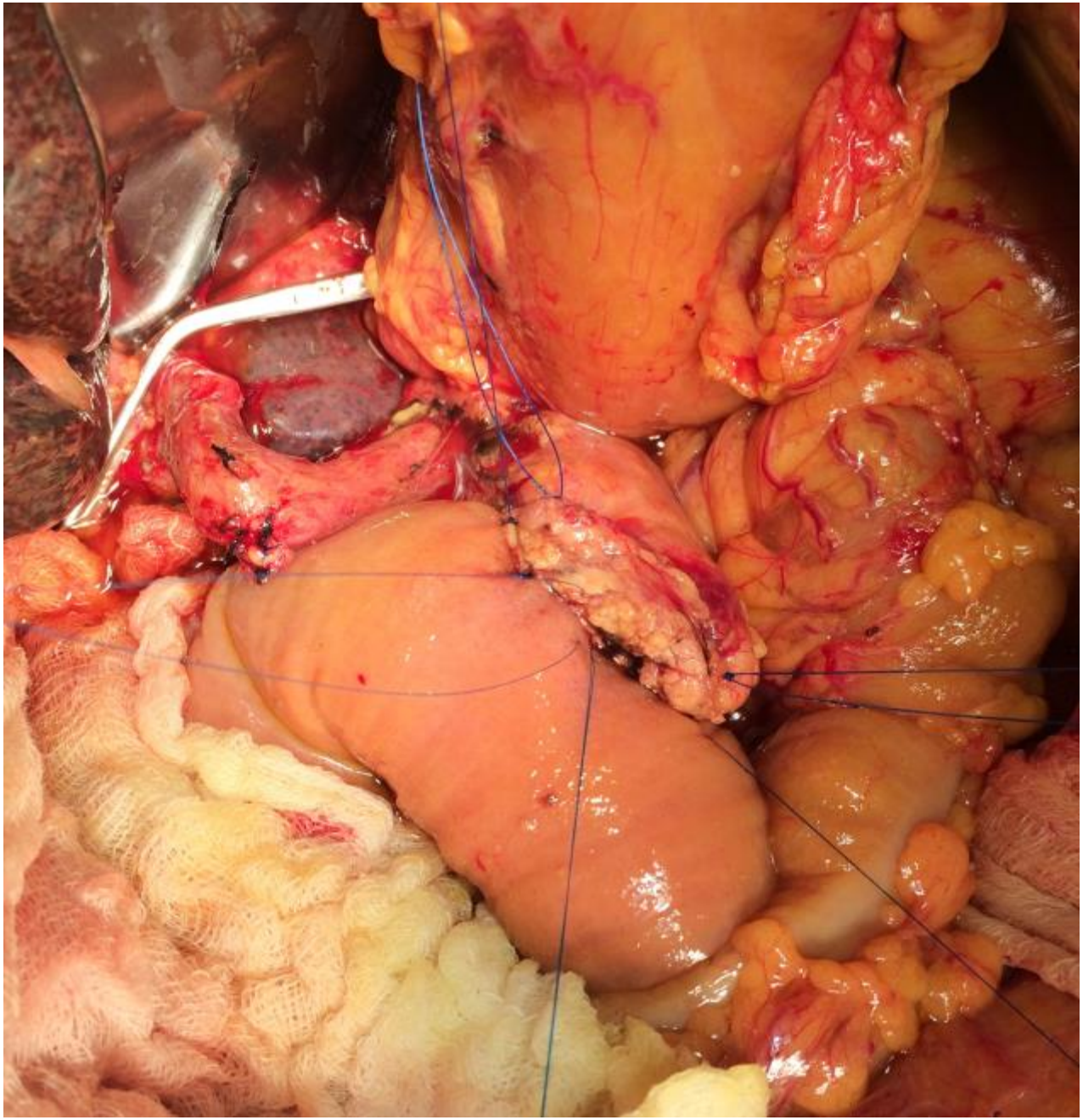


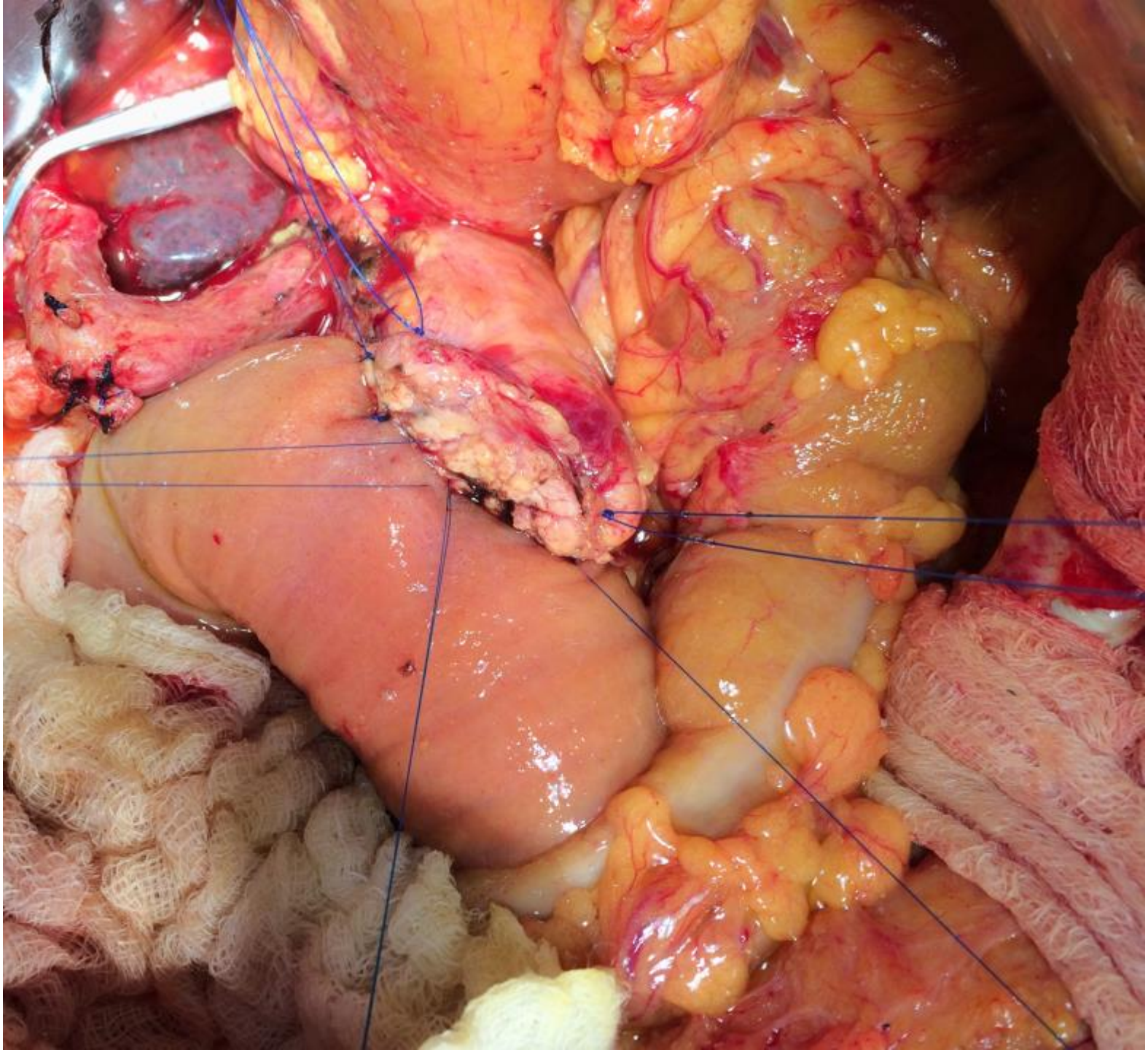


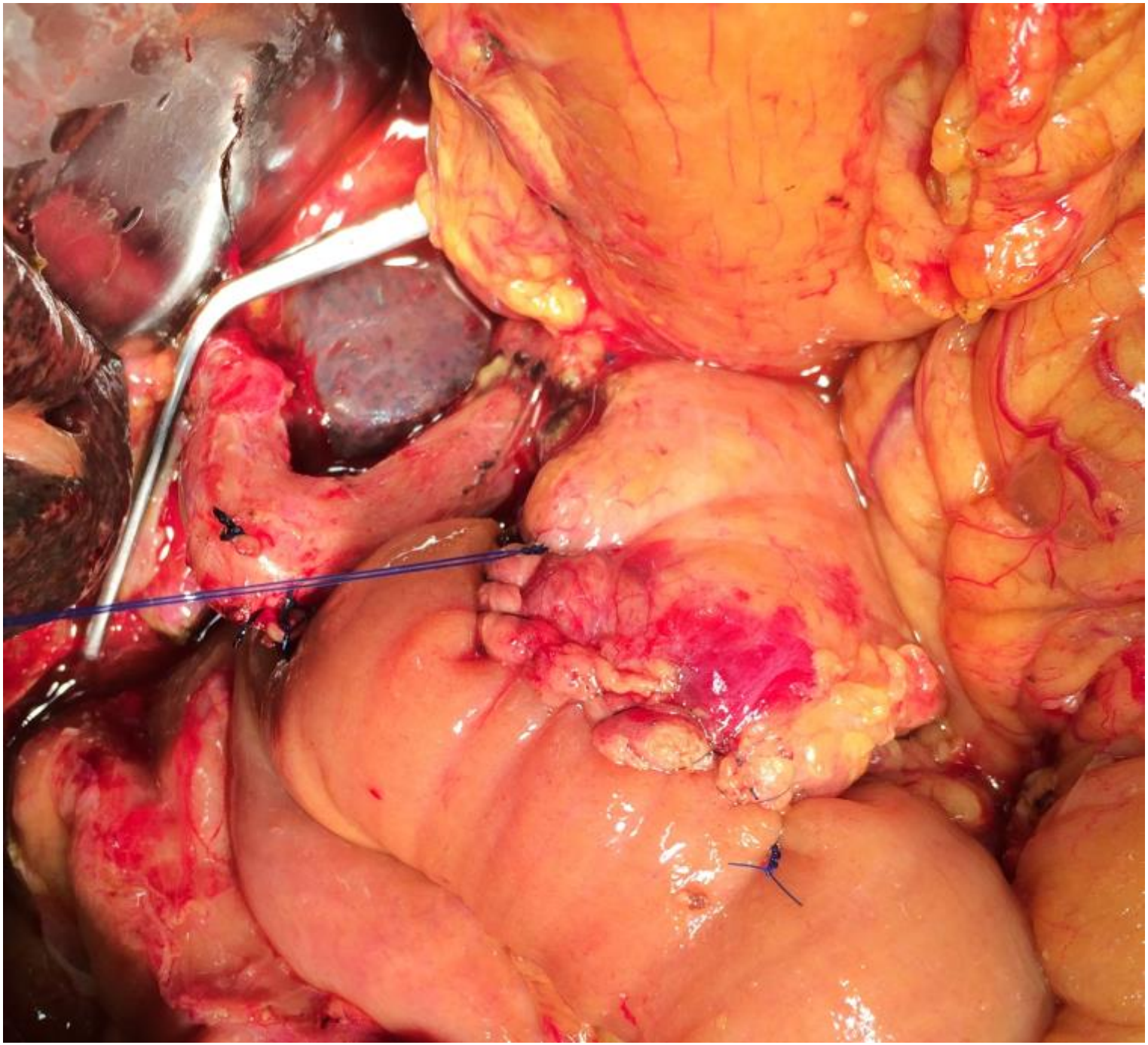




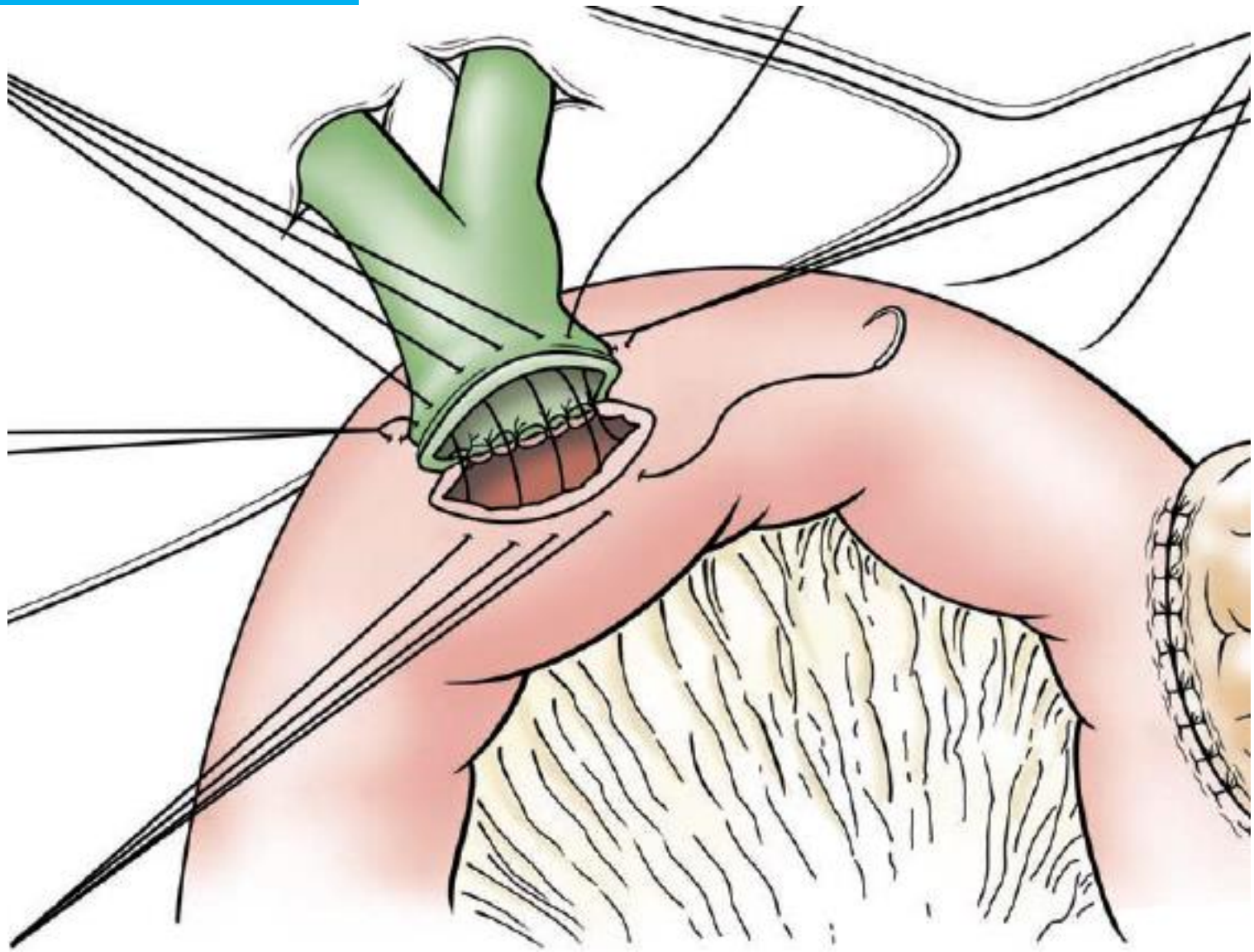




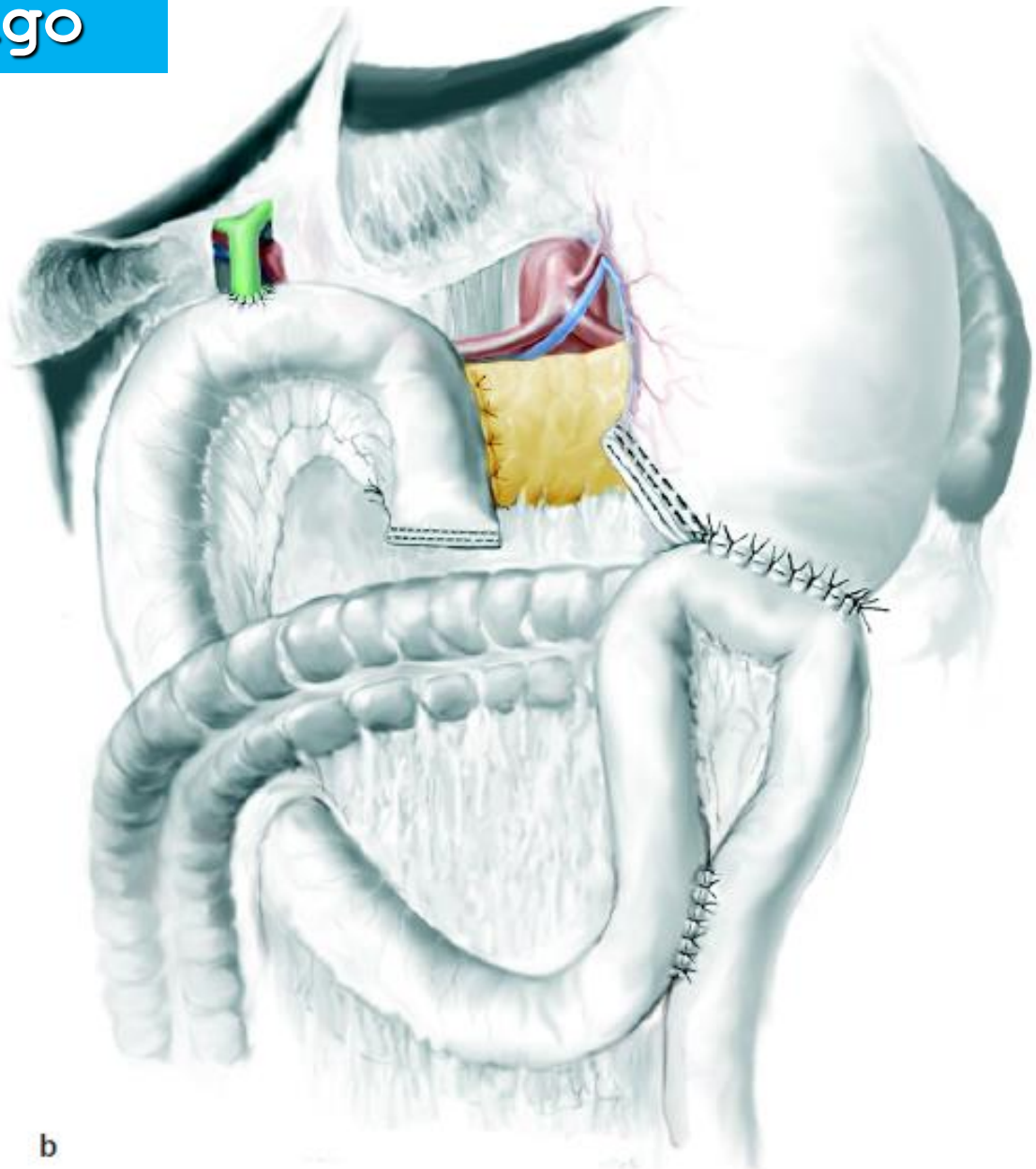




# Via biliar



# Estômago



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Beger HG, Matsuno S, Cameron JL, 2010

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DOI: 10.12659/AJCR.900792

Received: 2016.07.27
Accepted: 2016.09.16
Published: 2016.XX.XX

# Performance of Laparoscopic Pancreatoduodenectomy For Solid Pseudopapillary Tumor of Pancreas

Authors' Contribution:
Study Design A
Data Collection B
Statistical Analysis C
Data Interpretation D
Manuscript Preparation E
Literature Search F

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ADF 1 José Maria A. Moraes Junior
AEF 1 Anmara Moura Moraes
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**Laparoscópica**

Torres OJM,et al. Am J Case Rep 2016;17:16-21

# Complicações

**Table 4.** Morbidity

| Complication | n | % |
|---|---|---|
| Delayed gastric emptying | 410 | 21 |
| Postoperative pancreatic fistula | 295 | 15 |
| Wound infection | 222 | 11 |
| Cardiac event | 69 | 3 |
| Pneumonia | 38 | 2 |
| Delayed bleeding | 32 | 2 |
| Chyle leak | 28 | 1 |
| Any complication | 894 | 45 |

Cameron JL et al. J Am Coll Surg 2015;220:530-6

*ABCD Arq Bras C/r Dig, São Paulo*
*14(2):101-103, 2001*

**RELATO DO CASO**

# MANAGEMENT OF POSTOPERATIVE PANCREATIC FISTULA BY LIGATION OF THE PANCREATIC DUCT

Orlando Jorge Martins **TORRES**, Alzira de Alencar Lima **LINS**, Paulo Márcio Sousa **NUNES** and Itaguacy Rodrigues **COELHO**

ABCDDV/298

Torres OJM, Lins AAL, Nunes PMS, Coelho IR. Management of postoperative pancreatic fistula by ligation of the pancreatic duct. **ABCD Arq Bras Clr Dig,** São Paulo, 14(2): 101-103, 2001.

**ABSTRACT** - Pancreatic fistula is a serious and potentially lethal complication after pancreaticoduodenectomy.

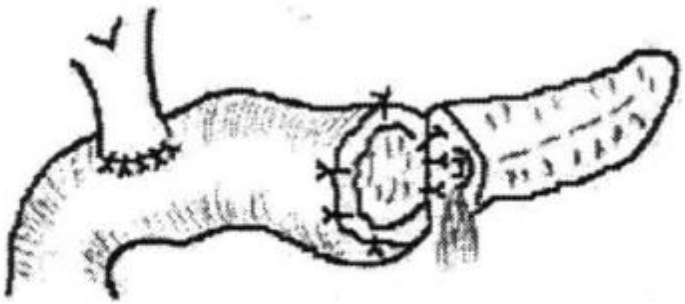


**FIGURE 1 - Pancreaticojejunostomy and anastomotic leak**

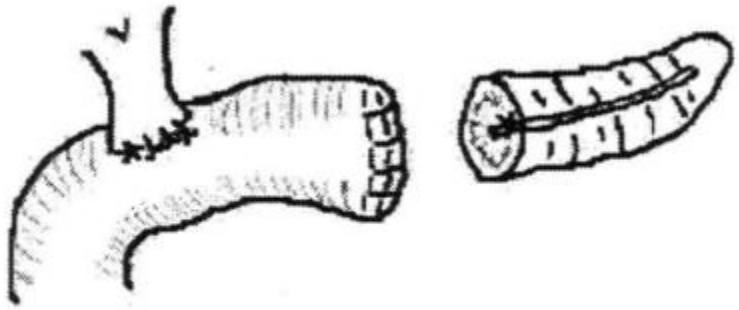


FIGURE 2 Closure of jejunal stump and pancreatic duct ligation.

Torres OJM,et al. Arq Bras Cir Dig 2001;14:101-3.

# Radioterapia

- 45-46 Gy em frações de 1,8-2 Gy
  - Leito, anastomoses e Ln adjacentes
- 5-9 Gy
  - Leito, anastomoses
- xxxxx

NCCN Clinical Practice Guidelines in Oncology - Version 2, 2015

# Tratamento paliativo

- Duodenopancreatectomia
- Icterícia
  - Prótese endoscópica
  - Prótese por intervenção
  - Cirurgia
    - Aberta
    - Laparoscopia
- Obstrução gástrica
- Dor
- Melhorar qualidade de vida

Table 70.1 Pancreatic cancer: clinical problems and palliative methods.

| |
|---|
| *Biliary obstruction* |
| Endoscopic methods (ERCP and EUS) |
| Percutaneous transhepatic cholangiography (PTC) |
| Combined ERCP and PTC |
| *Gastric outlet obstruction* |
| Endoscopic |
| Percutaneous |
| *Abdominal pain* |
| EUS-guided neurolysis |
| Percutaneous neurolysis |
| ERCP drainage of pancreatic duct obstruction |

ERCP, endoscopic retrograde cholangiopancreatography; EUS, endoscopic ultrasound.

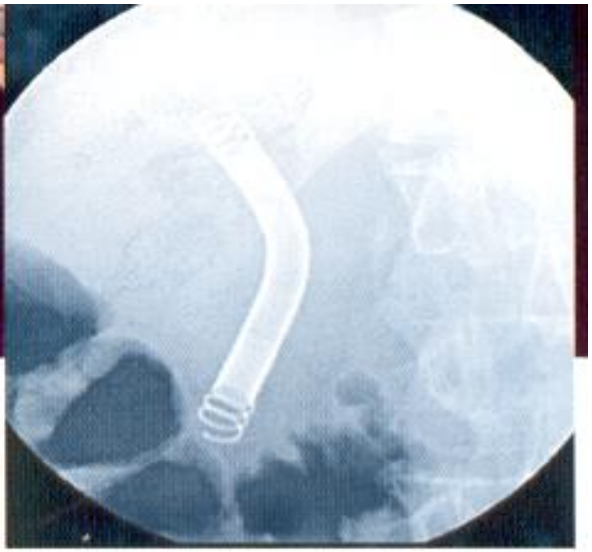
# Icterícia

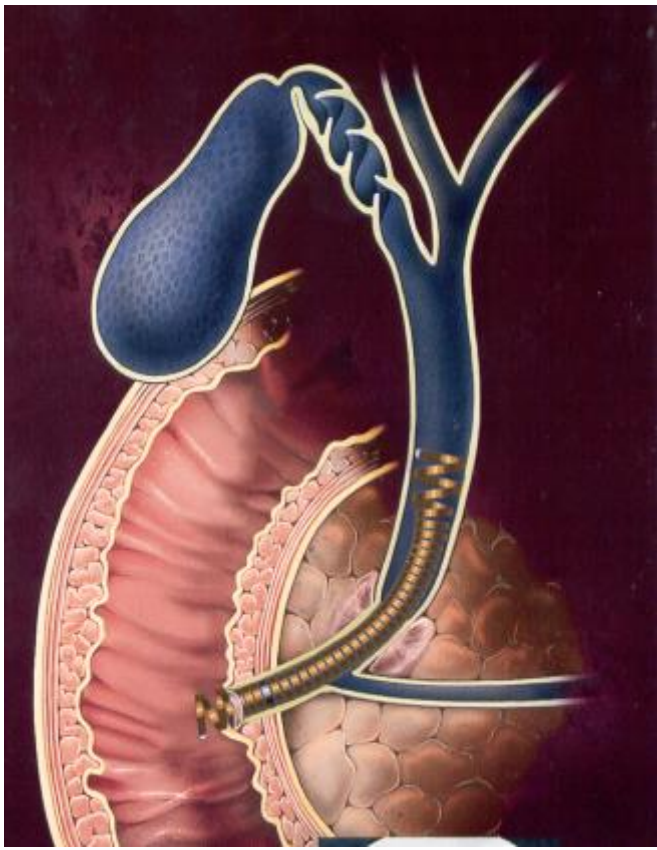
Table 70.2 Approaches to palliation of obstructive jaundice.

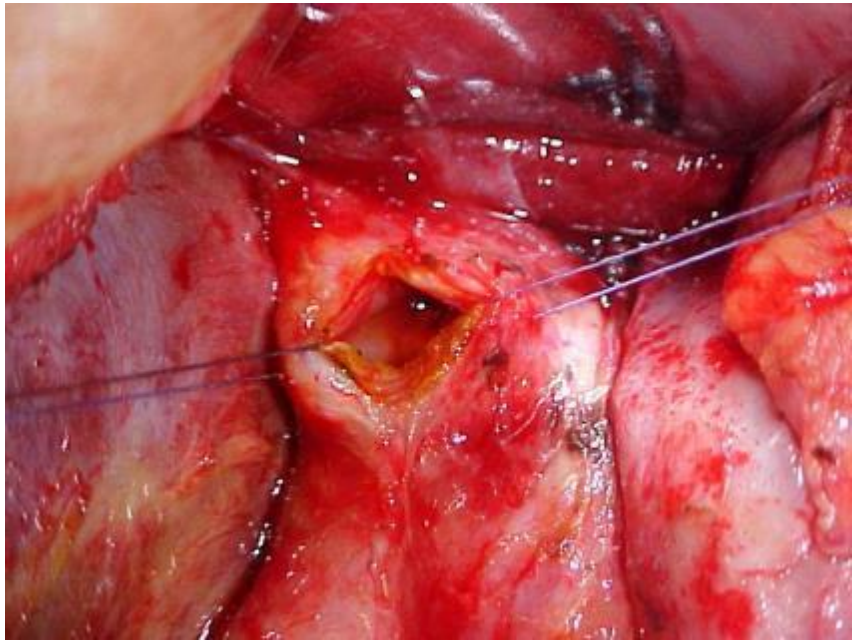
| | Advantages | Disadvantages |
|---|---|---|
| Surgical | Lifelong palliation usual<br>Simultaneous palliation of gastric outlet obstruction<br>Simultaneous palliation of pain (intraoperative nerve block) | Most invasive<br>Morbidity and mortality |
| Percutaneous | Nonsurgical | Pain, bleeding<br>External drains |
| Endoscopic | Nonsurgical<br>Relatively painless<br>Outpatient treatment possible | Stents may occlude<br>Expertise variable<br>Complications (perforation, pancreatitis, bleeding) |

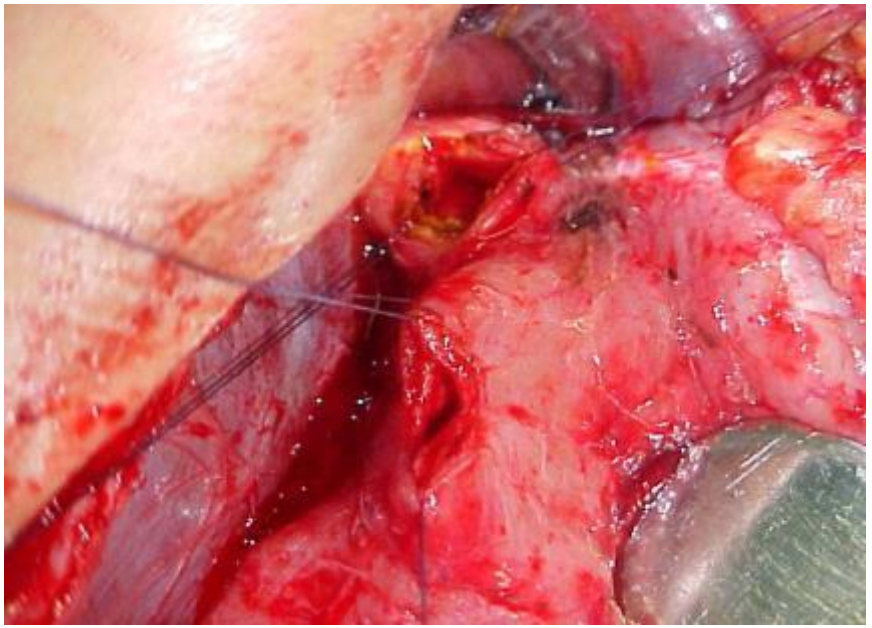
Beger HG, et al. The pancreas, 2° edition - 2008

# Prótese endoscópica

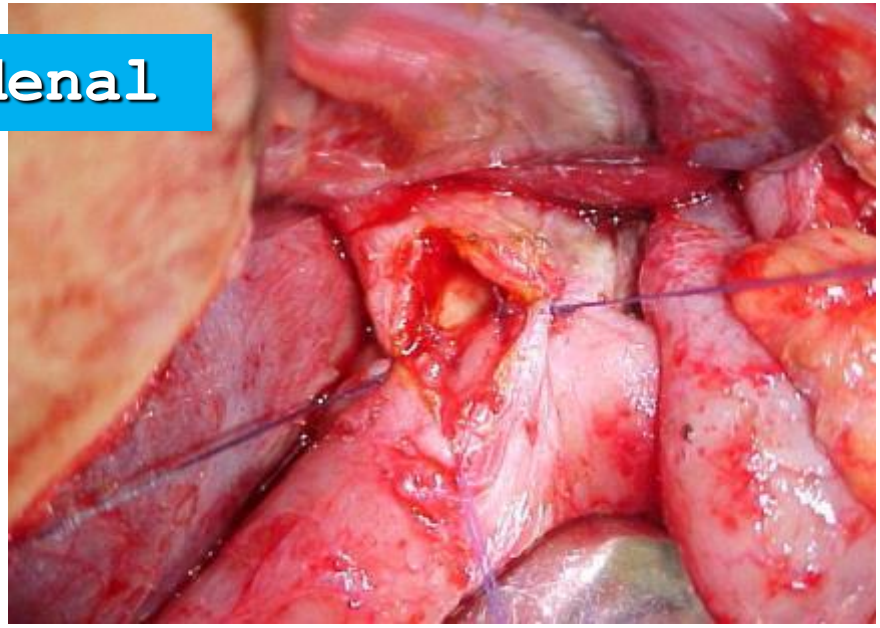


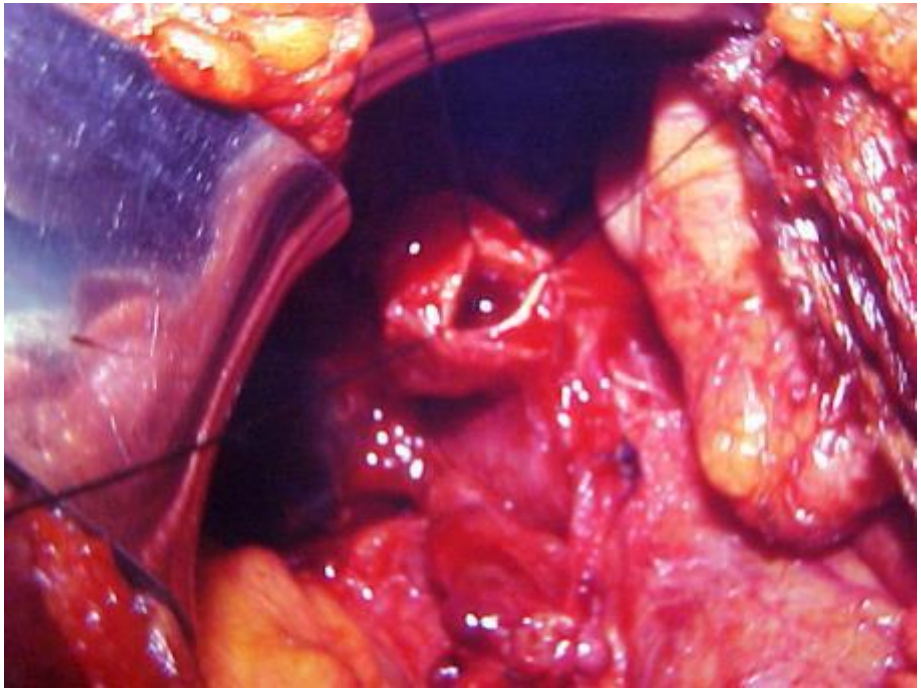


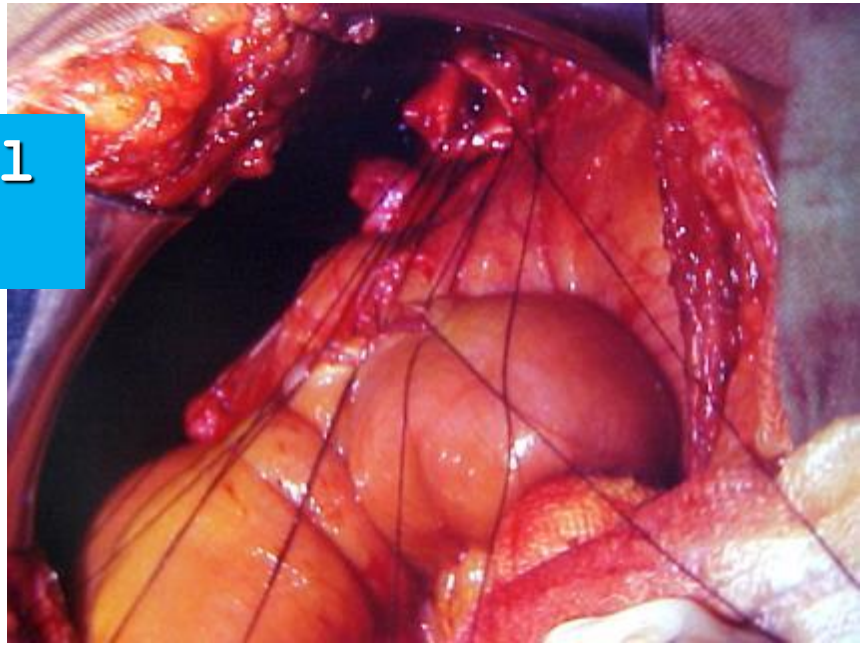




# Anastomose colédoco-duodenal







# Anastomose hepático-jejunal em Y de Roux

# Obstrução duodenal

- 15-20% obstruem
- Gastrojejuno paliativa desnecessária


# VIII CONGRESSO BRASILEIRO DE CIRURGIA DO FÍGADO, PÂNCREAS E VIAS BILIARES

CB-IHPBA 2017

SAVE THE DATE

**7 a 9 de setembro de 2017**

PORTO ALEGRE

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