



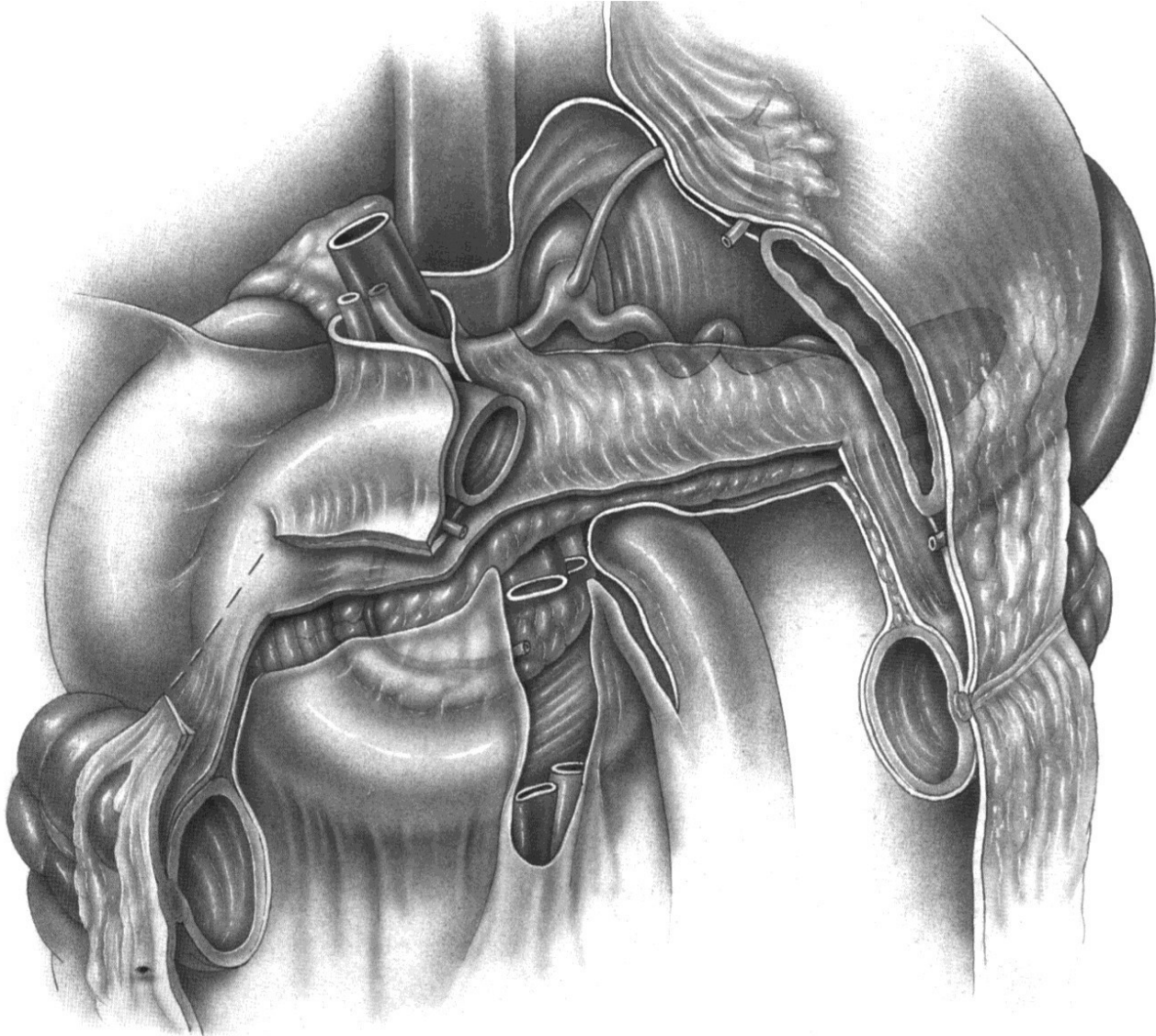
Pancreatic surgery

Dr. med. Markus Quante

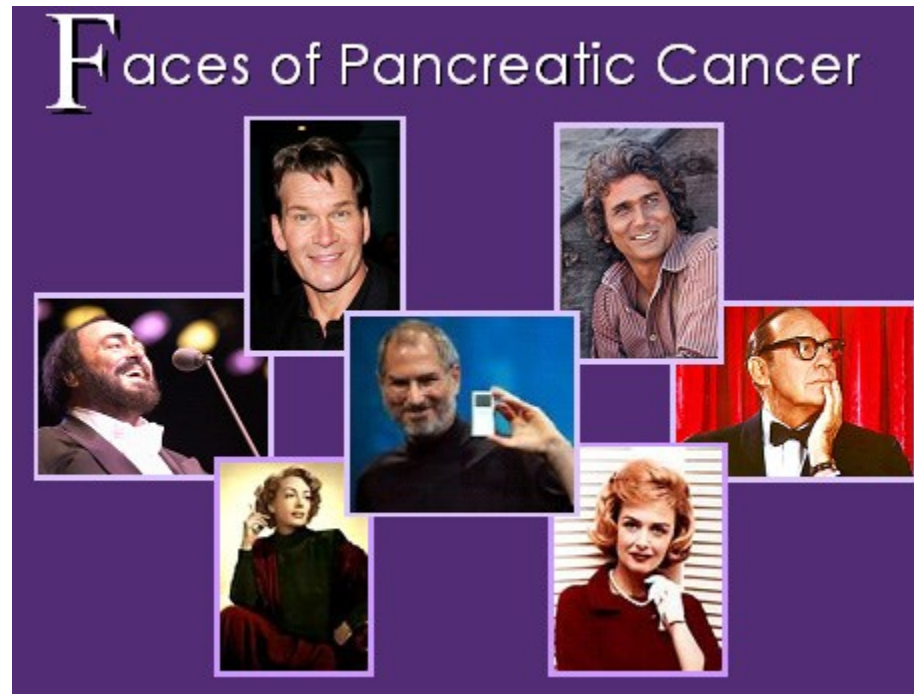
Universitätsklinik für Allgemeine, Viszeral- und Transplantationschirurgie

(markus.quante@med.uni-tuebingen.de)

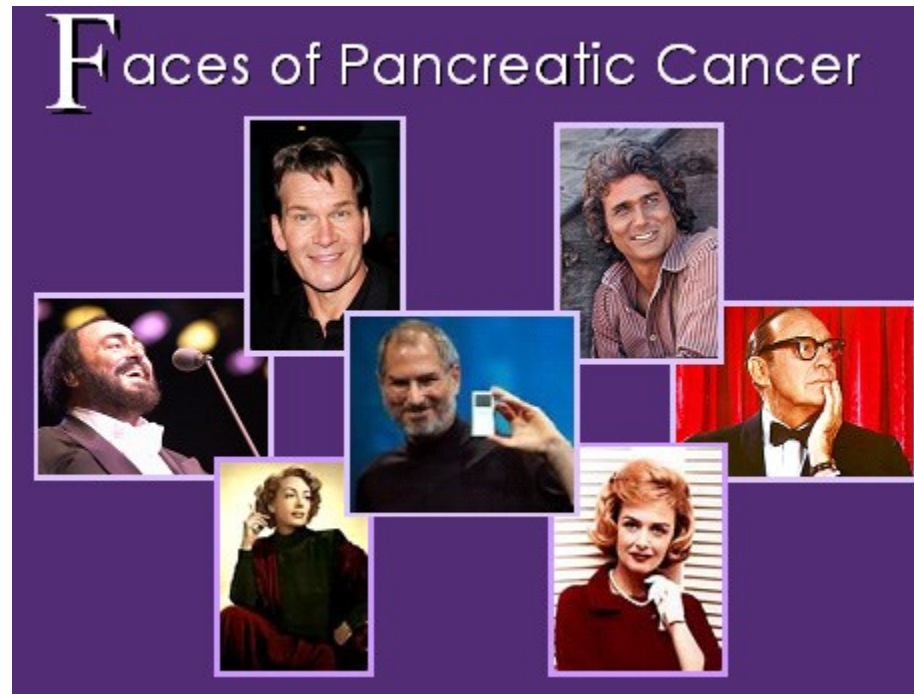
„The beast“ of abdominal organs.....



A few faces you probably recognize....



A few faces you probably recognize....



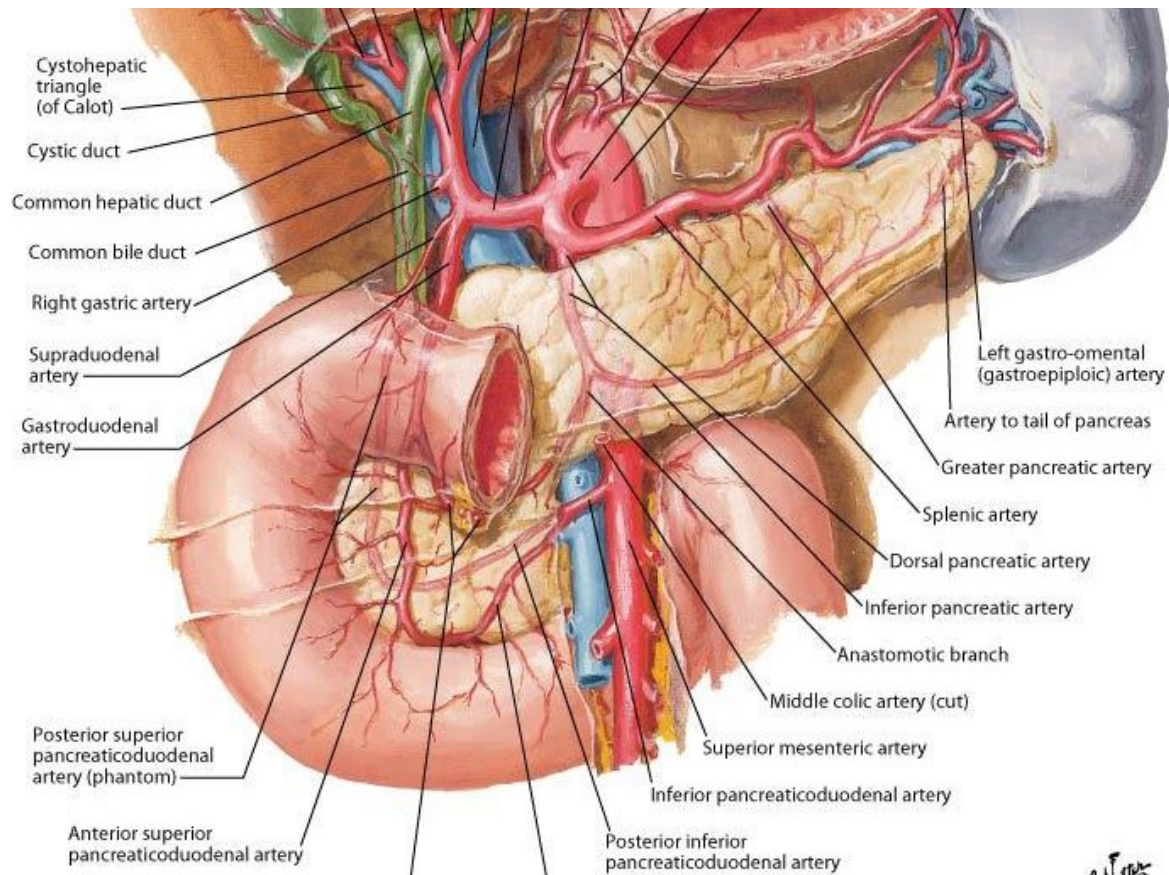
The #4 cancer killer of men and women in the US

Outline



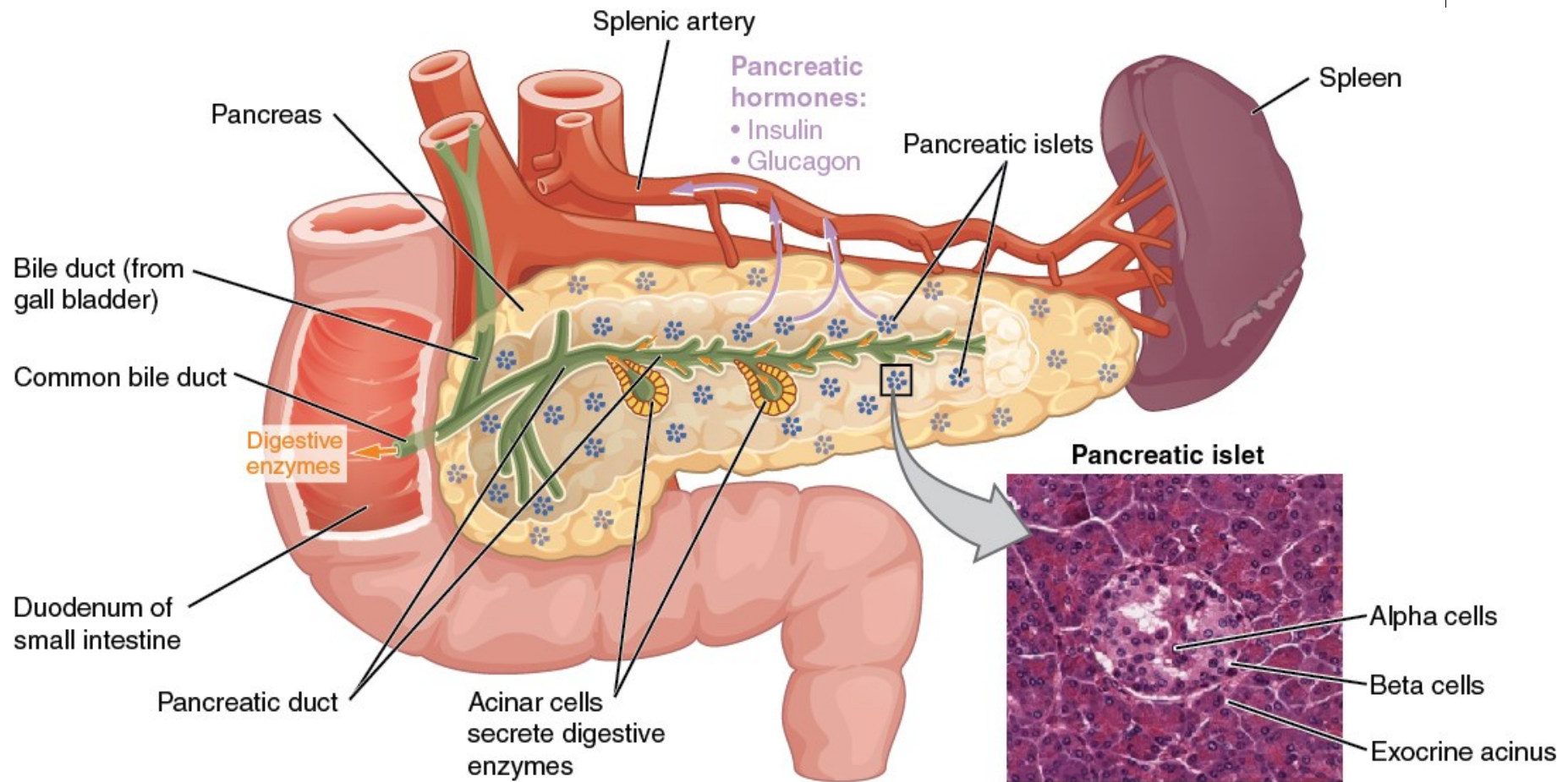
- 1) Topography and function of the pancreas
- 2) History of pancreatic surgery
- 3) Acute/chronic pancreatitis
- 4) Pancreatic cancer
- 5) Pancreas transplantation

Topography



www.pancreapedia.org

Endocrine and exocrine function



Outline



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History of pancreatic surgery

1. Pankreatoduodenektomie
Kausch W, 1912

Present-day surgery of the pancreas
Whipple AO, 1942

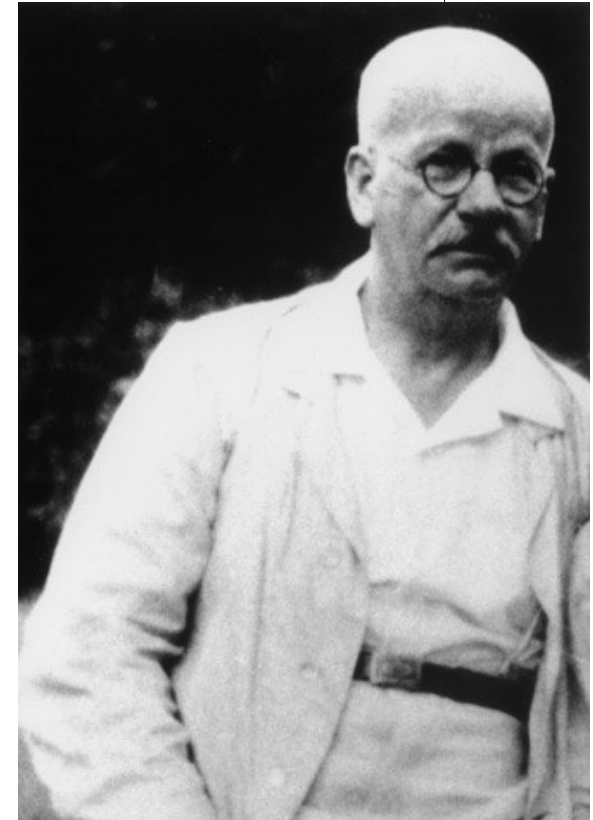
History of pancreatic surgery

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History of pancreatic surgery

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History of pancreatic surgery

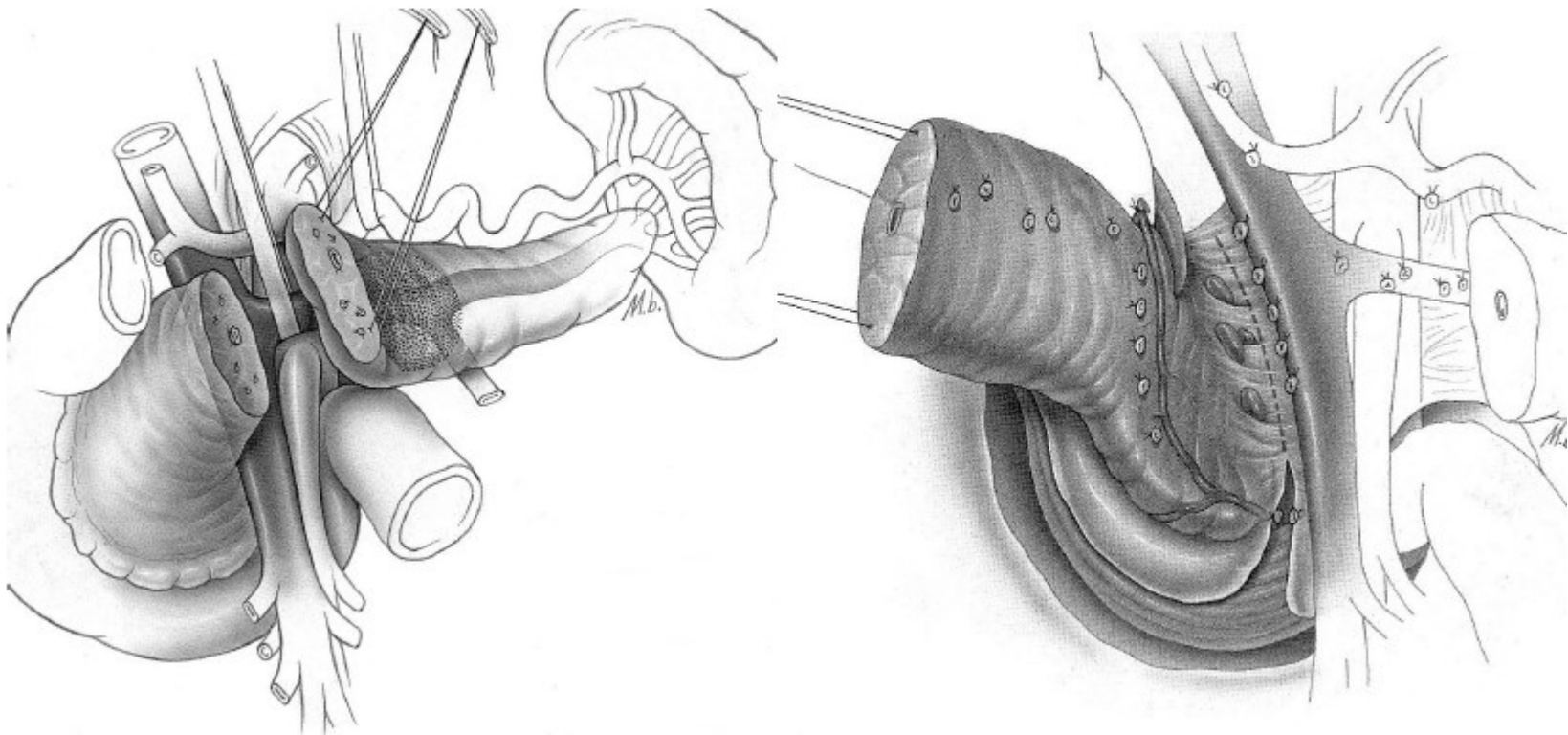
1. Pankreatoduodenektomie
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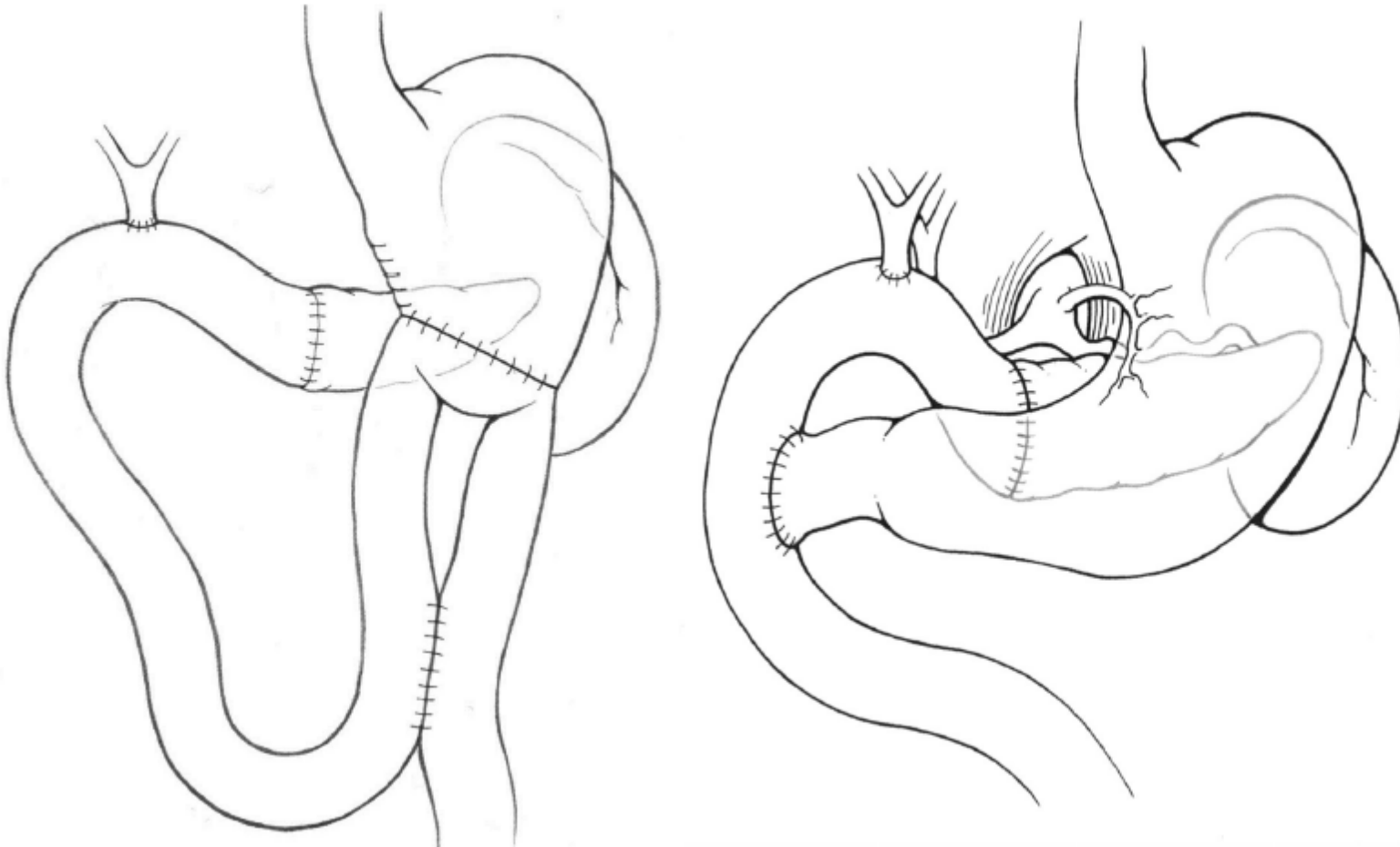
Morbidität	(1960) 60%	=>	(2000) 30% - 60%
Mortalität	(1960) 30%	=>	(2000) 3% - 5%
5a Überleben	5% - 20%		
Resektabilität	~ 10%		

Stojadinovic A et al; J Am Coll Surg 2003

Pancreatic head resection (Kausch-Whipple-Procedure)



Pancreatic head resection (Kausch-Whipple-Procedure)



Outline



- 1) Topography and function of the pancreas
- 2) History of pancreatic surgery
- 3) **Acute/chronic pancreatitis**
- 4) Pancreatic cancer
- 5) Pancreas transplantation

Acute Pancreatitis



Etiology:

1. Gallstones
2. Alcohol
3. Drugs
4. Trauma
5. Iatrogen

Acute Pancreatitis



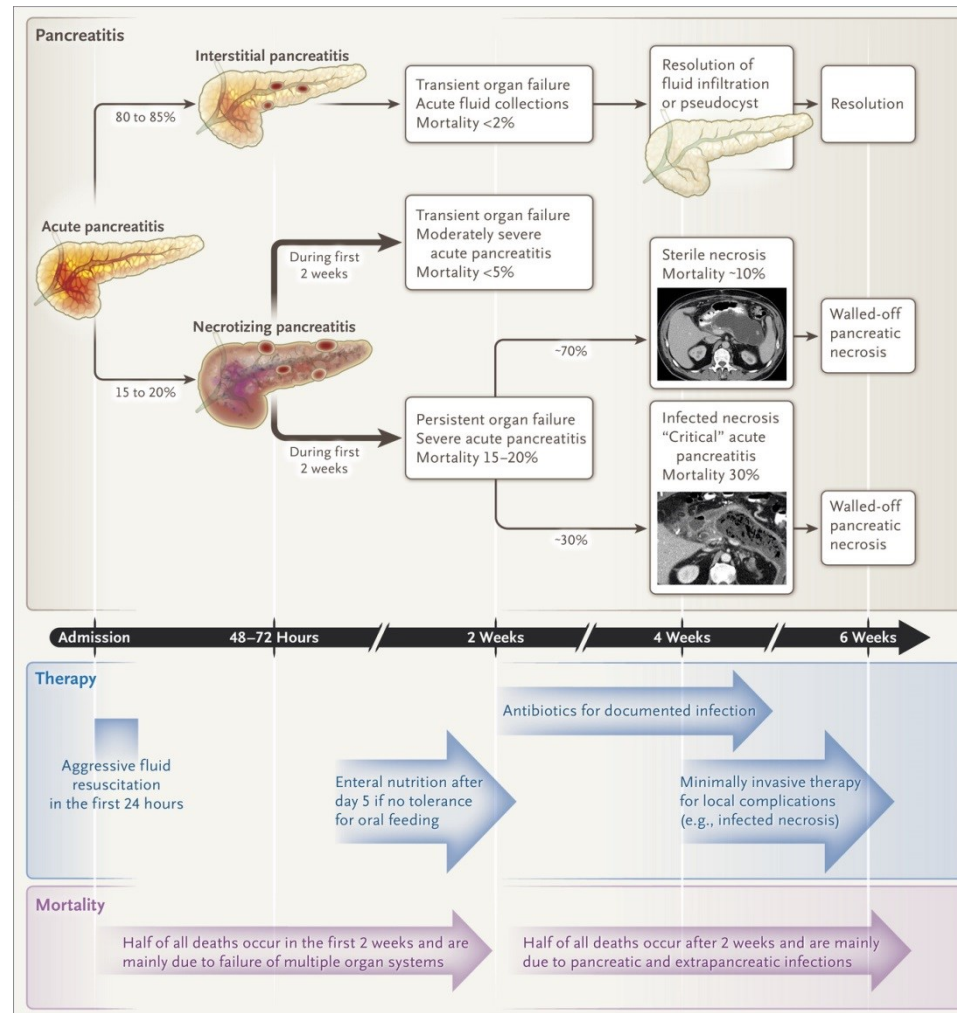
Etiology:

1. Gallstones
2. Alcohol
3. Drugs
4. Trauma
5. Iatrogenic

Classification:

1. Mild (Interstitial)
2. Severe (Necrotizing)

Time Course and Management of Acute Pancreatitis.



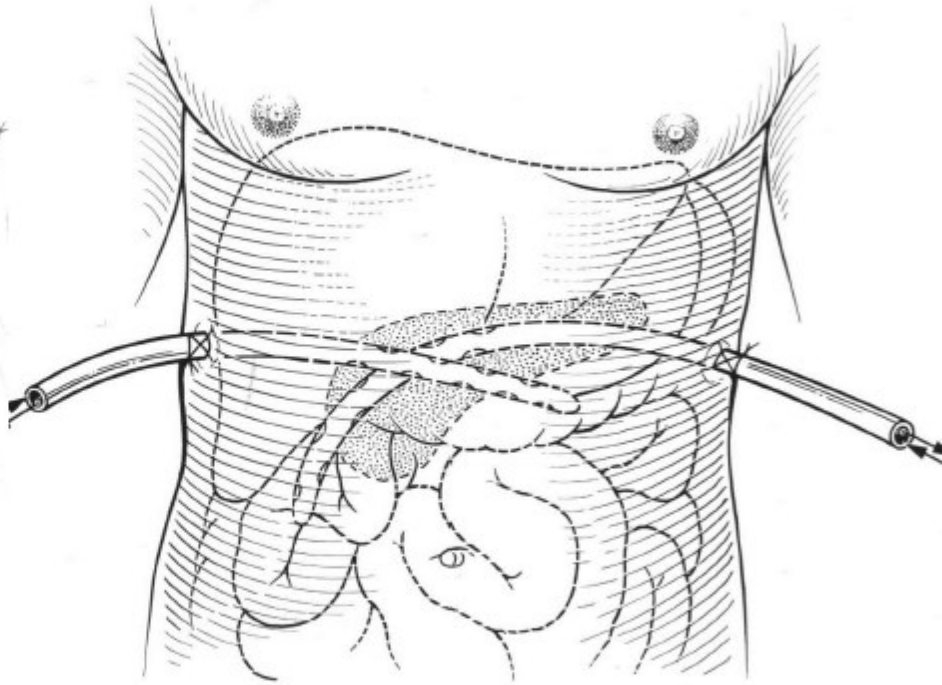
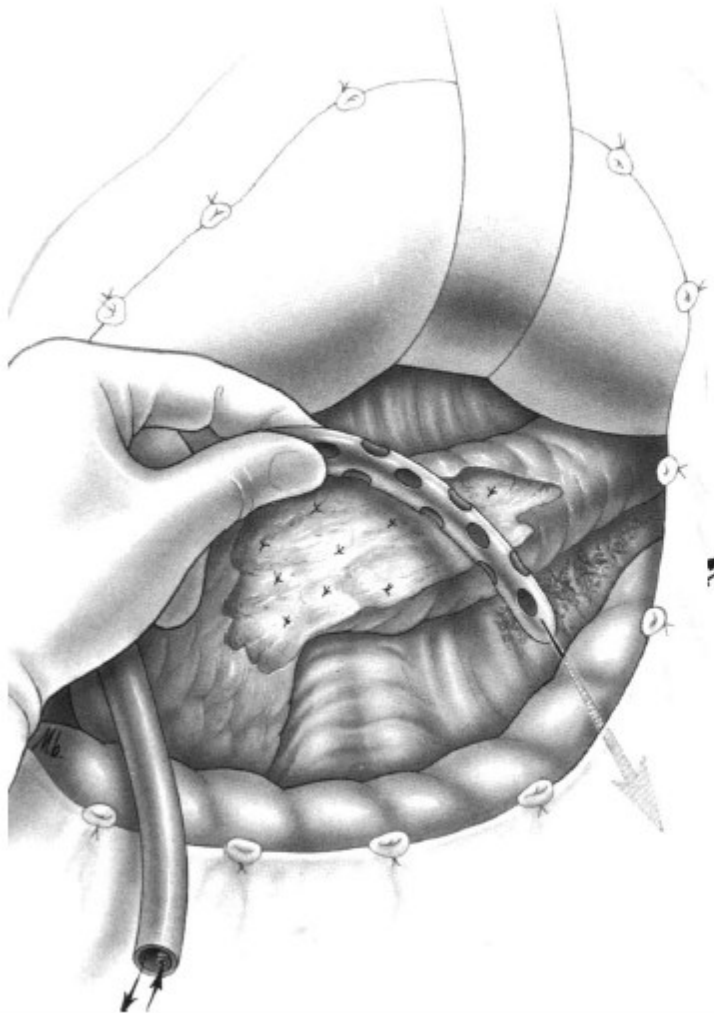
Forsmark CE et al. N Engl J Med 2016;375:1972-1981.

Acute Pancreatitis – Surgical interventions

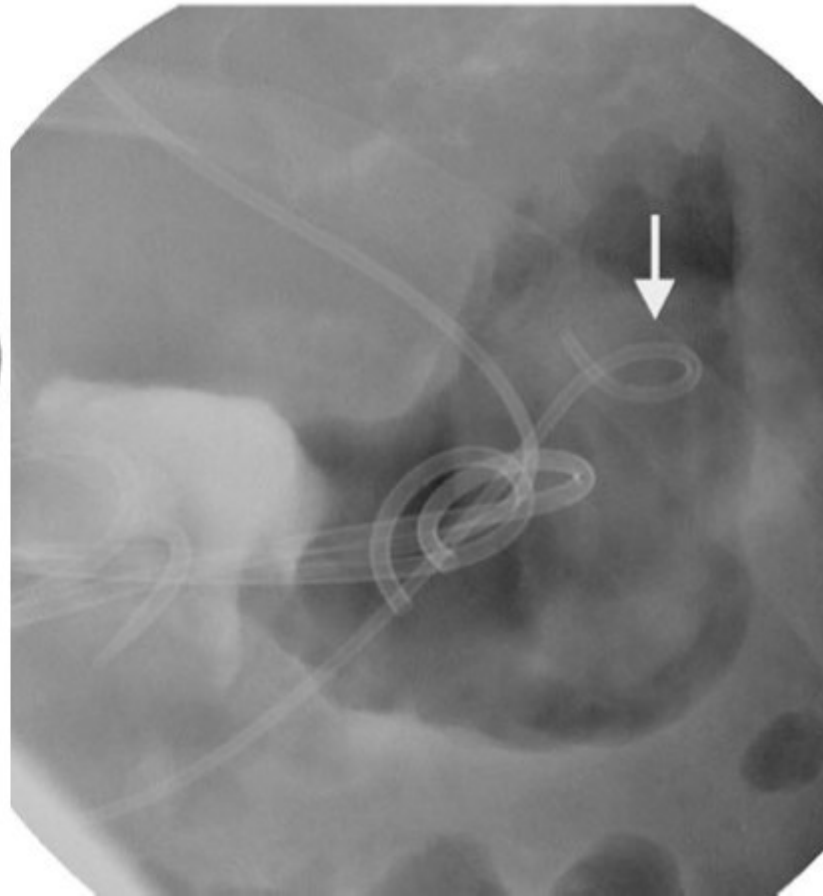
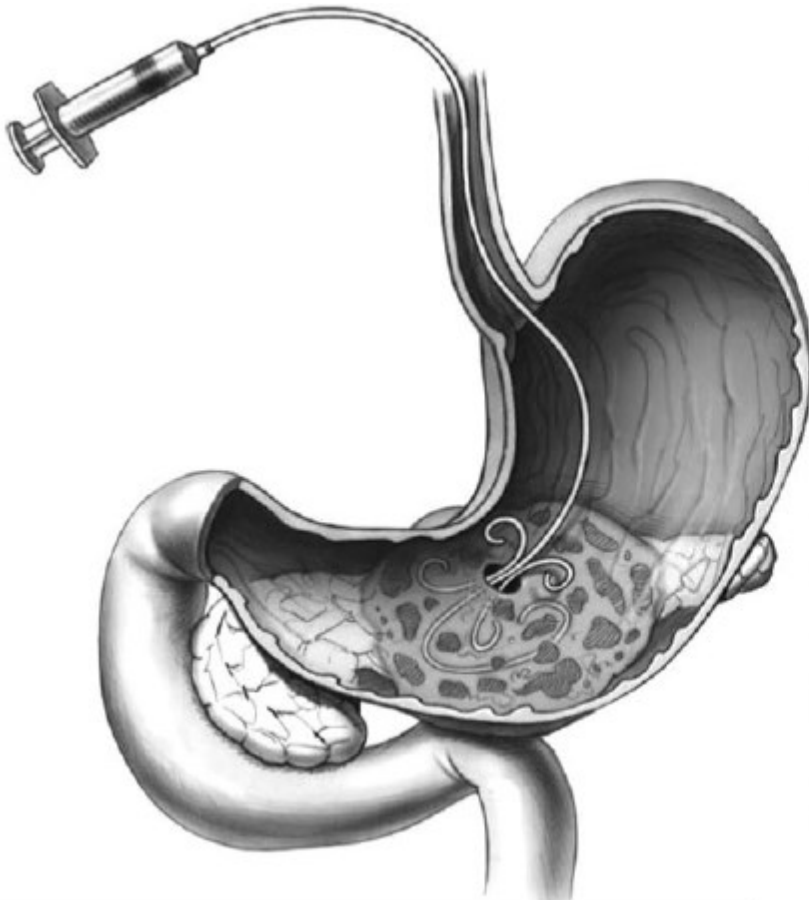


1. Gallstone pancreatitis: Cholecystectomy
2. Pancreatic duct disruption: Image-guided percutaneous placement of a drainage tube into the fluid collection; stent or tube placement via ERCP; in refractory cases, distal pancreatectomy or a Whipple procedure
3. Pseudocysts: None necessary in most cases; for large or symptomatic pseudocysts, percutaneous aspiration, endoscopic transpapillary or transmural techniques, or surgical management
4. Infected pancreatic necrosis: Image-guided aspiration; necrosectomy
5. Pancreatic abscess: Percutaneous catheter drainage and antibiotics; if no response, surgical debridement and drainage

Acute Pancreatitis – Surgical interventions



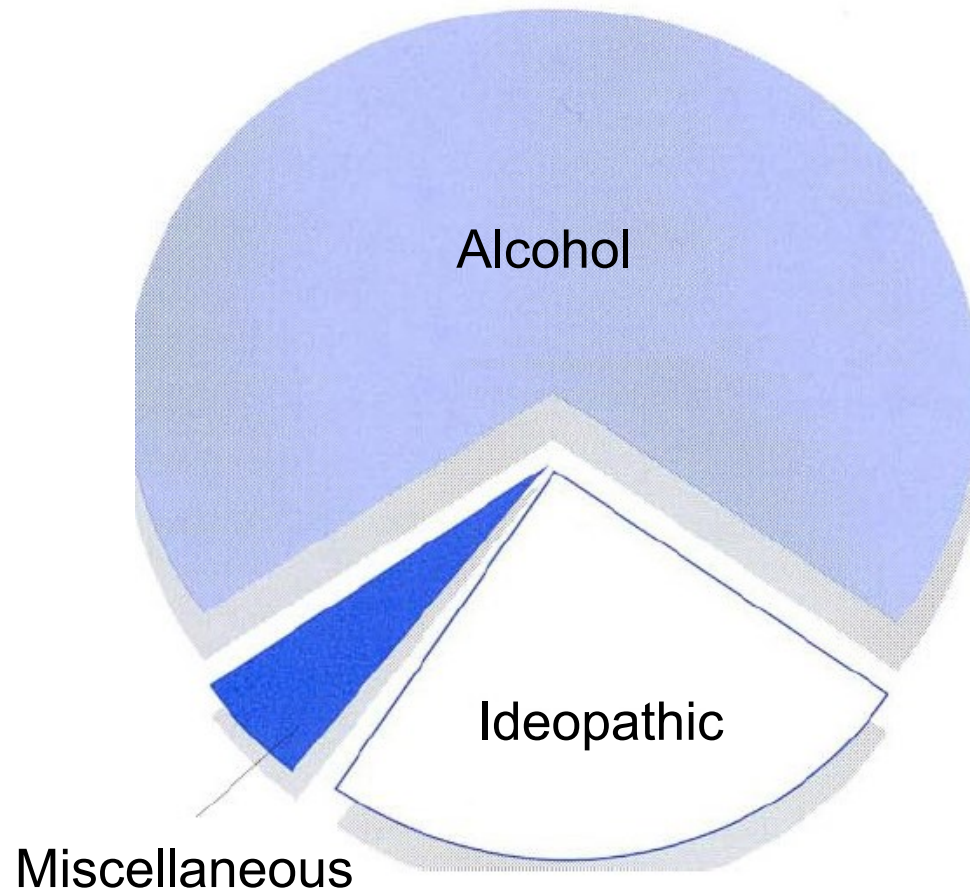
Acute Pancreatitis – Endoscopic interventions



Chronic pancreatitis – Etiology

Etiology:

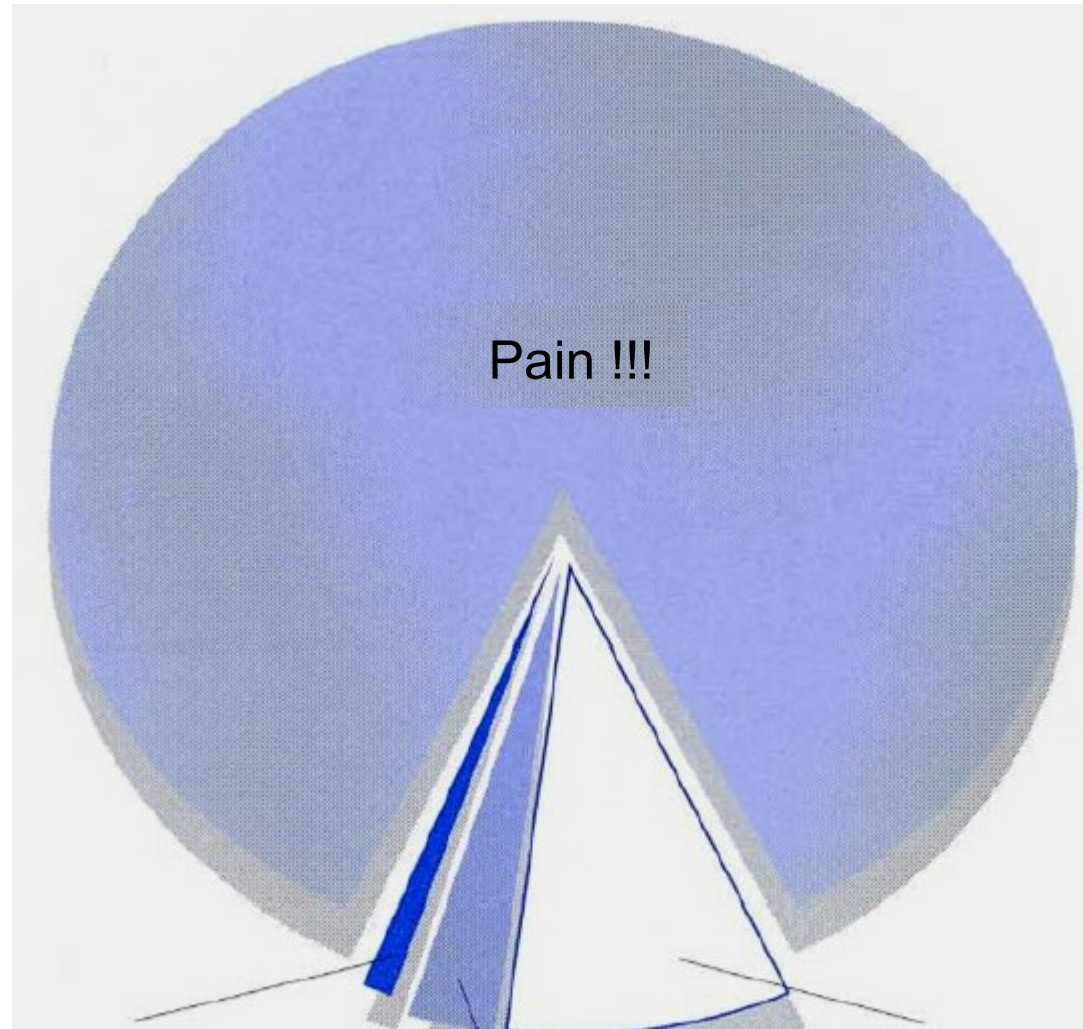
1. Metabolic
2. Mechanical
3. Hereditary
4. Ideopathic
5. Immunologic



Chronic pancreatitis – Symptoms

Symptoms:

1. Pain
2. DM
3. Steatorrhea
4. Icterus

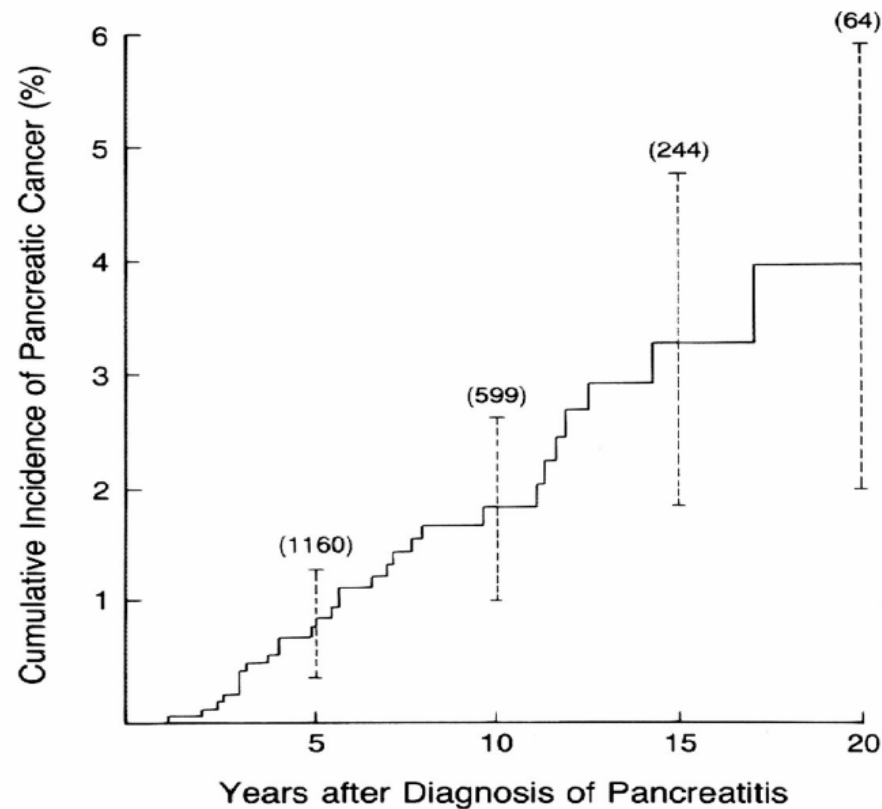


Icterus

Steatorrhea

Diabetes
mellitus

Chronic pancreatitis – Risk of pancreatic cancer



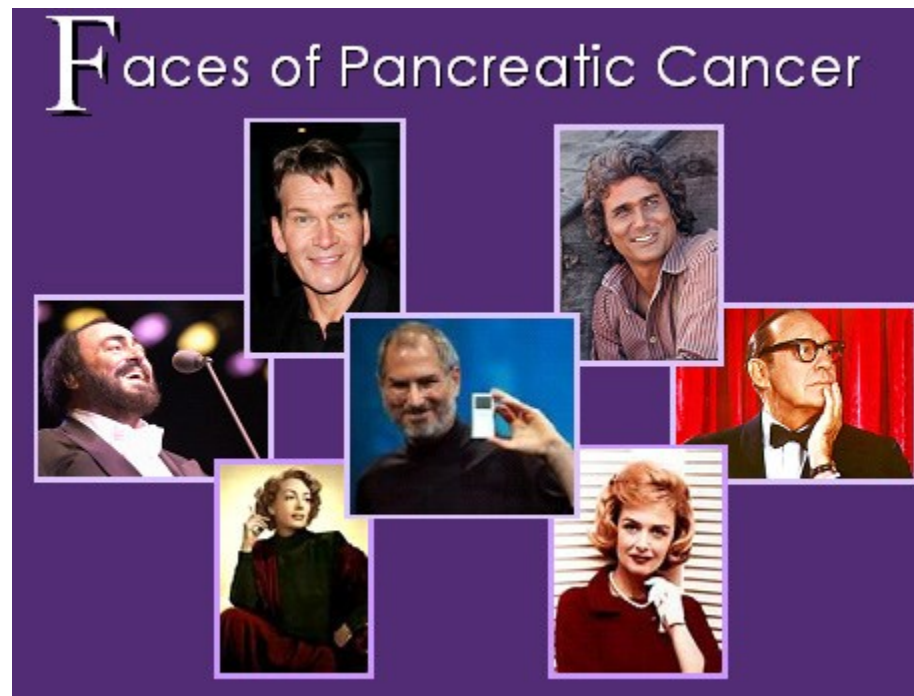
Lowenfels et al. N Engl J Med 1993

Outline



- 1) Topography and function of the pancreas
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A few faces you probably recognize....



The #4 cancer killer of men and women in the US

Pancreatic cancer – Risk factors



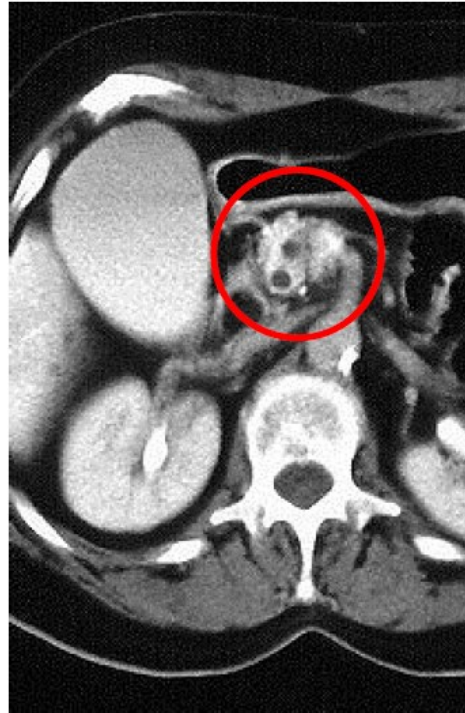
1. Chronic pancreatitis
2. Hereditary cancer syndroms
3. Hereditary pancreatic cancer
4. Hippel-Lindau-Syndrom

Pancreatic cancer – Symptoms



1. Icterus
2. Back pain
3. Weight loss
4. Loss of appetite
5. Performance ↓↓

Pancreatic cancer – Radiology findings



Pancreatic cancer – Stage adapted therapy



Resektabel

Grenzwertig-borderline resektabel

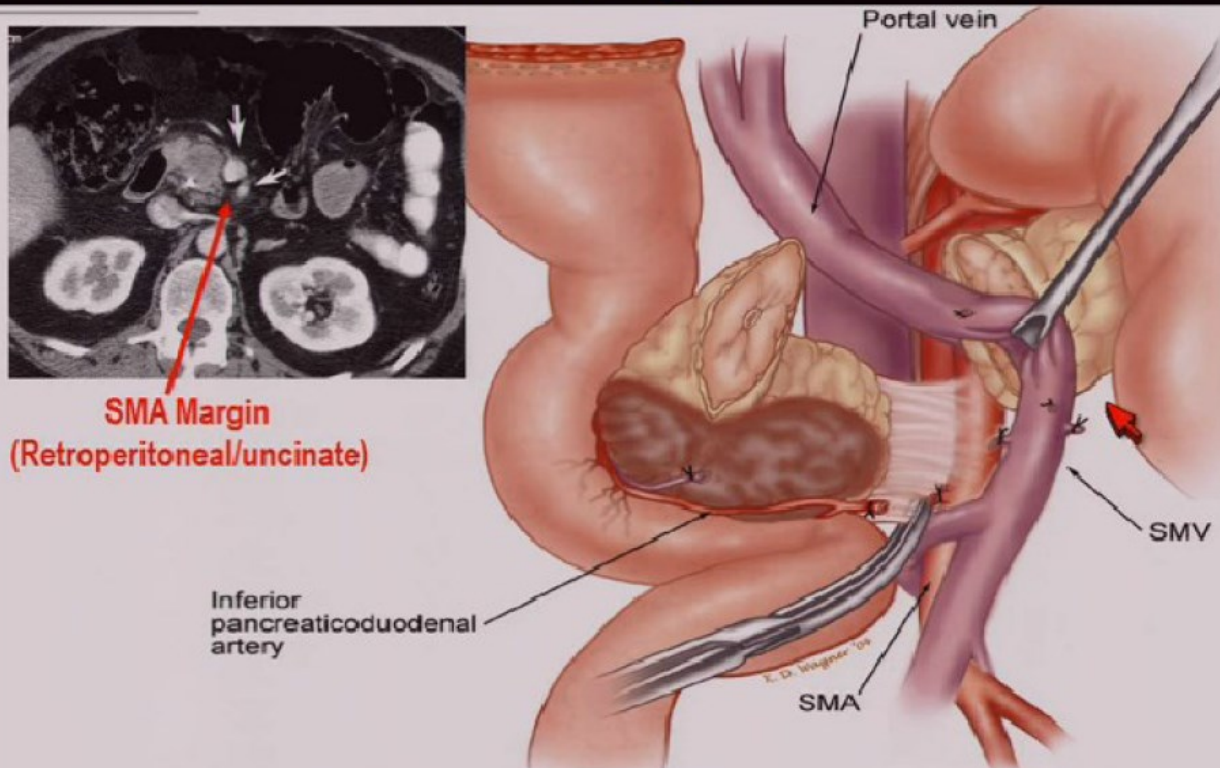
Nicht resektabel

T = Tumor; SMA = A. mesenterica superior; SMV = V. mesenterica superior

Katz MH: Department of Surgical Oncology, University of Texas. MD Anderson Cancer Center, Houston. (ASCO-GI 2014)

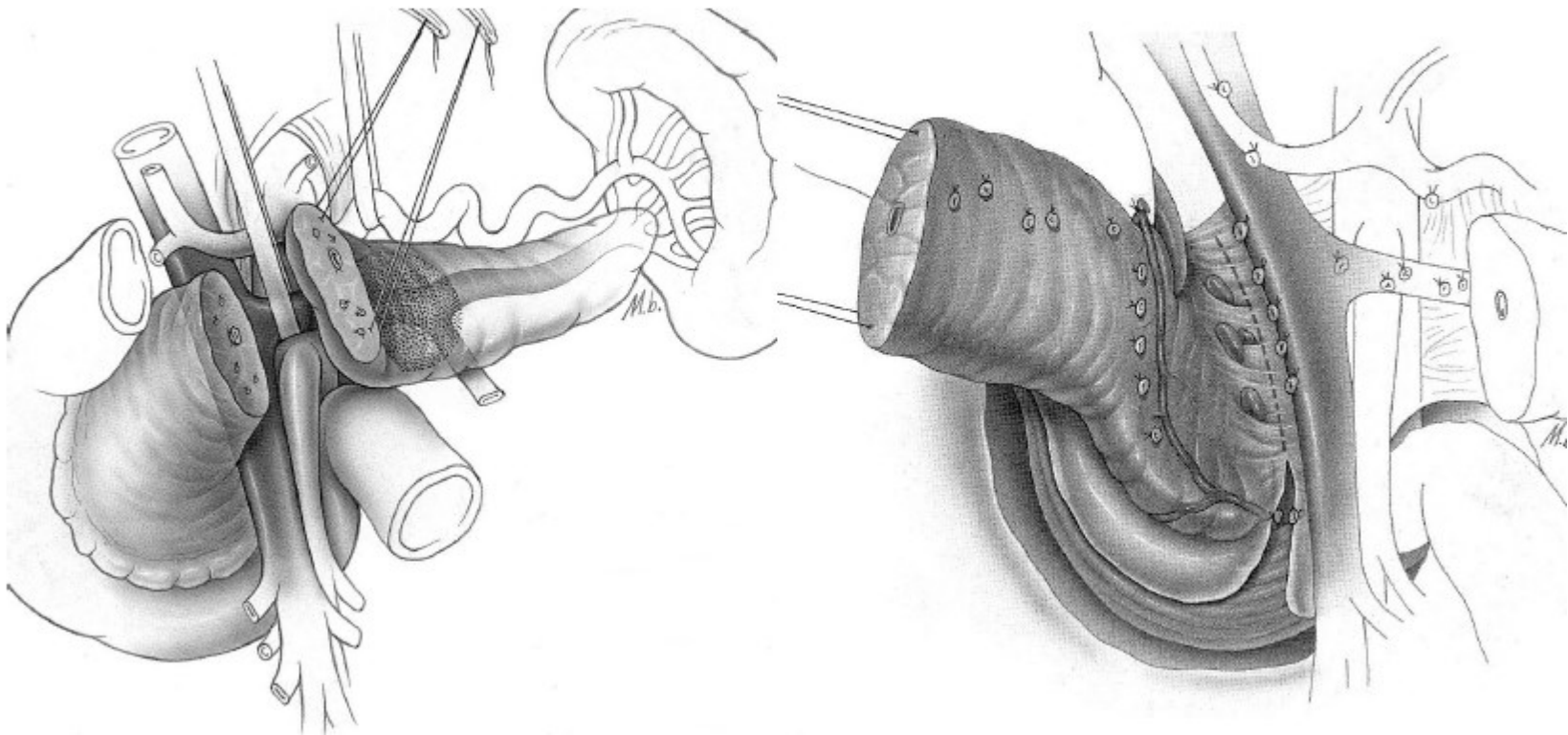
Pancreatic cancer – Stage adapted therapy

Importance of Pre-op Imaging: Focus on SMA Margin



Courtesy Doug Evans Medical College of Wisconsin, Dept of Surgery

Pancreatic head resection (Kausch-Whipple-Procedure)



Pancreatic head resection (Kausch-Whipple-Procedure)



Outline



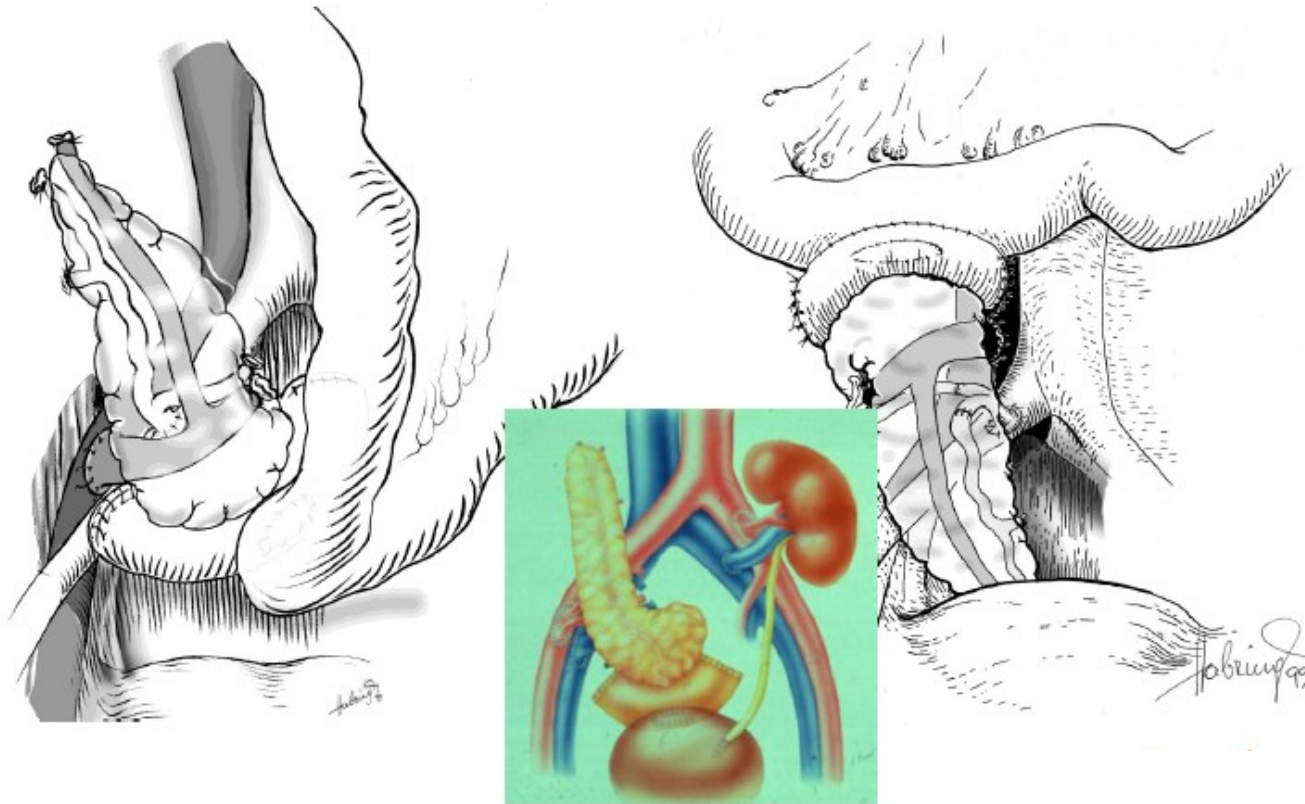
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Pancreas Tx – Indications

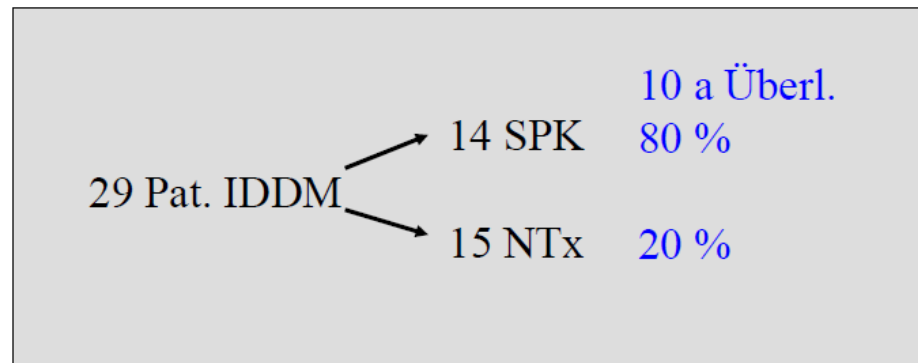


1. Diabetes mellitus (Typ 1)
2. Avoidance of DM-associated long-term complications
3. Improving quality of life

Pancreas Tx – Technique



Pancreas Tx – Clinical results



G. Tyden et al., Transplantation 1999; 67(5): 645

Pancreas Tx – a face you should know...



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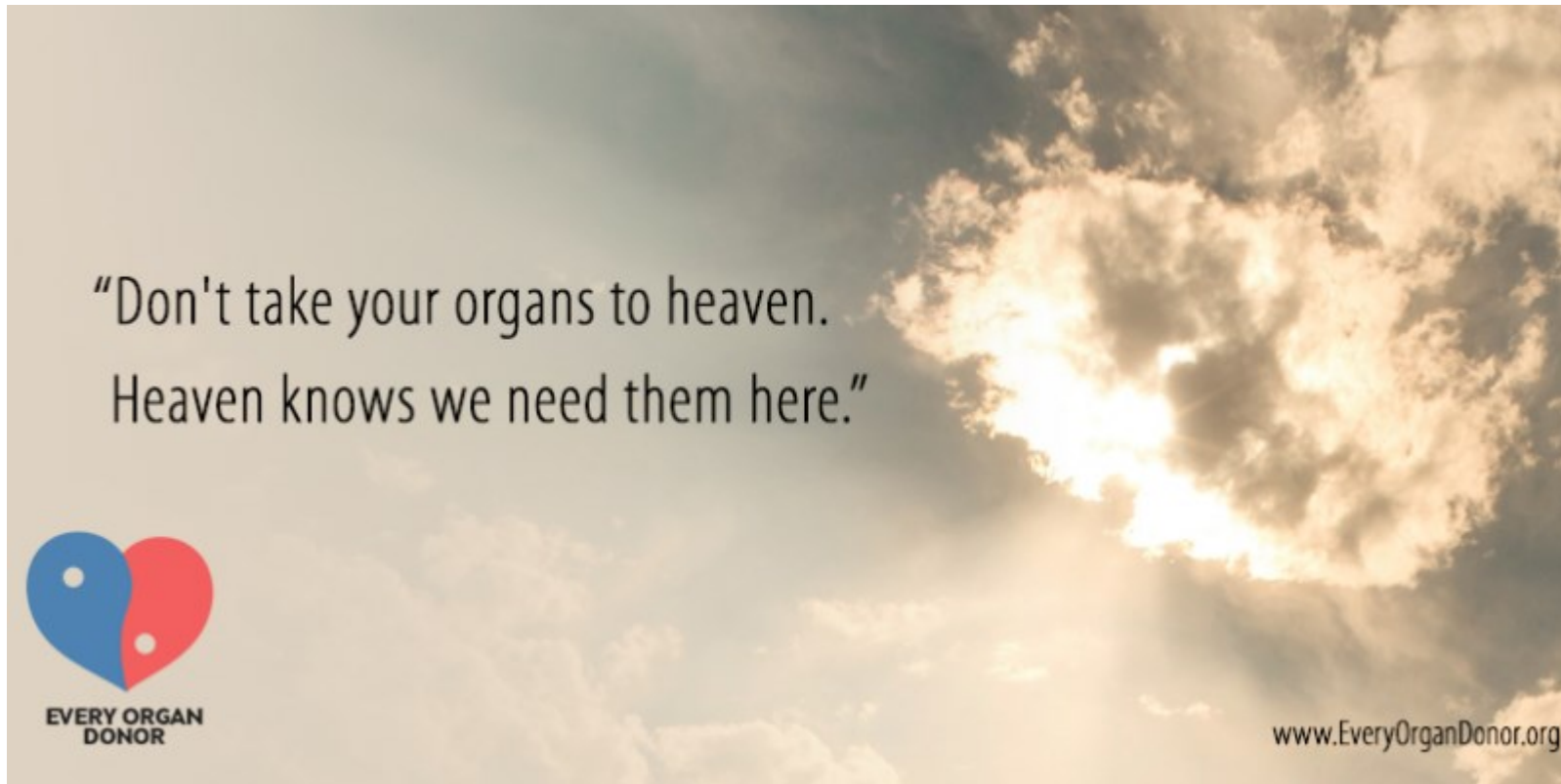


Experience With 500 Simultaneous Pancreas–Kidney Transplants

Hans W. Sollinger, MD, PhD, Jon S. Odorico, MD, Stuart J. Knechtle, MD, Anthony M. D'Alessandro, MD, Munci Kalayoglu, MD, and John D. Pirsch, MD

From the Division of Organ Transplantation, Department of Surgery, University of Wisconsin School of Medicine, Madison, Wisconsin

Organ donation



Universitätsklinikum Tübingen

**Kompetenz
mit Herz**

www.uniklinikum-tuebingen.de



Thank you
for your attention!