Video Assisted Pancreatic Necrosectomy

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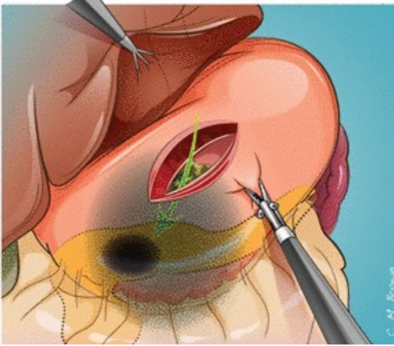
Infected Walled Off Necrosis

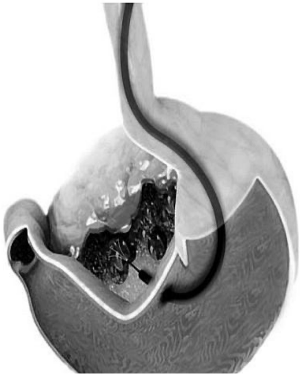
Transgastrically Accessible

Transgastric drainage/necrosectomy

Surgical



Endoscopic

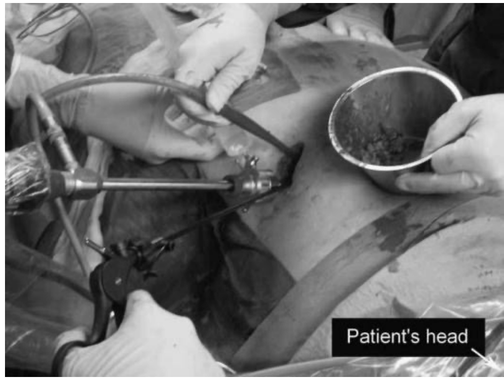


No Transgastric Access

Retroperitoneal access?

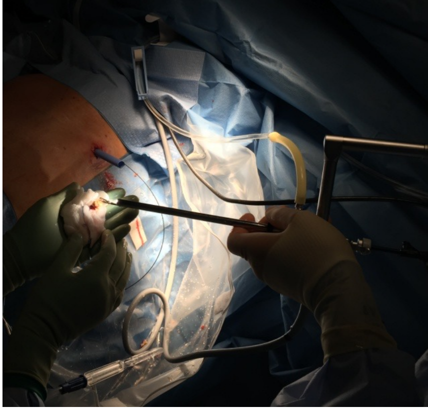
Yes

RP drain/
Video assisted retroperitoneal debridement



No / poor / intercostal

Drain/
Sinus tract endoscopy



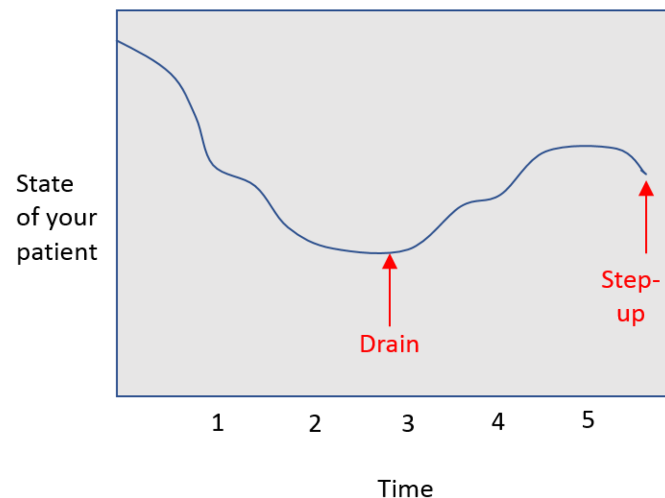
Step up approach

1. Start with a minimally invasive drainage procedure (percutaneous or endoscopic)
2. Step-up if there is inadequate response (2/3 OF THE TIME!!)

Failure of step 2 now seems more common than failure of step one

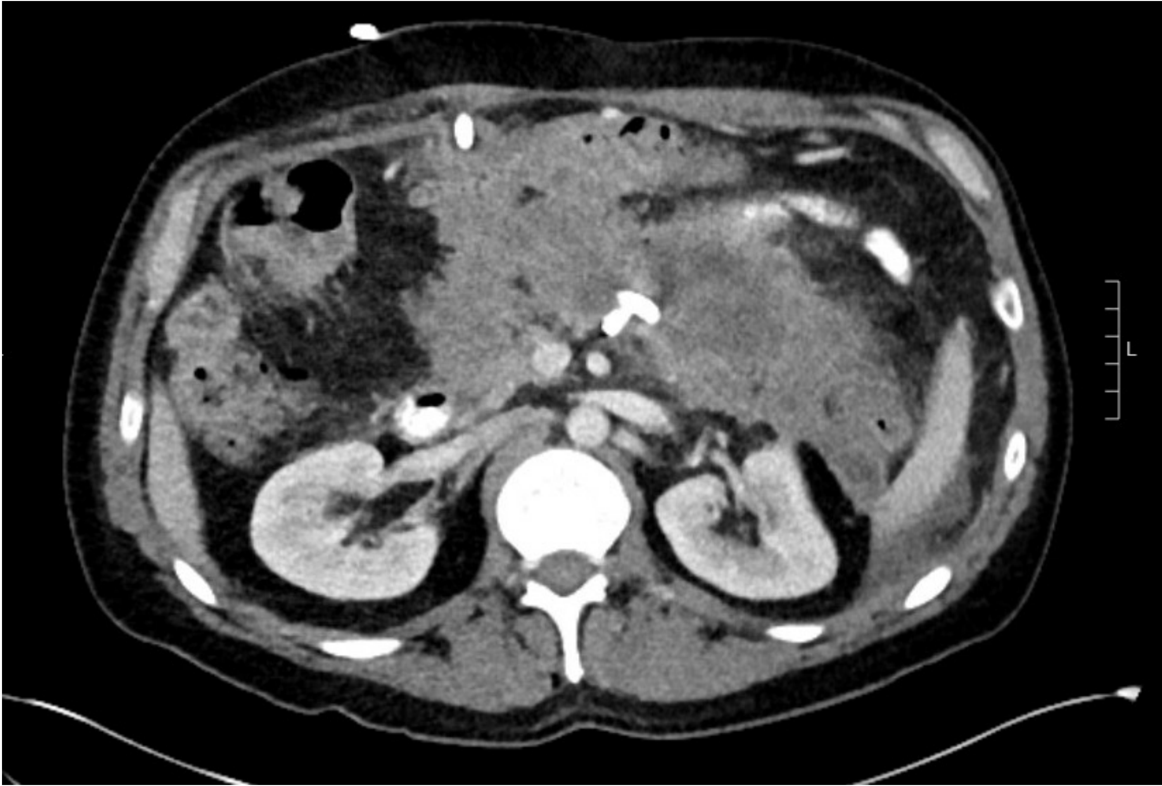
Timing

- When to intervene and step up are still often hard decisions
- Guideline: 28 days from onset of pancreatitis for debridement
- If patients are still improving after drainage, wait

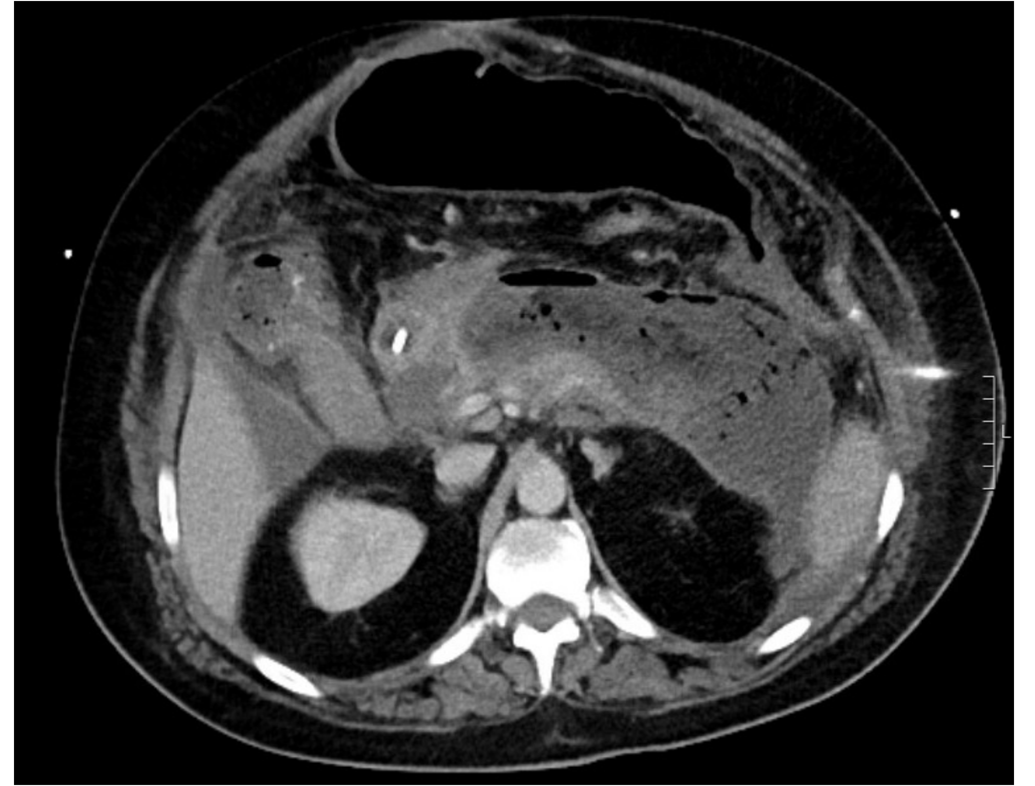


- Combination of time and radiographic appearance

Timing

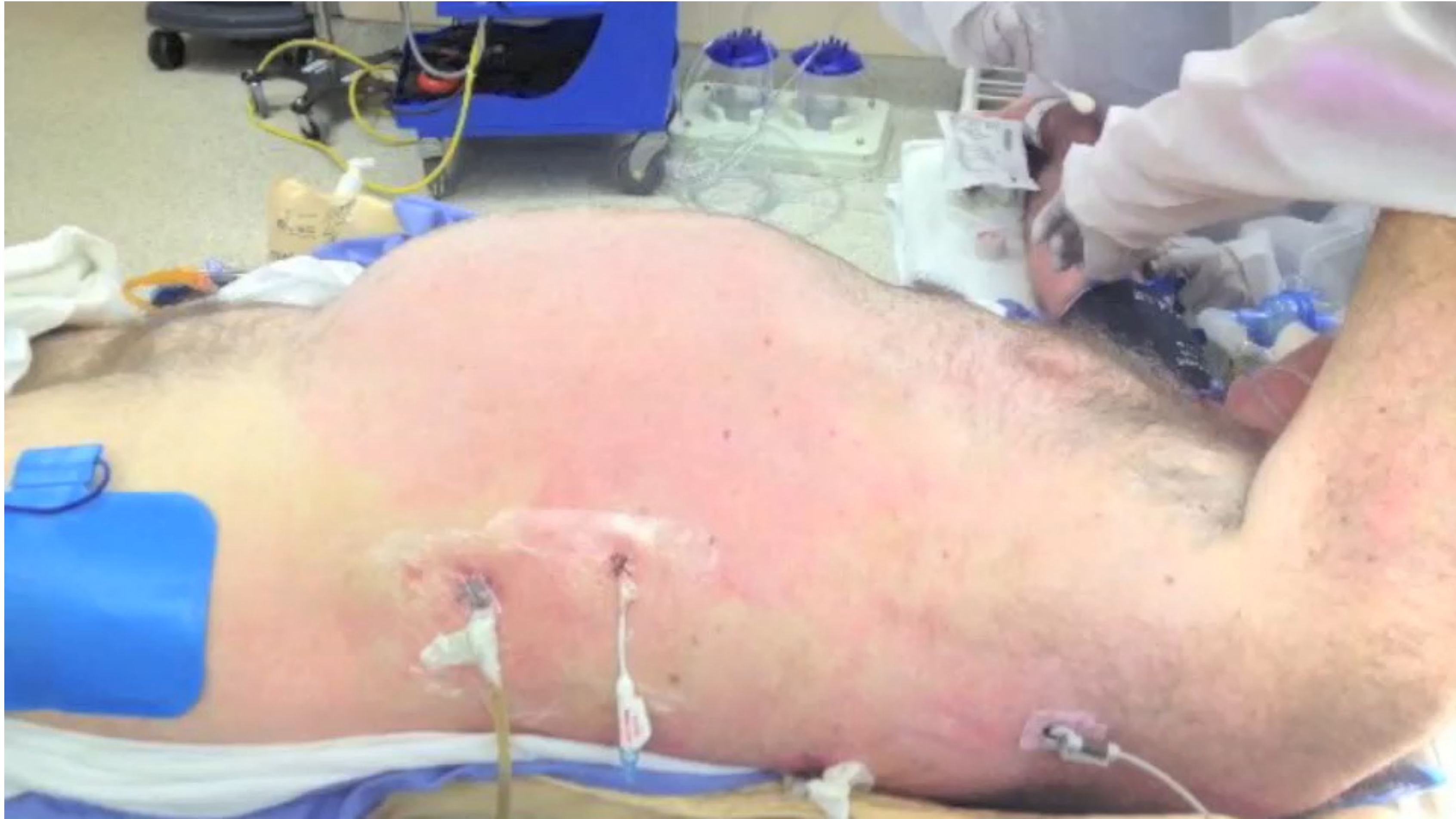


46 days, still not there



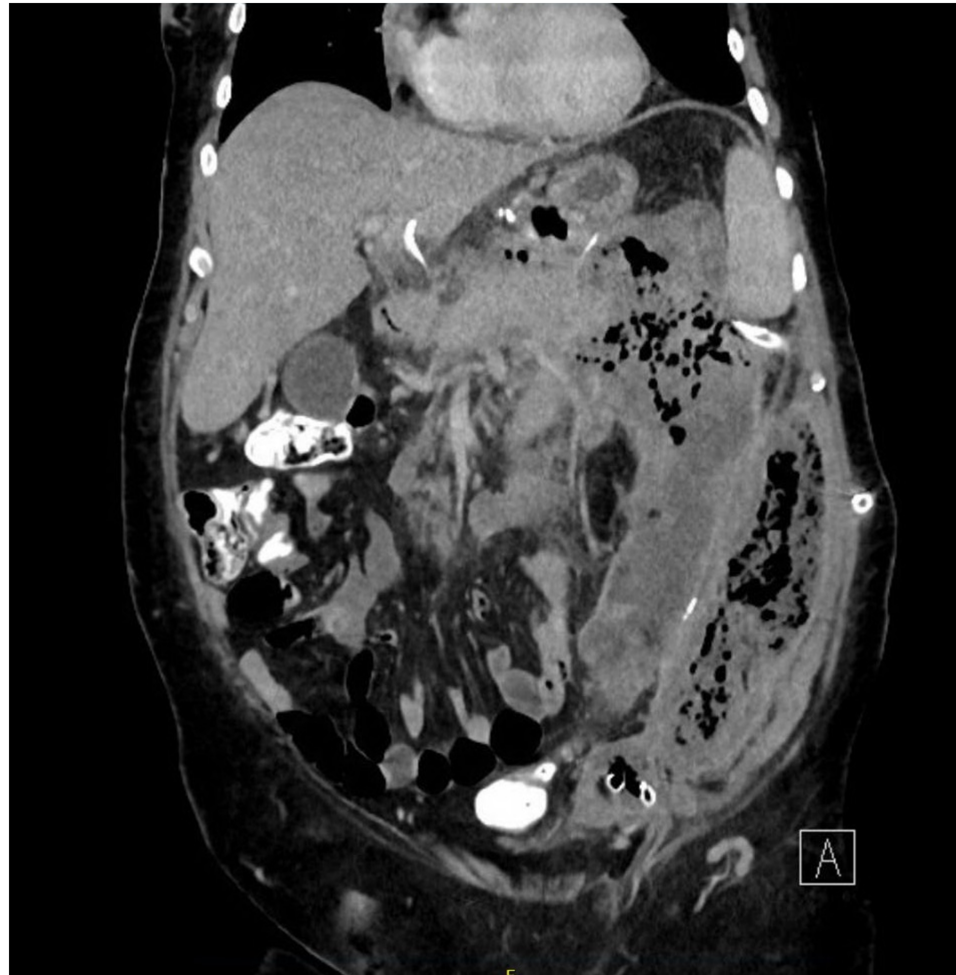
25 days, ready to go

VARD Video



Ideal VARD

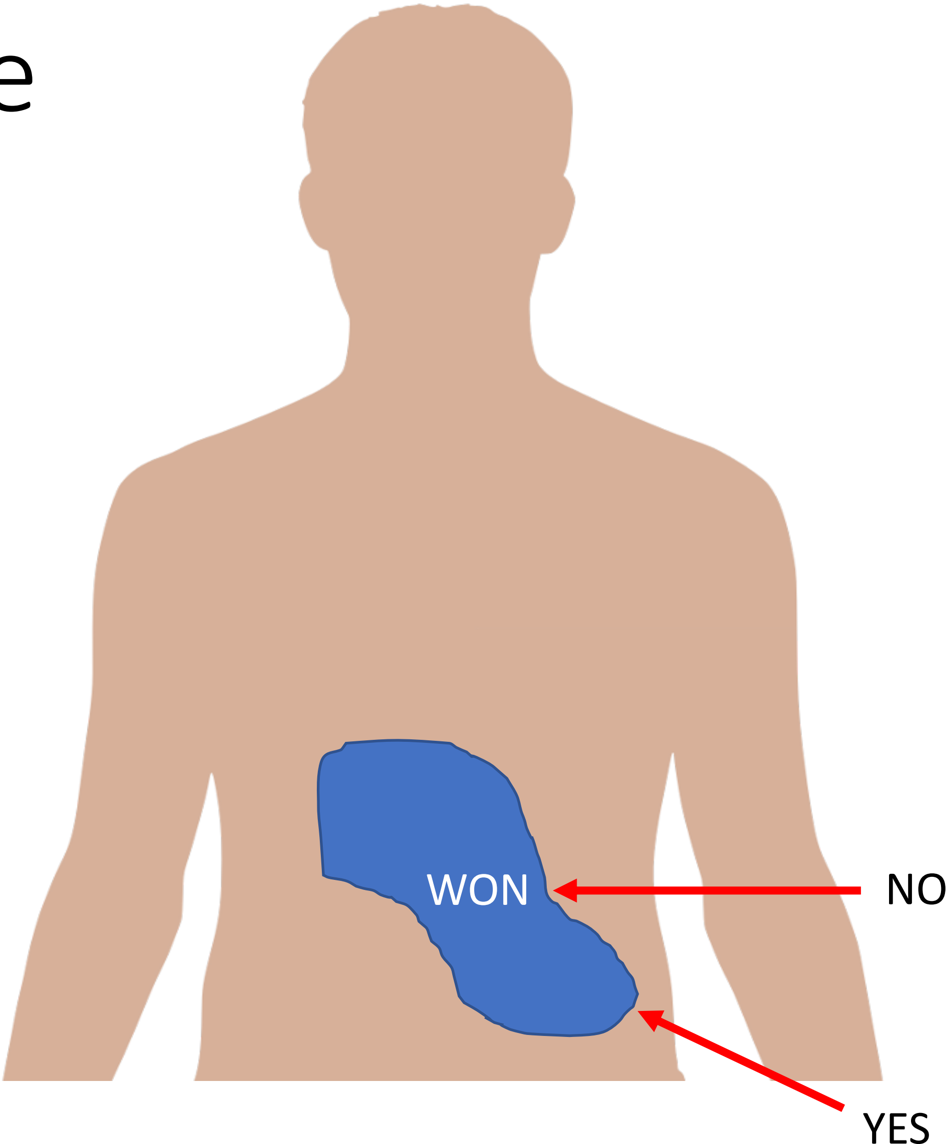
Large volume of necrosis tracking laterally with a straightforward retroperitoneal access path



Drain Placement

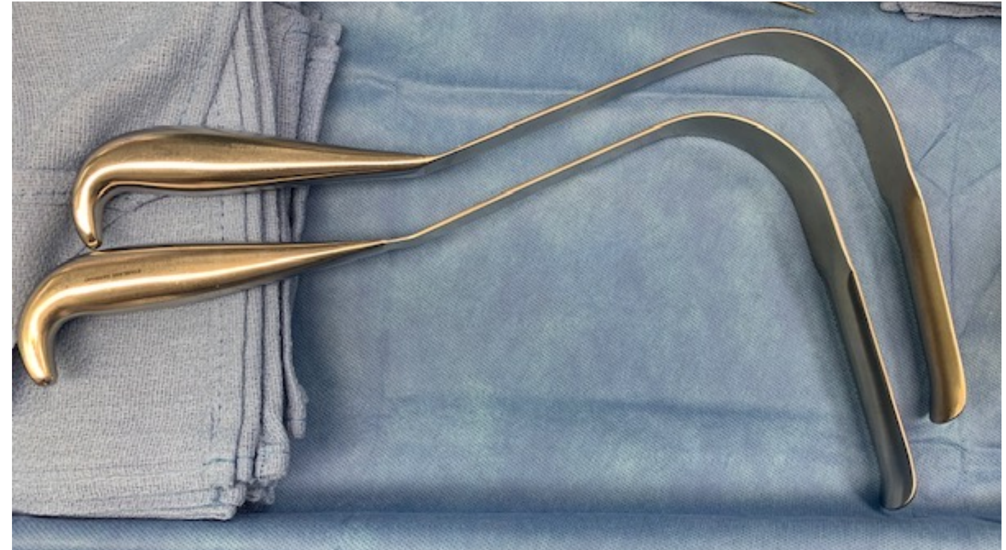
- This is your lifeline.
- You have to be 100% happy with trajectory
  - Get in at the end of the collection
  - Intercostal routes
  - Avoid tight windows

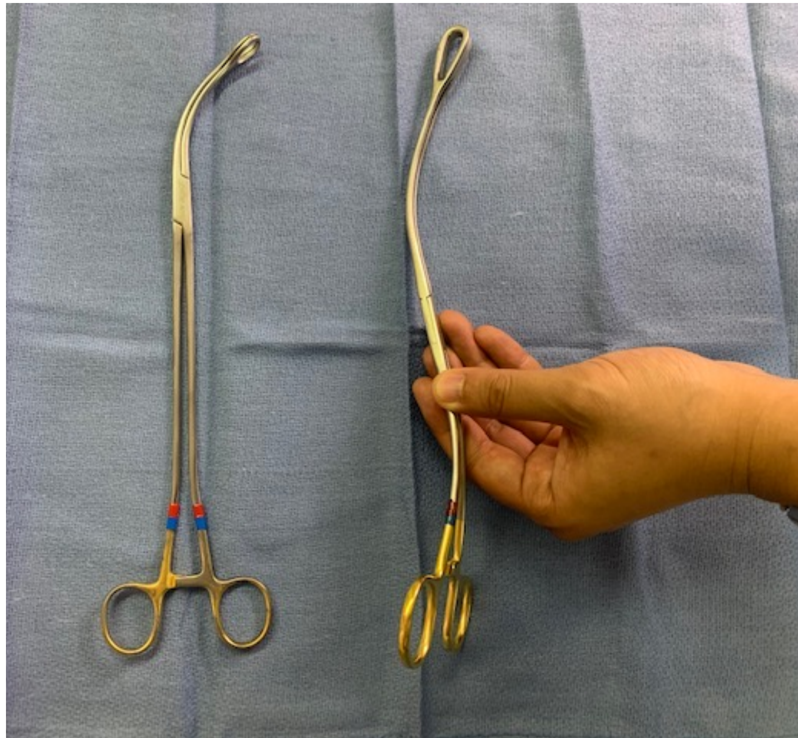
“Get in at the end”

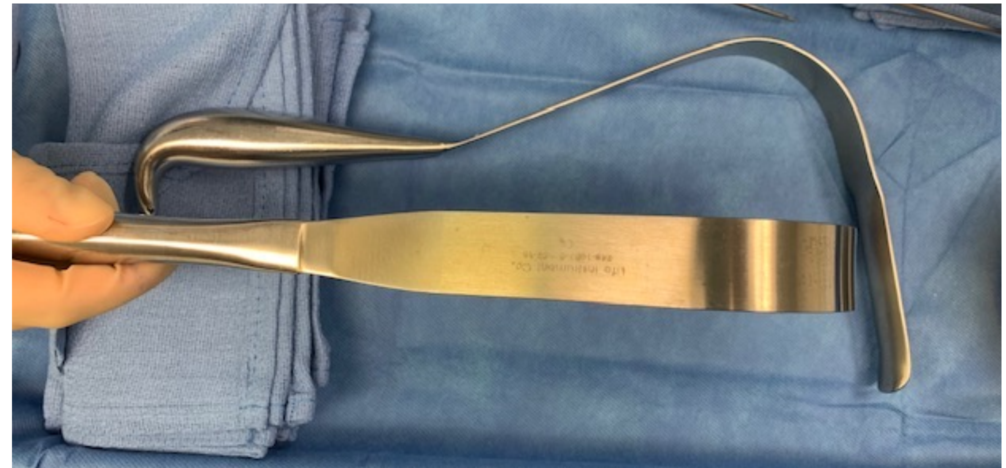


Gear

- 10mm 0 degree laparoscope
- Standard and curved ring forceps and laparoscopic bowel graspers
- Yankauer and laparoscopic suction







Execution

- Positioning – If any doubt use partial lateral decubitus
- Tissue Handling – Do not have to remove every scrap
- Build your mental map – Are there landmarks (e.g. other drains)?
- Closure
  - Interrupted multiple layers
  - Try to bring drains out counterincisions

Bleeding

- An ounce of prevention is worth a pound of cure
  - Choice of drain route
  - Gentle tissue handling
- Escalating response
  - Direct control
  - Packing (VARD advantage)
  - Angioembolization
  - Open conversion

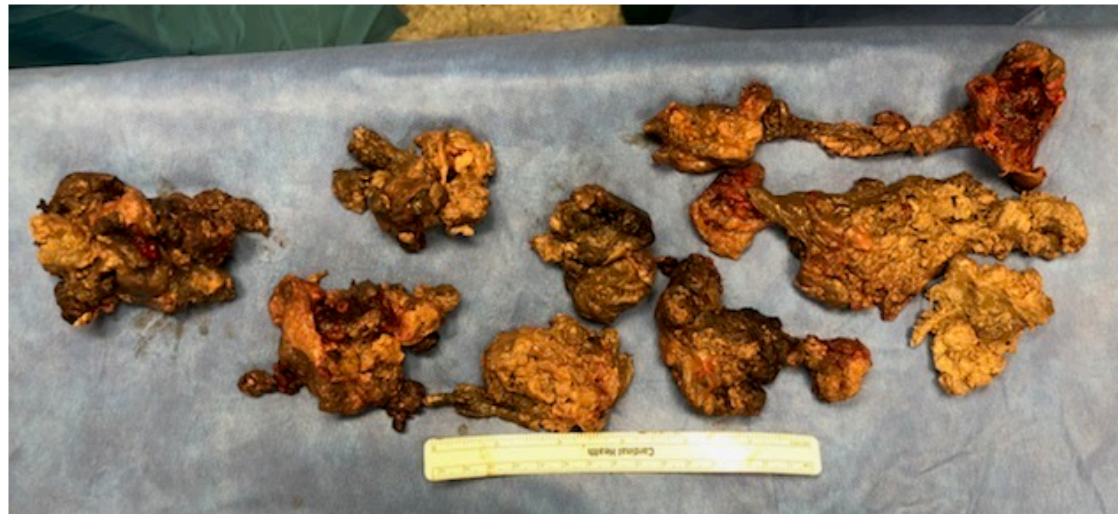
VARD – Pros and Cons

Pros

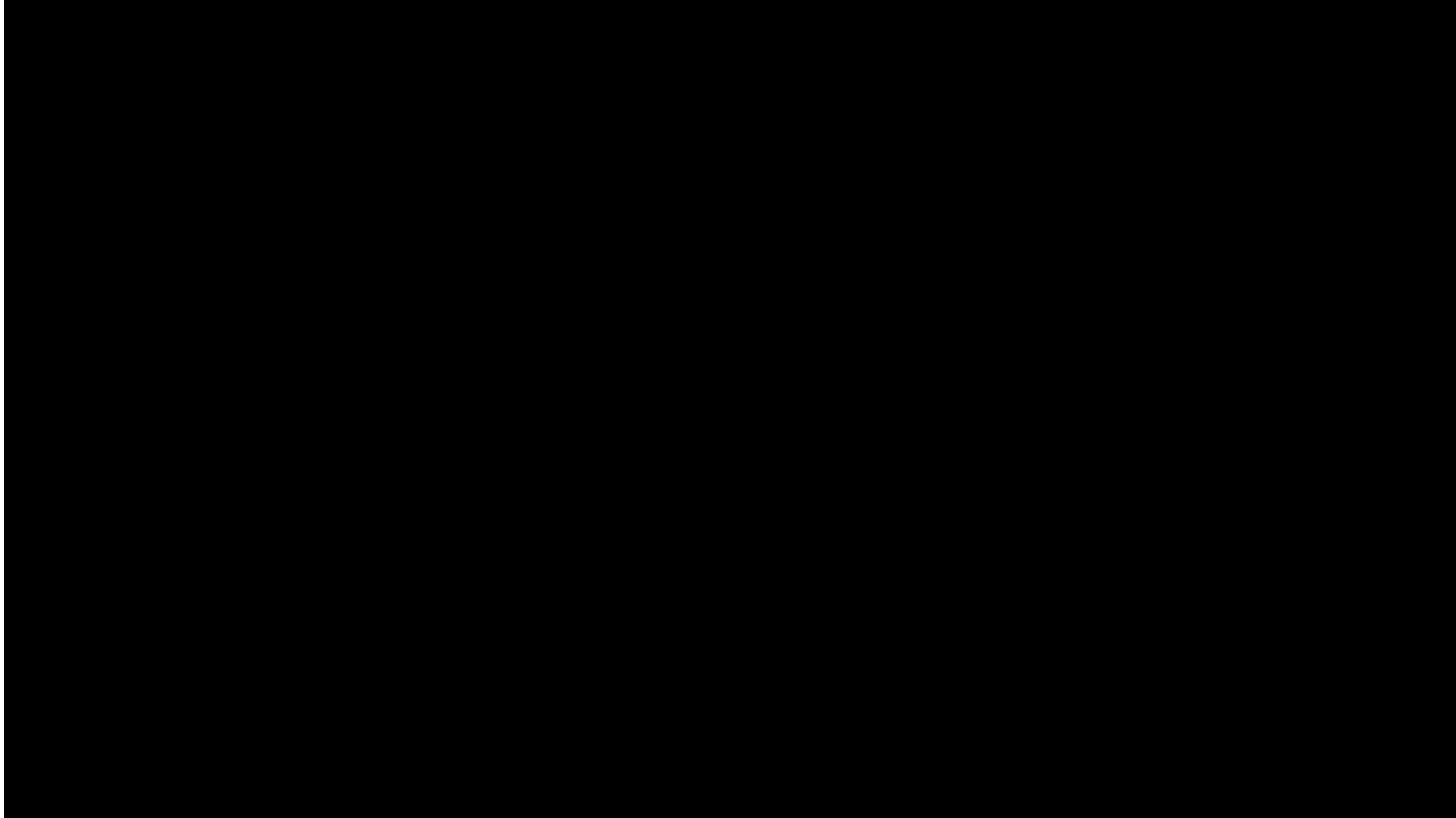
- Great starter technique
  - Simple equipment
  - “Open necrosectomy” via flank
  - Bleeding least intimidating
- Rapid debridement

Cons

- Requires retroperitoneal access
- Wound complications
- External fistulae

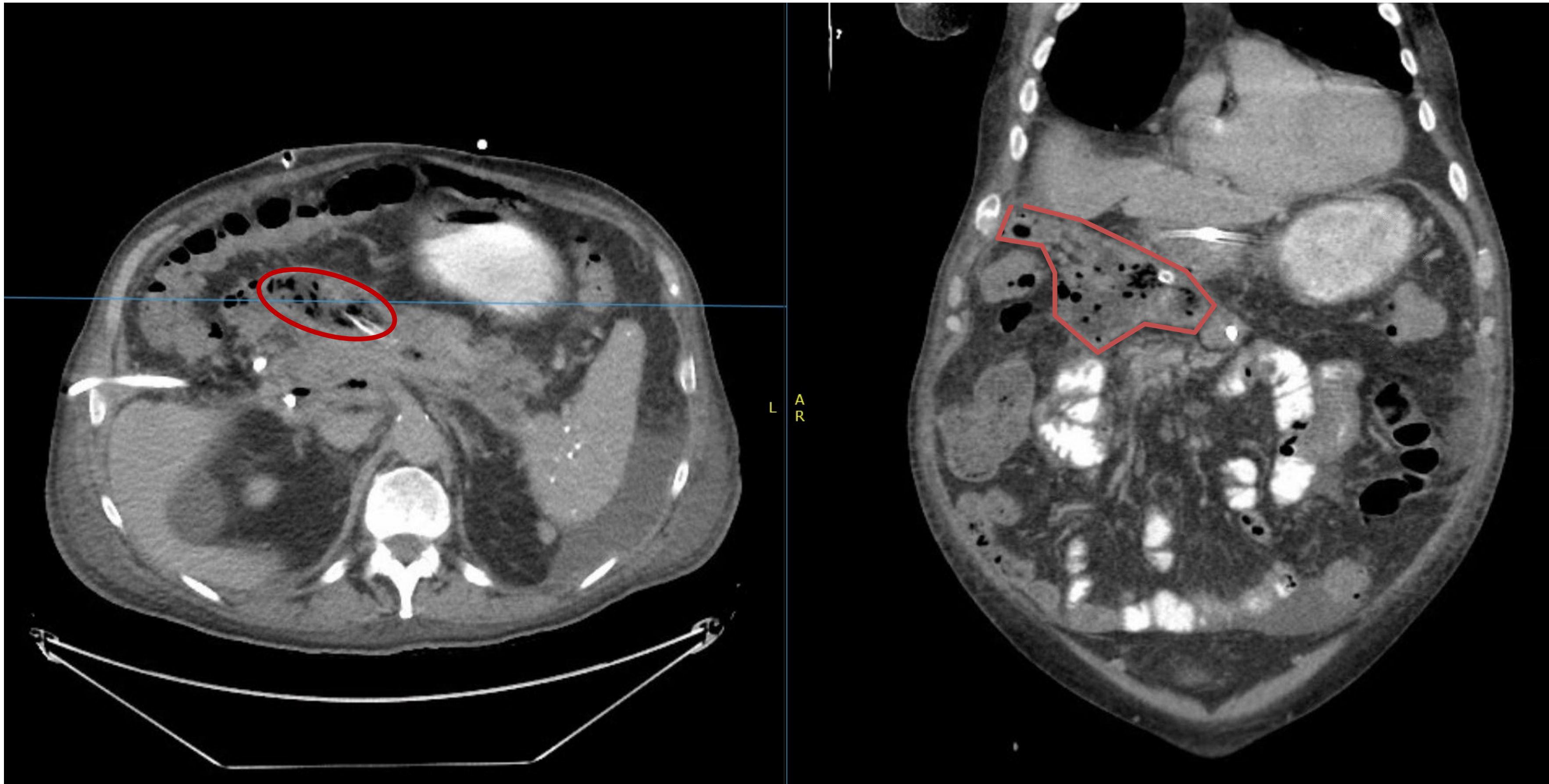


Sinus tract endoscopic necrosectomy



Ideal Sinus Tract

Small collection around drain OR walled off necrosis with difficult or no RP or transgastric window



Sinus tract endoscopy

Pros

- Can reach anywhere – does not require retroperitoneal path
- Minimal wound complications

Cons

- Large collections often require reintervention
- External fistulae
- Any bleeding difficult to deal with

Summary

- All techniques used as part of a step-up approach
- Delay intervention until necrosis walled off/demarcated
- Tailor interventional approach to anatomy and physiology of the patient

THERE IS NO “BEST TECHNIQUE”

There is a best technique for each patient