



HOW I DO ALTEMEIER PROCEDURE

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MSc

Colorectal unit

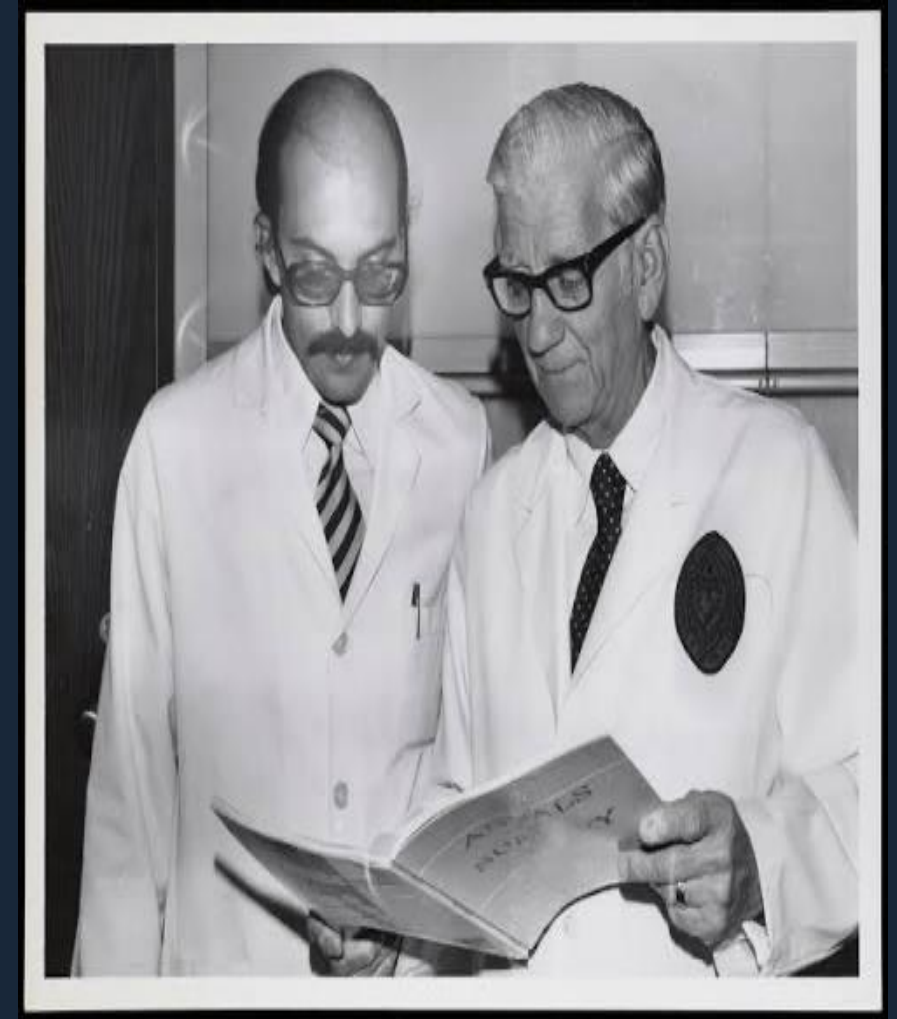
Faculty of medicine

Cairo University

Why Altemeier procedure?

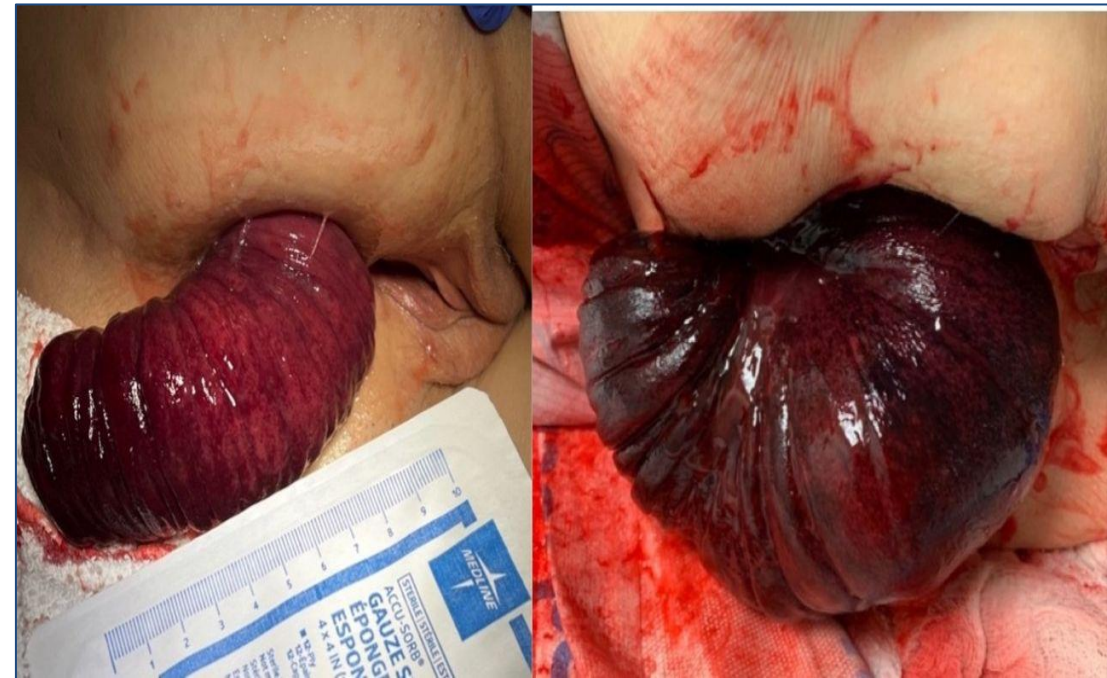
Also Known as transperineal recto-sigmoidectomy

First popularized by Dr. William Altemeier at the University of Cincinnati in the 1970s.



Who can get Altemeier operation?

- Old age with severe comorbidities (high surgical risk for abdominal operations).
- Incarcerated or strangulated prolapse (emergency setting).
- Recurrent prolapse after prior abdominal repair.



Who is not candidate for Altemeier ?

- **Absolute:**

- Unresectable cancer rectum or sigmoid colon.

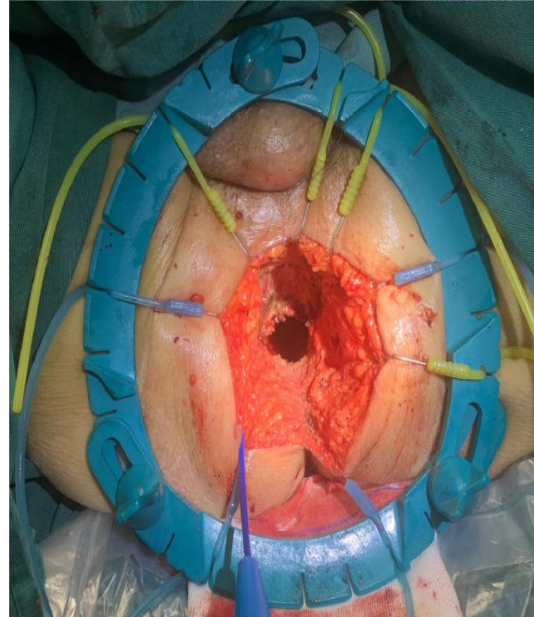
- **Relative:**

- Severe damage to the anal sphincter that cannot be repaired
- Active inflammatory bowel disease (impaired healing).

What are the preoperative preparation?

- **Bowel Preparation** :Full mechanical bowel preparation (day before)·
- **Antibiotics**: IV prophylactic antibiotics (pre-incision)·
- **Anesthesia**: General, spinal, or epidural.
- **Stoma marking**: Only in high risk patient with severe malnutrition and on systemic steroid therapy.

01 Position & exposure



01. Delivery of the prolapse completely .



02 Demarcation of incision line



-Critical landmark: Place incision 1–2 cm proximal (above) the dentate line·

Why?

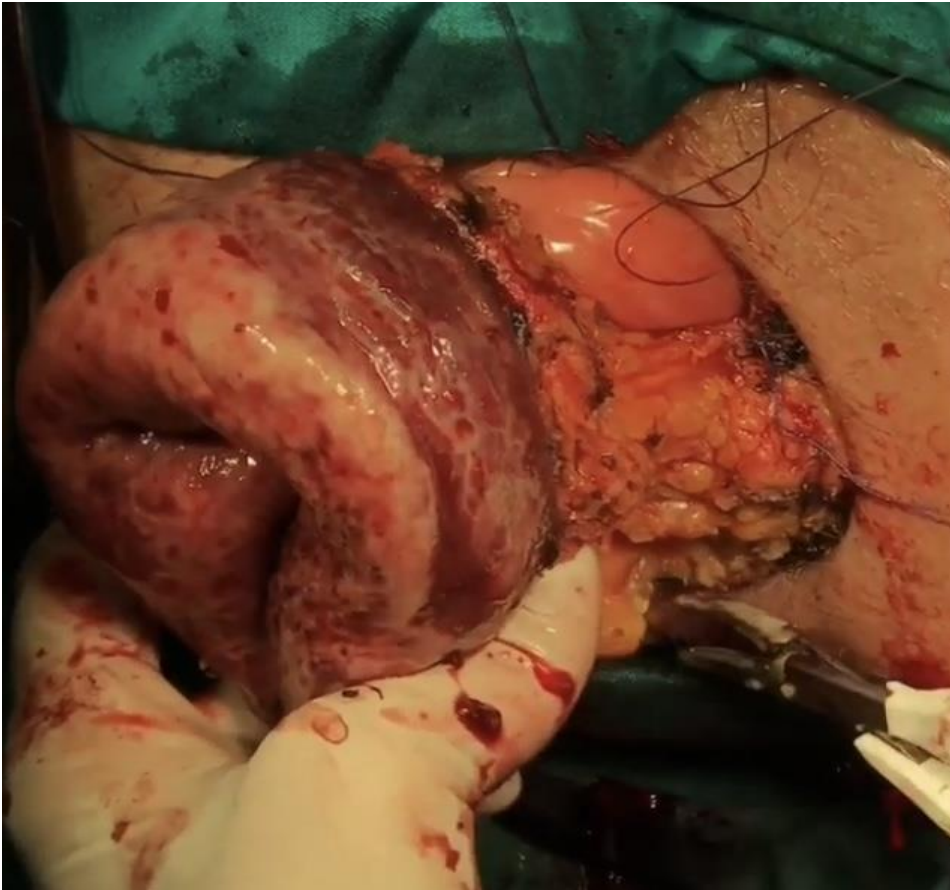
The dentate line preserves anal sensation and continence

03 Full-thickness proctotomy



**Open the rectal wall
until mesorectal fat is seen.**

04 Circumferential division



Dissect the rectum and mesorectal fat all around

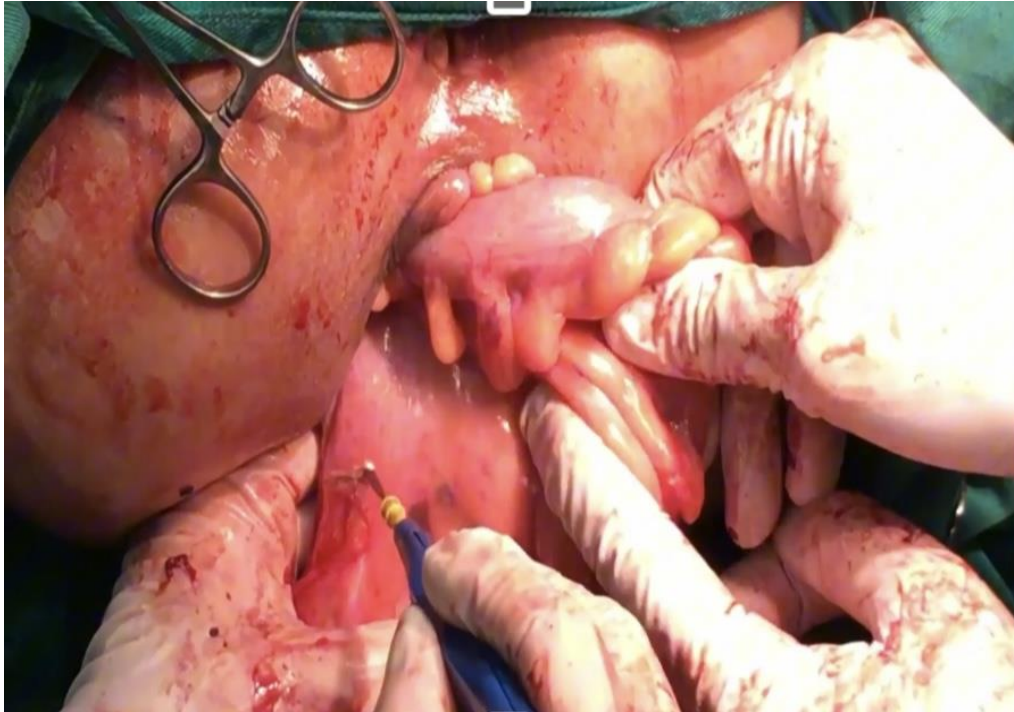
Traction is for exposure — not blind force.

05 Anterior peritoneal reflection



- Open under direct vision.
- Explore the cavity.
- Avoid uncontrolled tearing.

06 Mesenteric mobilization

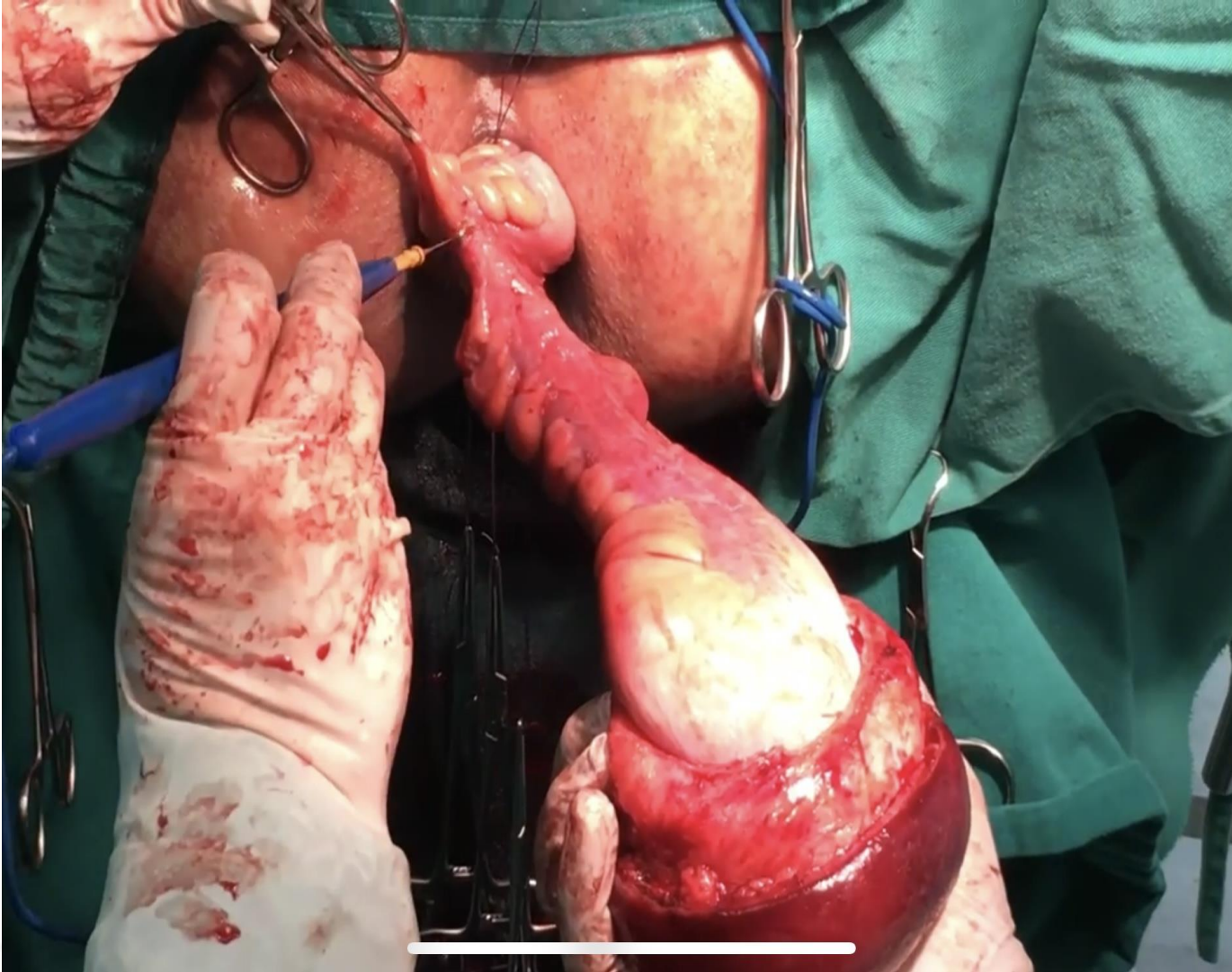


MESENTERY

**Create small
windows
close to bowel**

- divide / seal sequentially.
- preserve planned proximal blood supply.
- deliver more bowel.

07 Resection



Not a fixed length

Choose the point
where:

- bowel is healthy
- perfusion is reliable
- reach is tension-free

08 The critical decision

GOOD

PERFUSION

REACH

NO TENSION

✓ ANASTOMOSE

STOP

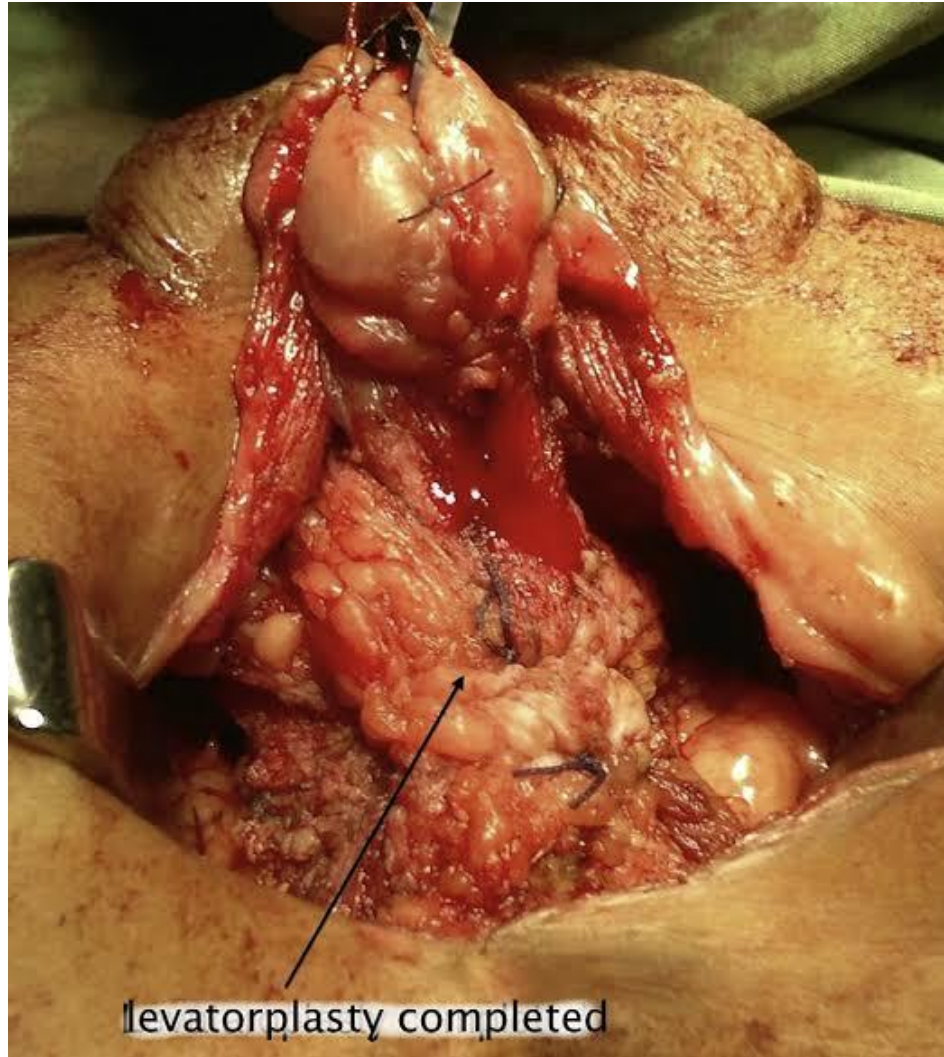
DUSKY

SHORT

TENSION

✗ MOBILIZE / RESECT

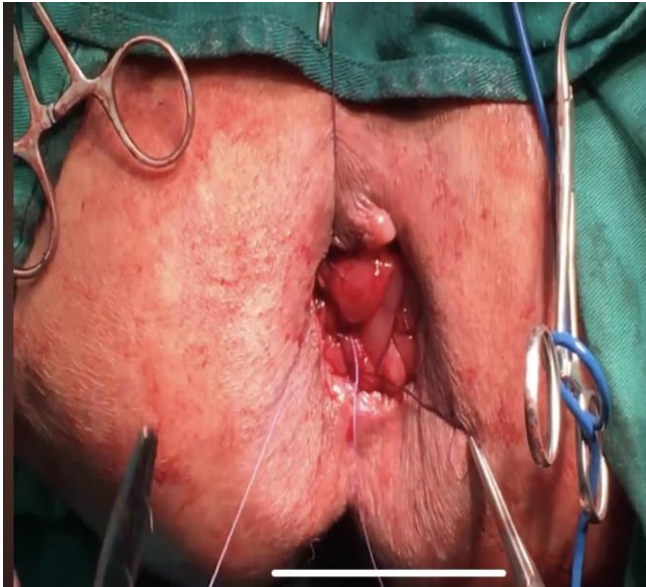
09 Levatorplasty — selective



WHEN I CONSIDER IT

Marked levator weakness

10 Coloanal anastomosis



FULL THICKNESS

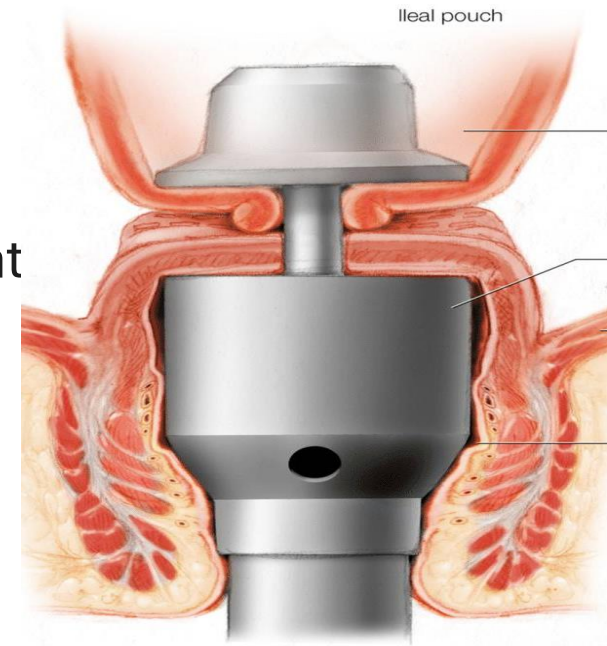
Handsewn

- Cardinal sutures first
- Full thickness
- Complete circumference

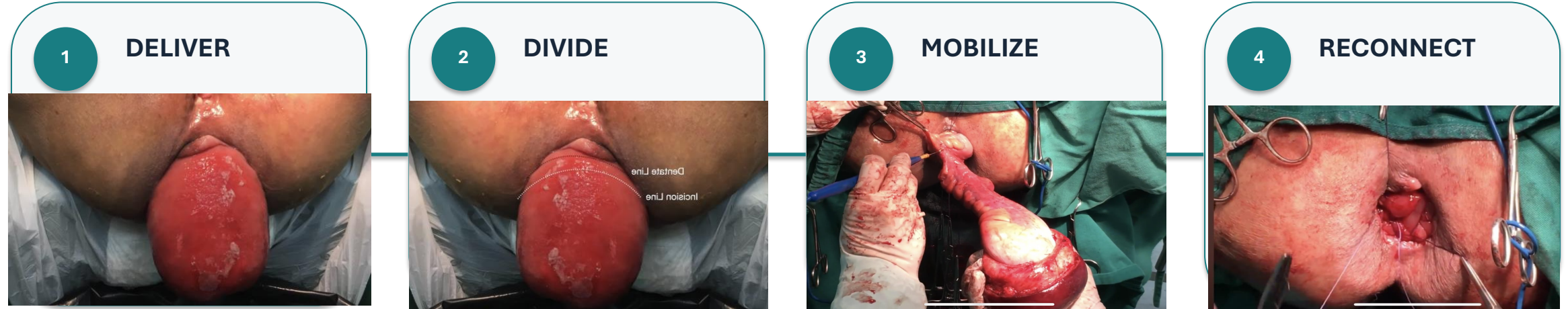
OR

Stapled

- Correct orientation
- No mesentery caught
- No tension



The operation in one picture



OPERATIVE GOAL

A tension-free, well-perfused coloanal anastomosis

Avoid

-  **Incomplete delivery** — → poor visualization
-  **Too distal incision** — → functional morbidity
-  **Blind traction** — → uncontrolled injury
-  **Under-mobilized colon** — → tension
-  **Poor perfusion** — → anastomotic failure

Take Home message

- **Altemeier procedure is an excellent , minimally stressful option for high-risk patients.**
- **Not a first-line for young, healthy patients (higher recurrence vs. abdominal repair).**
- **Success = Appropriate patient selection + Generous resection + Tension free anastomosis.**

Selected operative references

- Sakata S, et al. How to do an Altemeier perineal rectosigmoidectomy for full-thickness rectal prolapse. ANZ J Surg. 2021.
- ASCRS Toolkit. Perineal rectosigmoidectomy (Altemeier) — operative video and teaching points.
- ASCRS Clinical Practice Guidelines for the Treatment of Rectal Prolapse.
- Perineal Approaches to Rectal Prolapse. Clin Colon Rectal Surg.

Thank you