Creating a Stoma

- Colostomy
- Ileostomy
- Complications

- Acknowledgement : Prof. Robin Philips - St. Marks hospital, London - One of the greatest teachers of our times.

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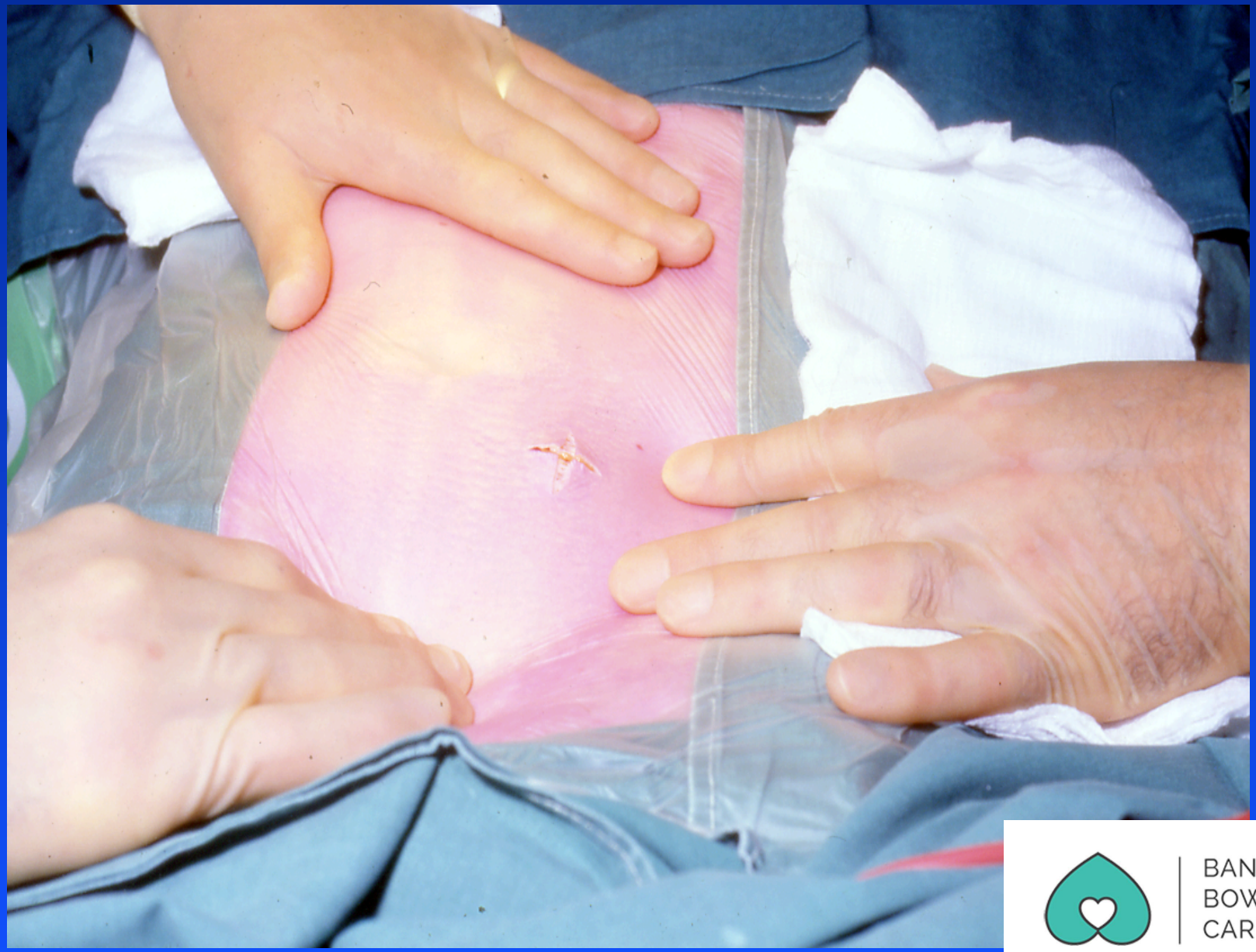
Making the hole. Vertical cut longer than horizontal. Langer's lines will then draw into circle



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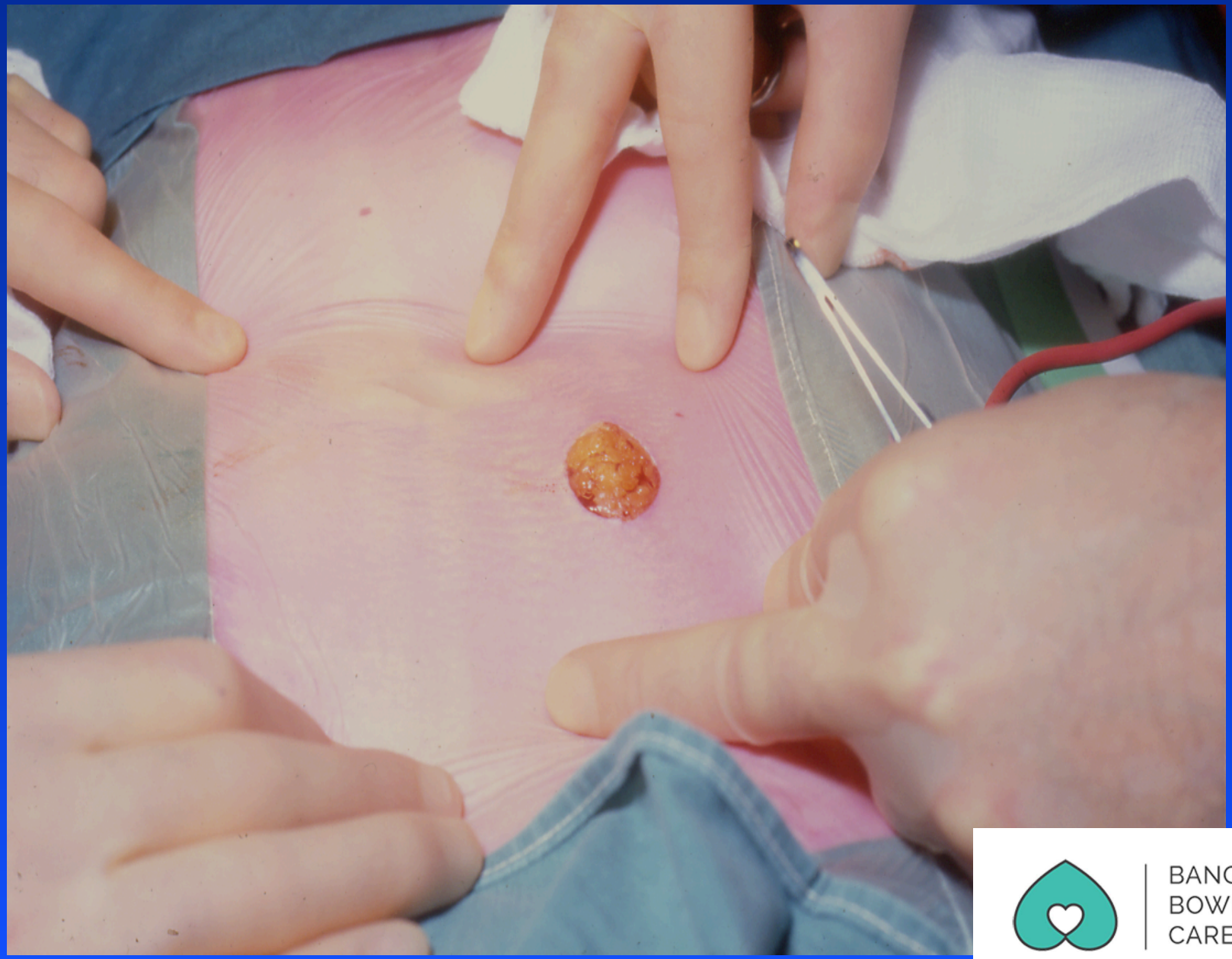
A circle rather than an ellipse



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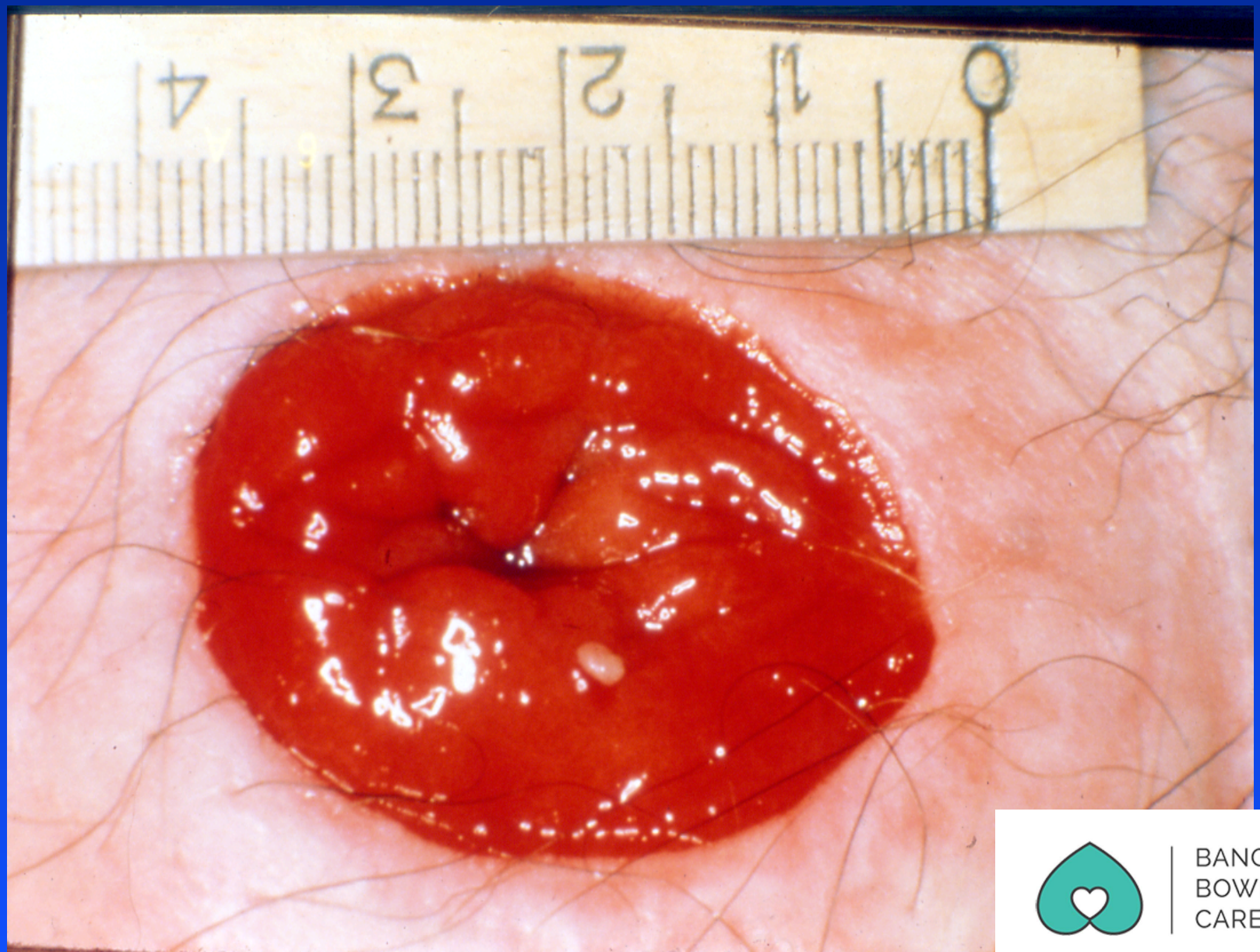
How to make a slight ‘rim’ to a colostomy?



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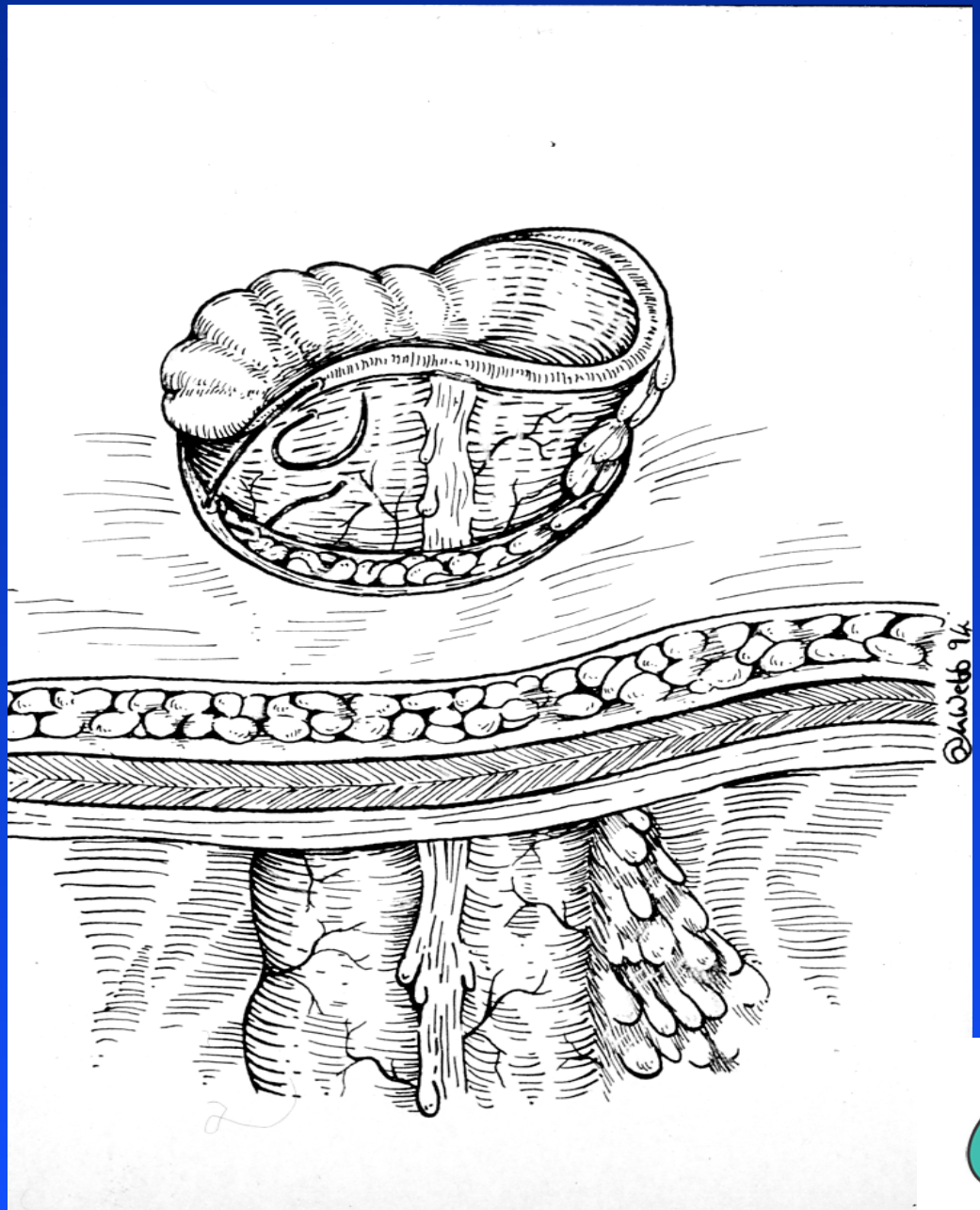
Minimally raised end colostomy – Int J Colorectal Dis 1995; **10**: 232-233

Sutures are placed ‘upside down’, like with a fat stitch, so the knot is under the rim, raising it up



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Minimally invasive stoma

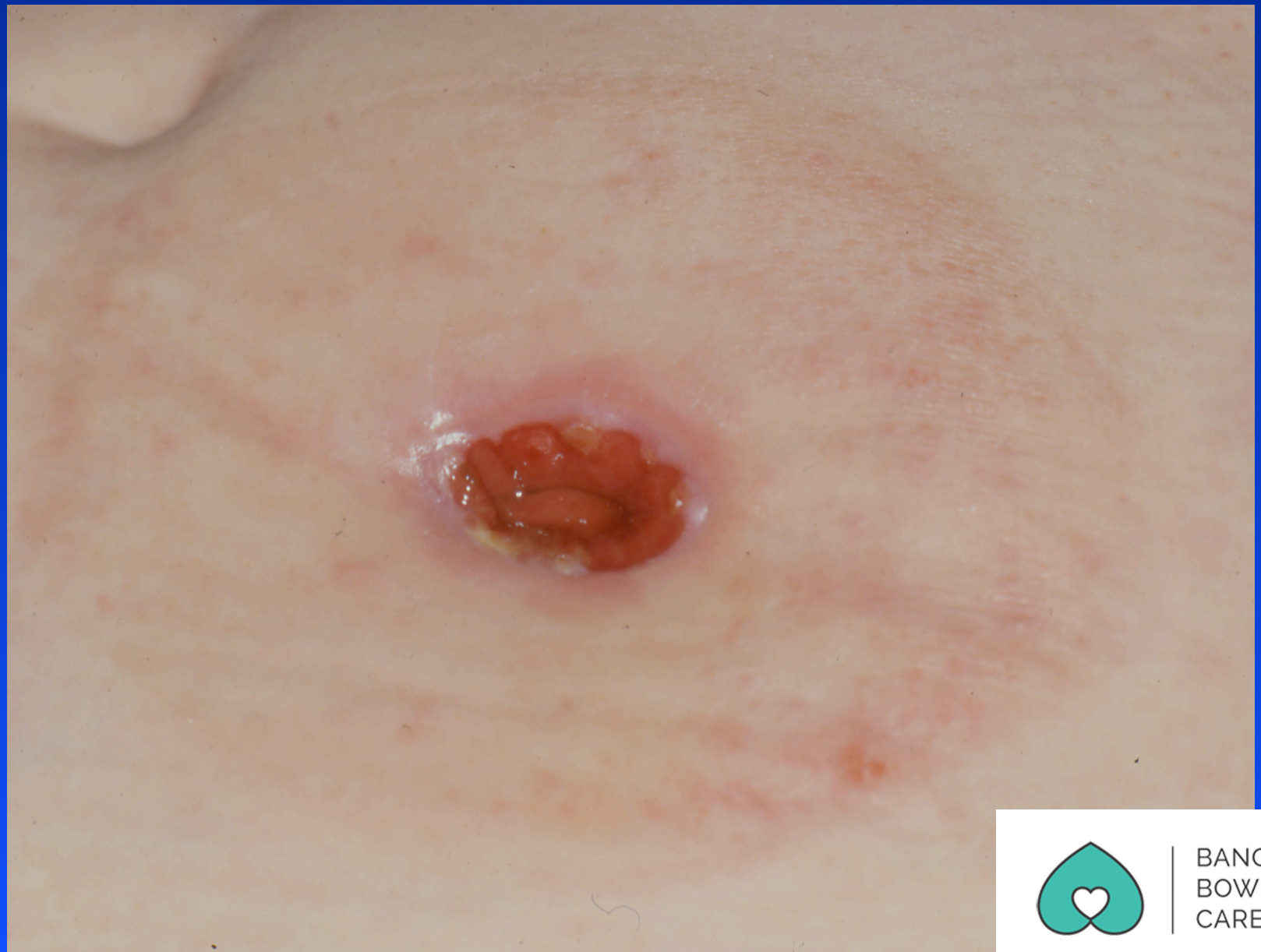
Trephine techniqueIdentify colon by Taenia; sigmoid by appendices epiploicae and no omentum

- great care to avoid closing wrong end
- successful 80% +

Laparoscopic

- more laborious, more expensive, increasing popularity

Lying down on the operating table, stoma looks fine



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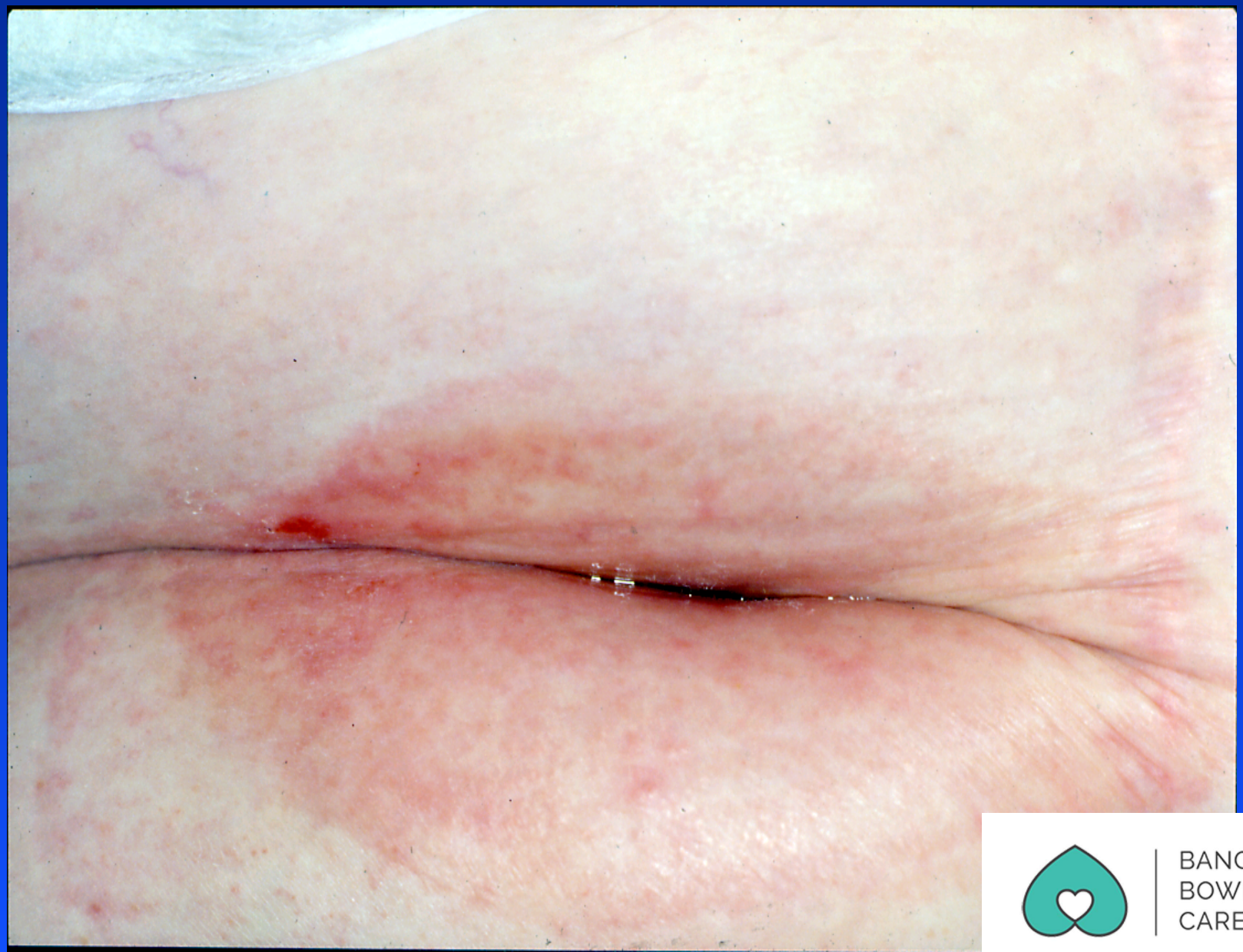
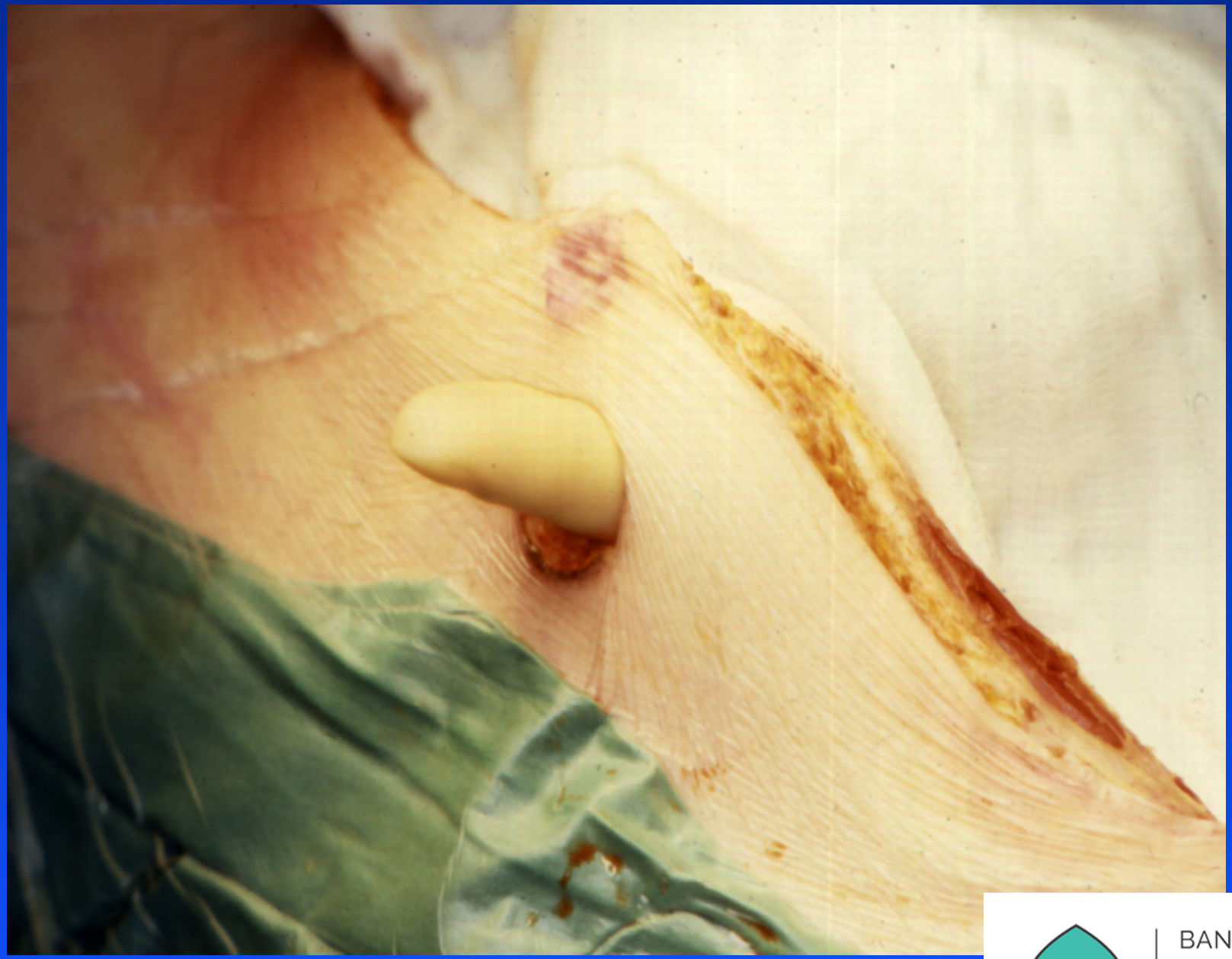
On standing or sitting, stoma retracts as there is not enough ‘travel’. message: a colostomy needs more length than you think





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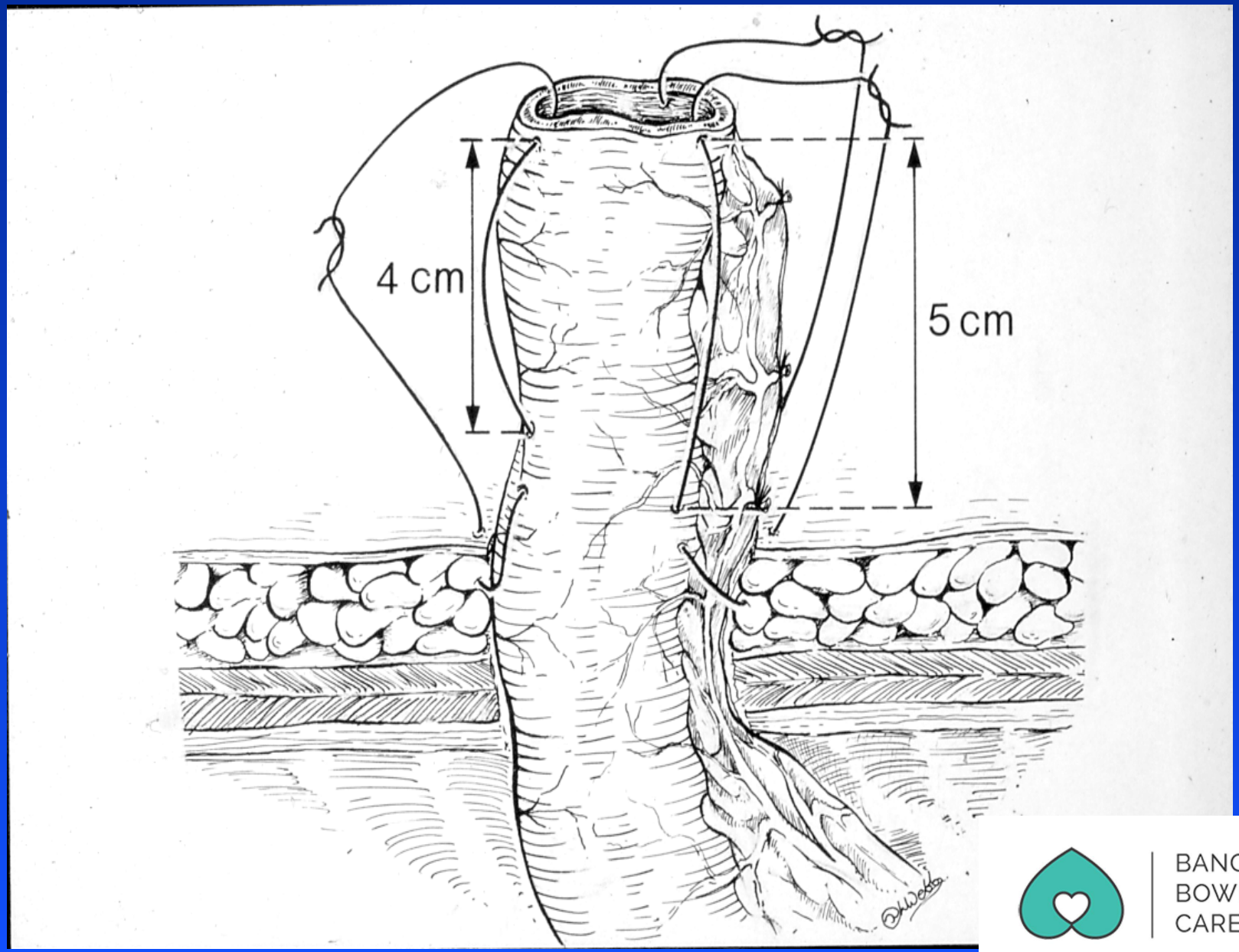
The 554 ileostomy – Br J Surg 1995; **82**: 1385



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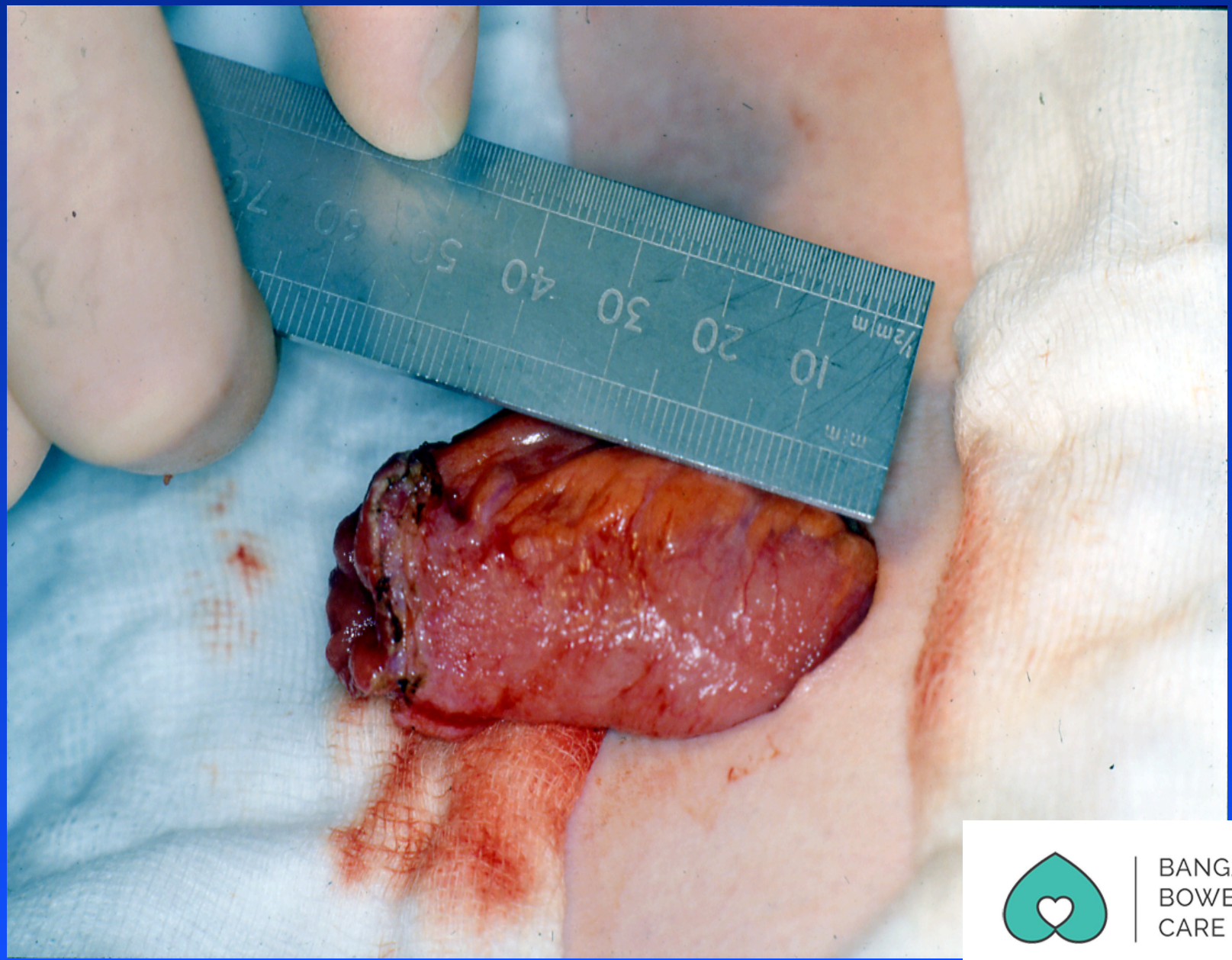

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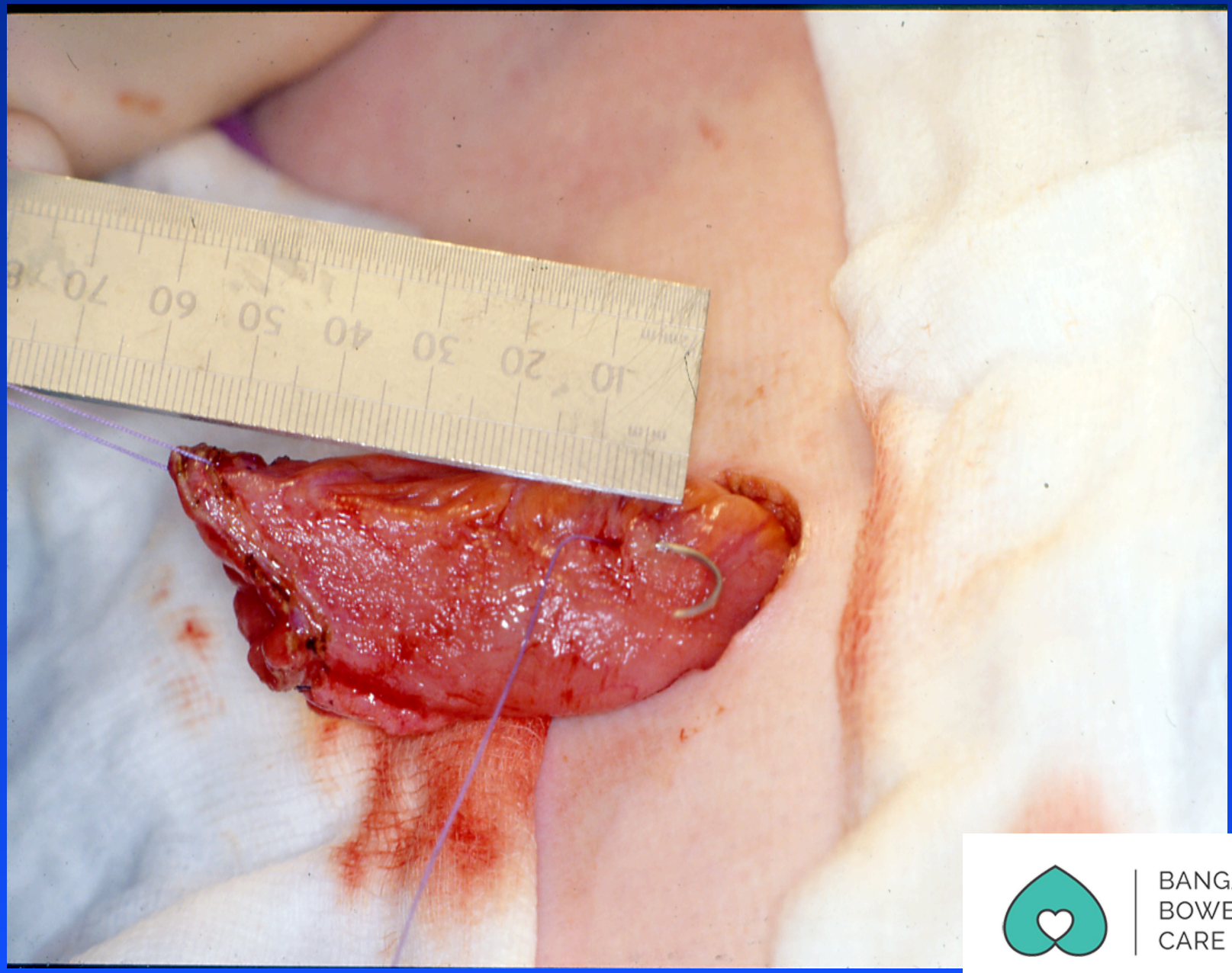

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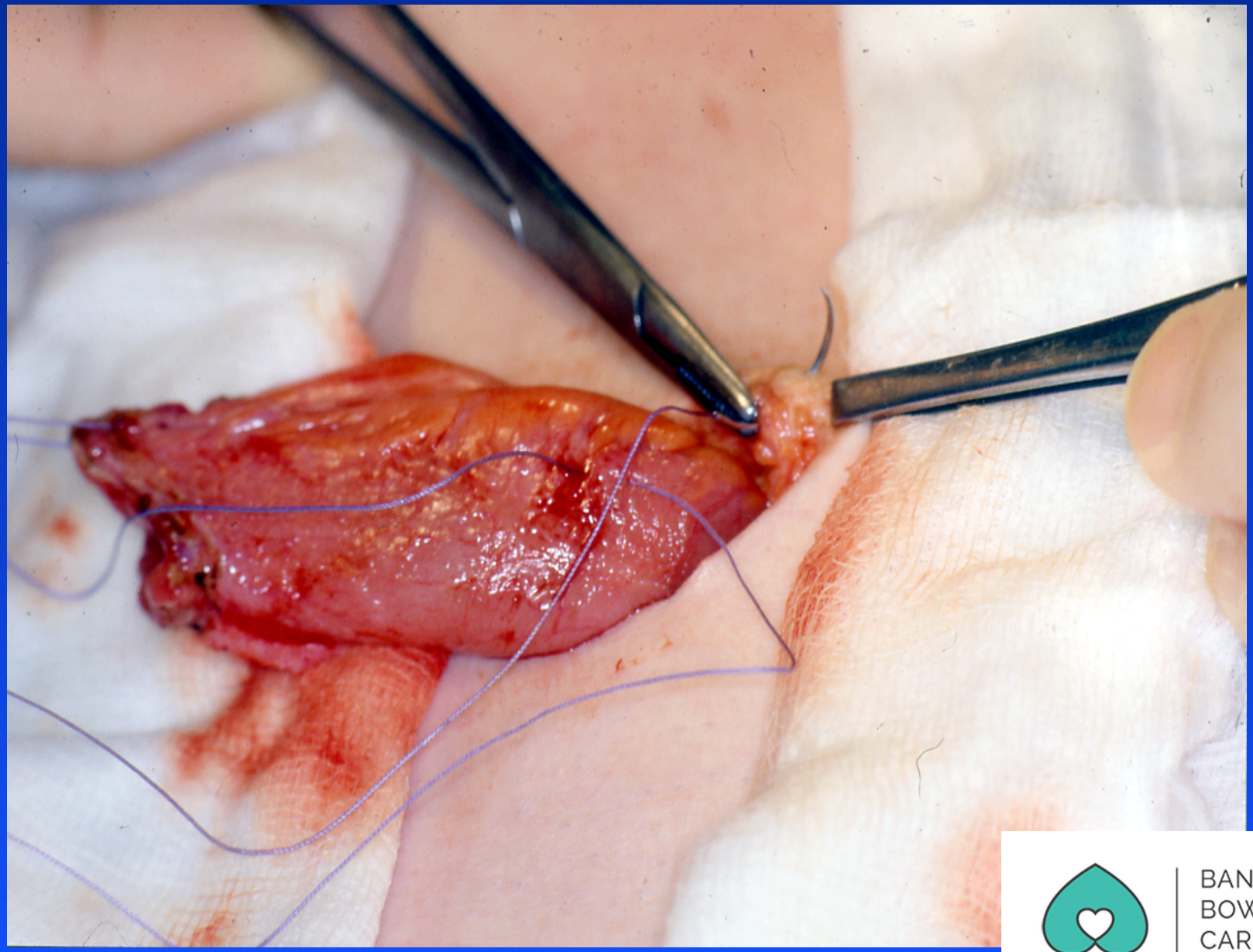

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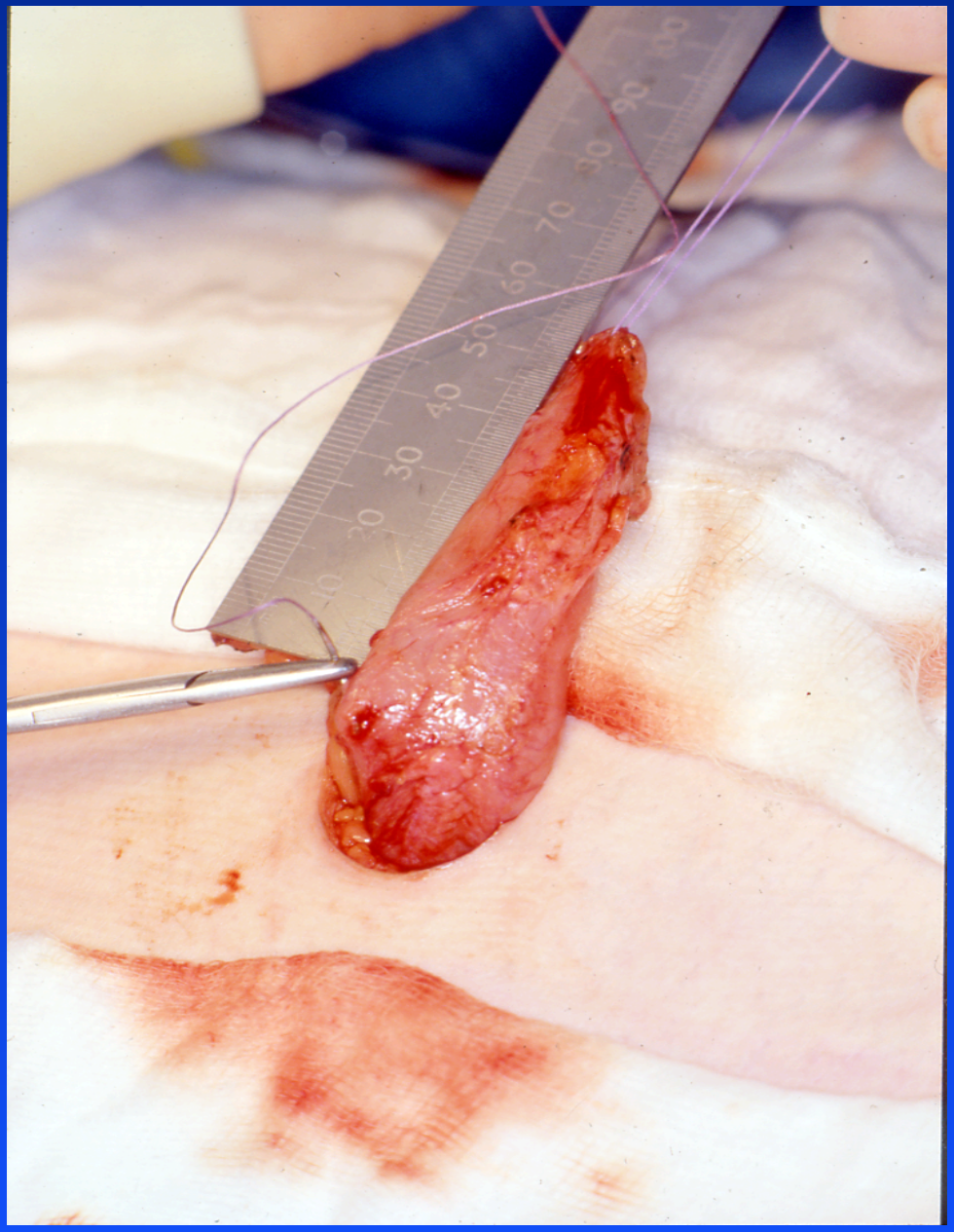

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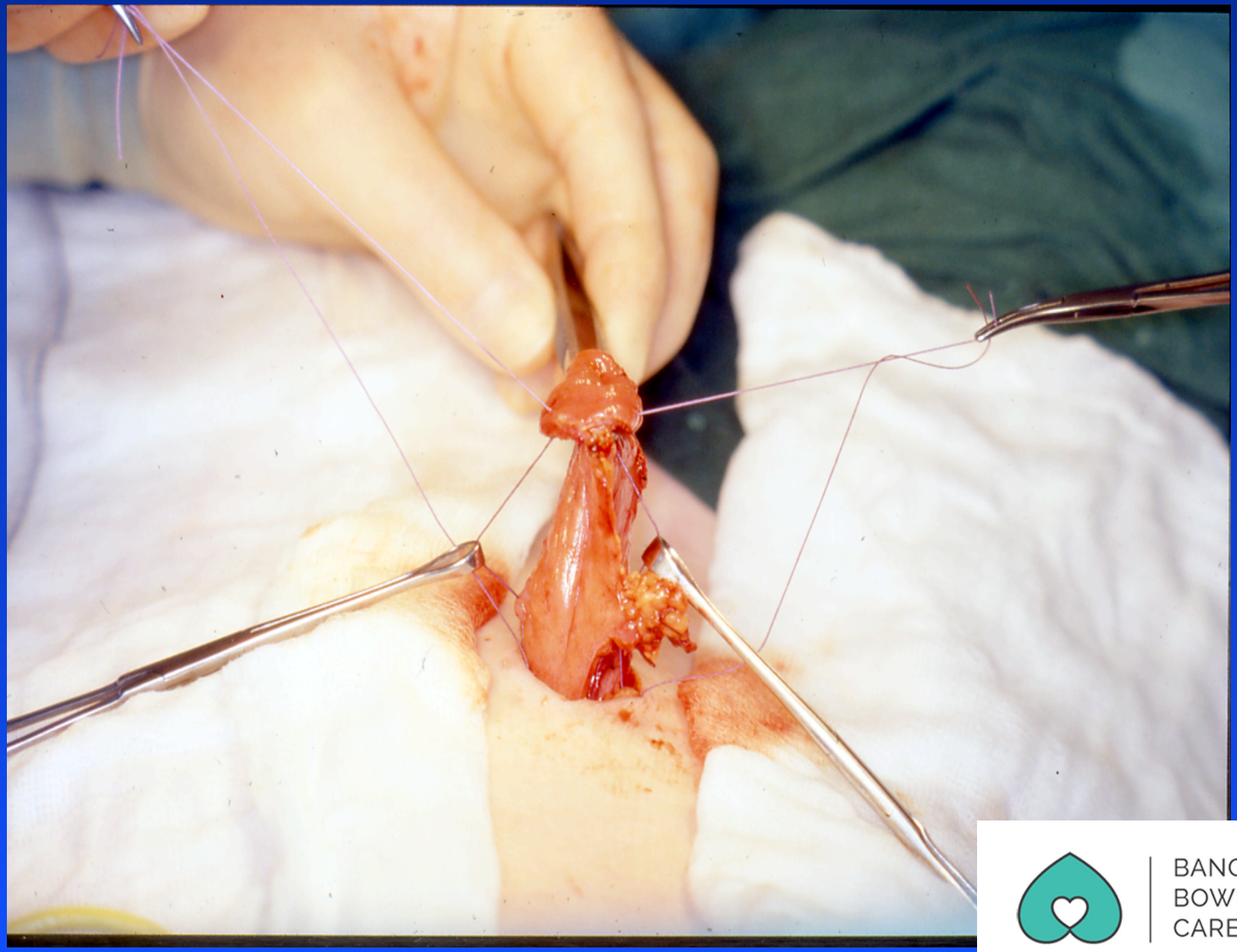

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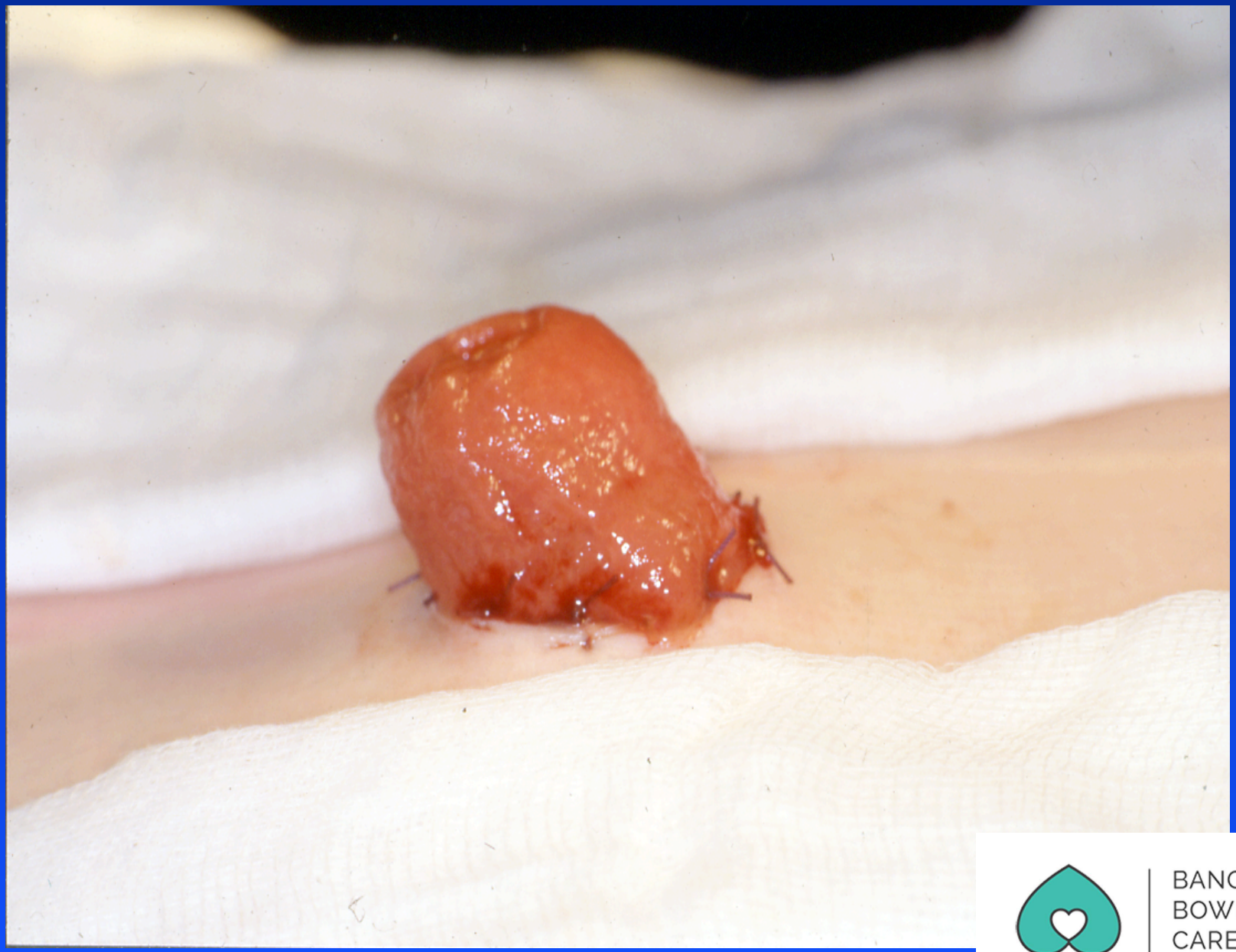
The 554 ileostomy – spout is 2.5cm cephalad, 2cm caudad



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Loop ileostomy versus loop colostomy

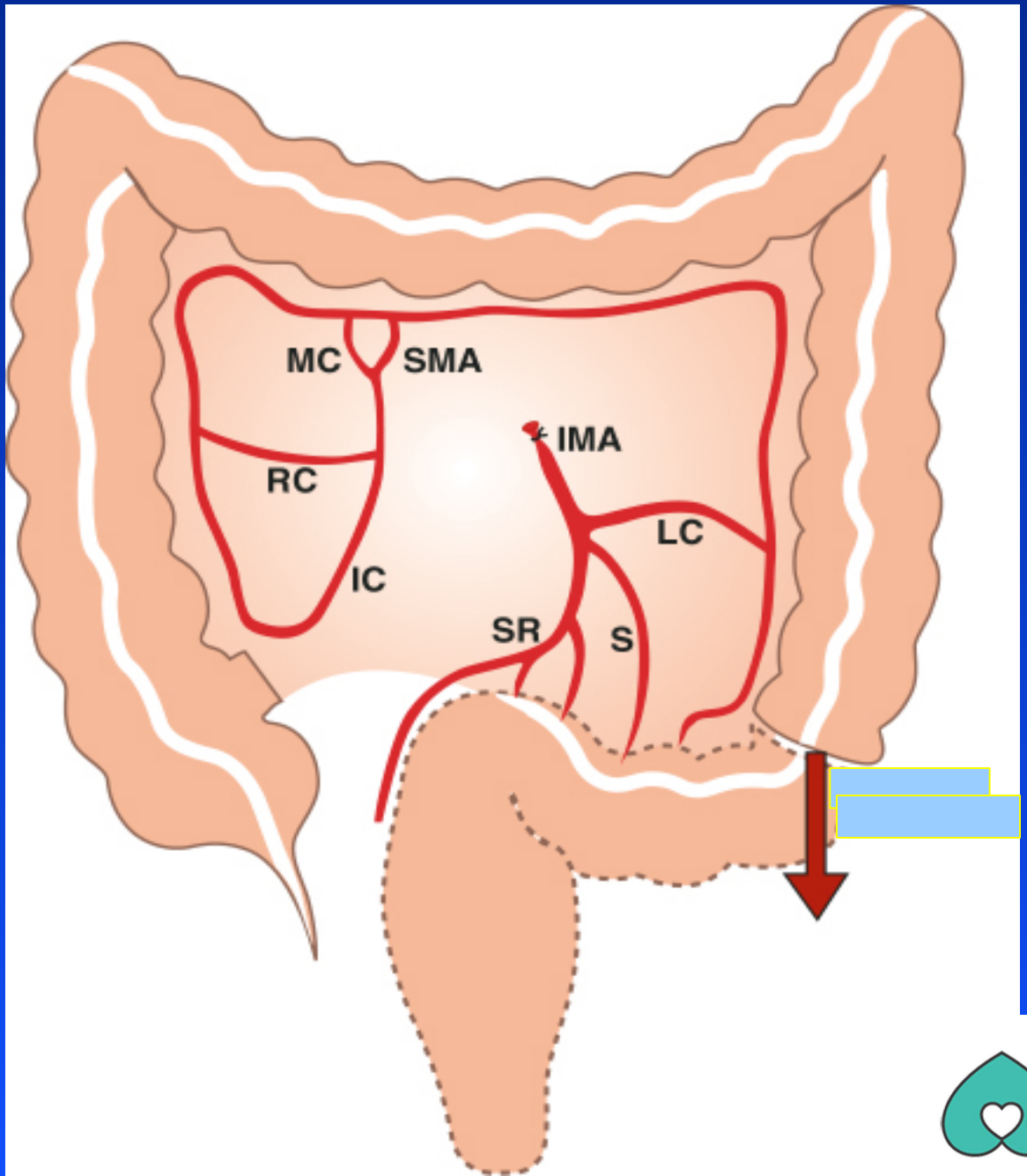
loop ileostomy

- good situation in the RIF
- easy to construct
- moderately easy to live with
- difficult technical closure

loop colostomy

- poor situation in the RUQ (but can be moved)
- prone to prolapse, bulky and hard to live with
- easy closure

Proximal colon supplied by the marginal artery from the middle colic



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Loop ileostomy

- when de-functioning a colorectal anastomosis there is no tension and a rod is unnecessary
- but when de-functioning an ileo-anal anastomosis the mesentery is pulled sharply posterior and it can sometimes be difficult to construct a loop ileostomy at all; thus a rod is usually necessary to prevent retraction, to be removed 5-6 days later

Ileostomy complications

- 150 end ileostomies
- 1971-1980
- actuarial at 20 years
  - 76% UC
  - 59%CD
- skin 34%, obstruction 23%, retraction 17%, hernia 16%

Br J Surg 1994; 81: 727-9

Colostomy complications

- 203 end colostomies
- 1971-1980
- Actuarial at 13 years 58%
- Paracolostomy hernia 37% at 10 years

Dis Colon Rectum 1994; 37: 916-20

Para-stomal hernia

Effect of situation

- Ileostomy
  - through rectus 21%
  - through obliques 7%
- Colostomy
  - through rectus 24%
  - through obliques 23%

Para-stomal hernia

Effect of age

- ileostomy
  - >55 = 28%
  - <55 = 11%
- colostomy
  - >55 = 25%
  - <55 = 8%

Para-stomal hernia

Other hernias

- Ileostomy
  - 19% vs 4% (P<0.025)
- Colostomy
  - 12% vs 3% (P<0.01)

Stomal prolapse

- Ileostomy
  - mesenteric fixation 11%
  - no mesenteric fixation 0%
- Colostomy
  - mesenteric fixation 5%
  - no mesenteric fixation 6%

Lateral space closure

Obstruction

- Ileostomy
  - closed 15%
  - open 3%
- Colostomy
  - closed 4%
  - open 3%

Prophylactic preventative mesh

- RCT
- n = 54
- mean follow-up 14 months (range 2-28)
- no infection/fistula/pain
- at 12 months
  - 8 of 18 controls had a hernia
  - 0 of 16 with mesh (P = 0.003)

Janes et al Br J Surg 2004; 91: 280-2

Prophylactic preventative mesh

Method

- Vypro : Sublay, anterior to rectus sheath tacked with absorbable sutures

Definition

- ‘a protrusion in the vicinity of the stoma was considered to be a hernia’

Janes et al Br J Surg 2004; 91: 280-2 2004; 91: 280-2

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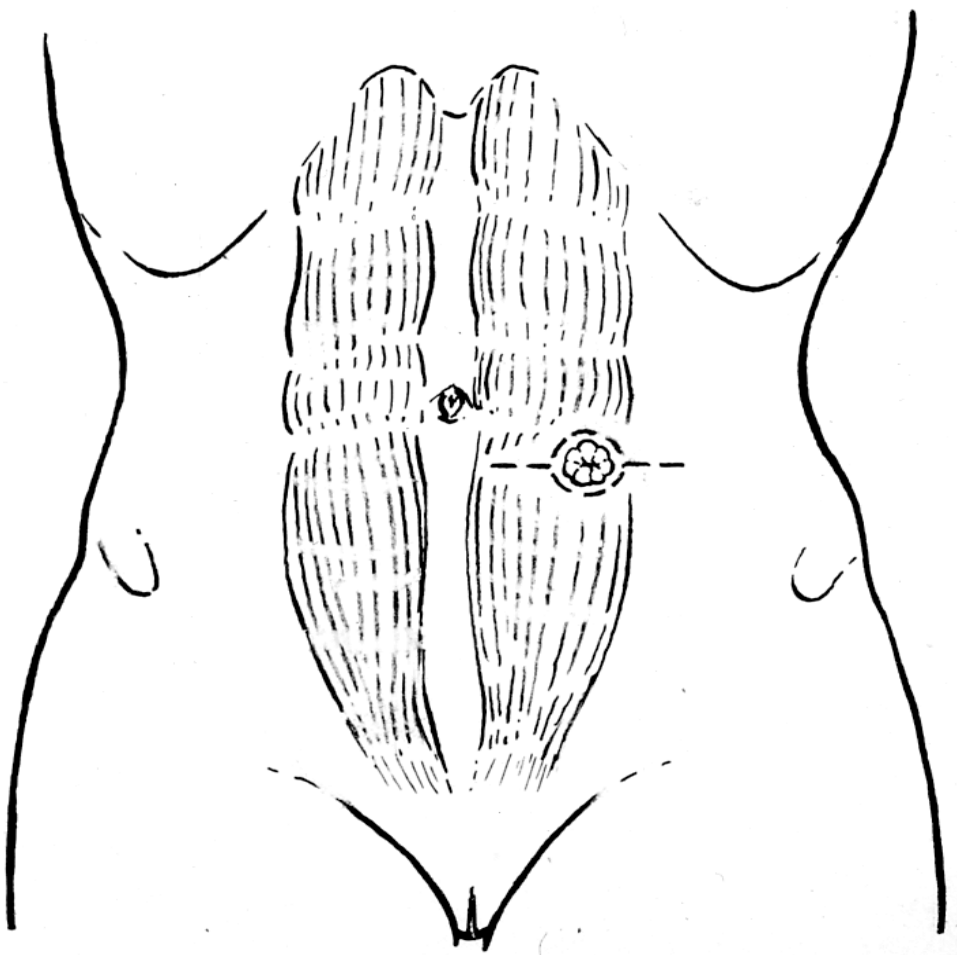
local re-siting and mesh repair



Br J Surg 1995; 82: 1395-6

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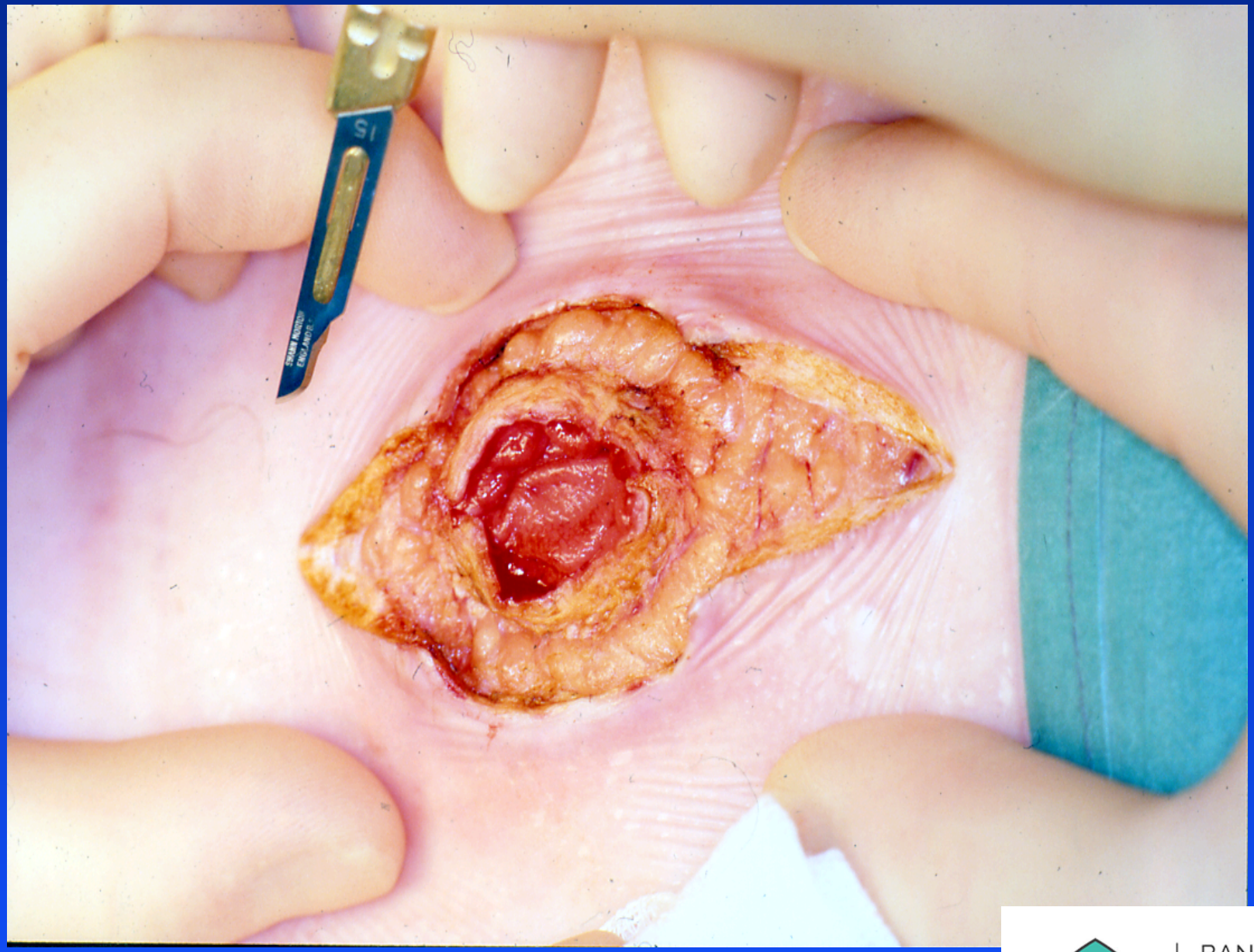

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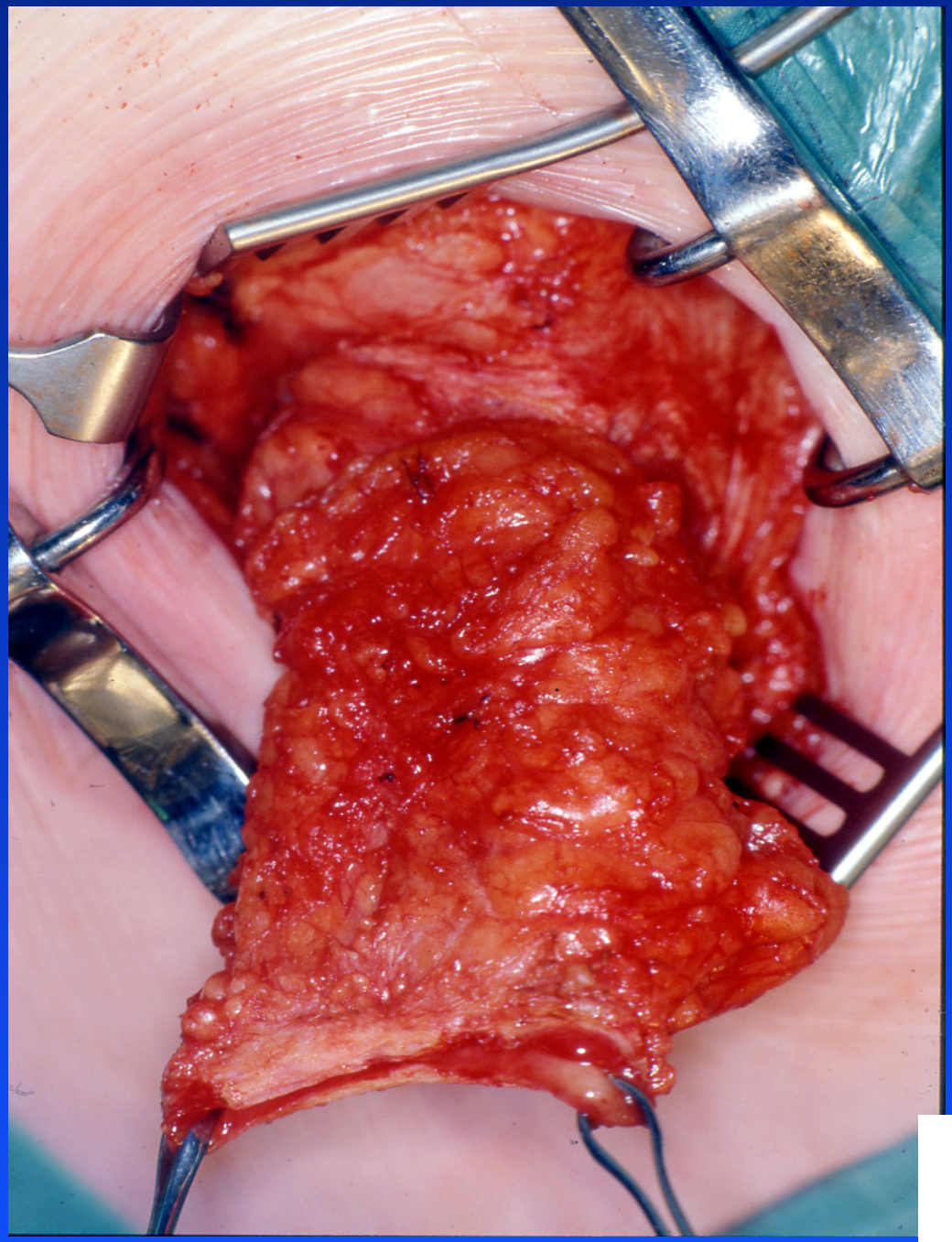

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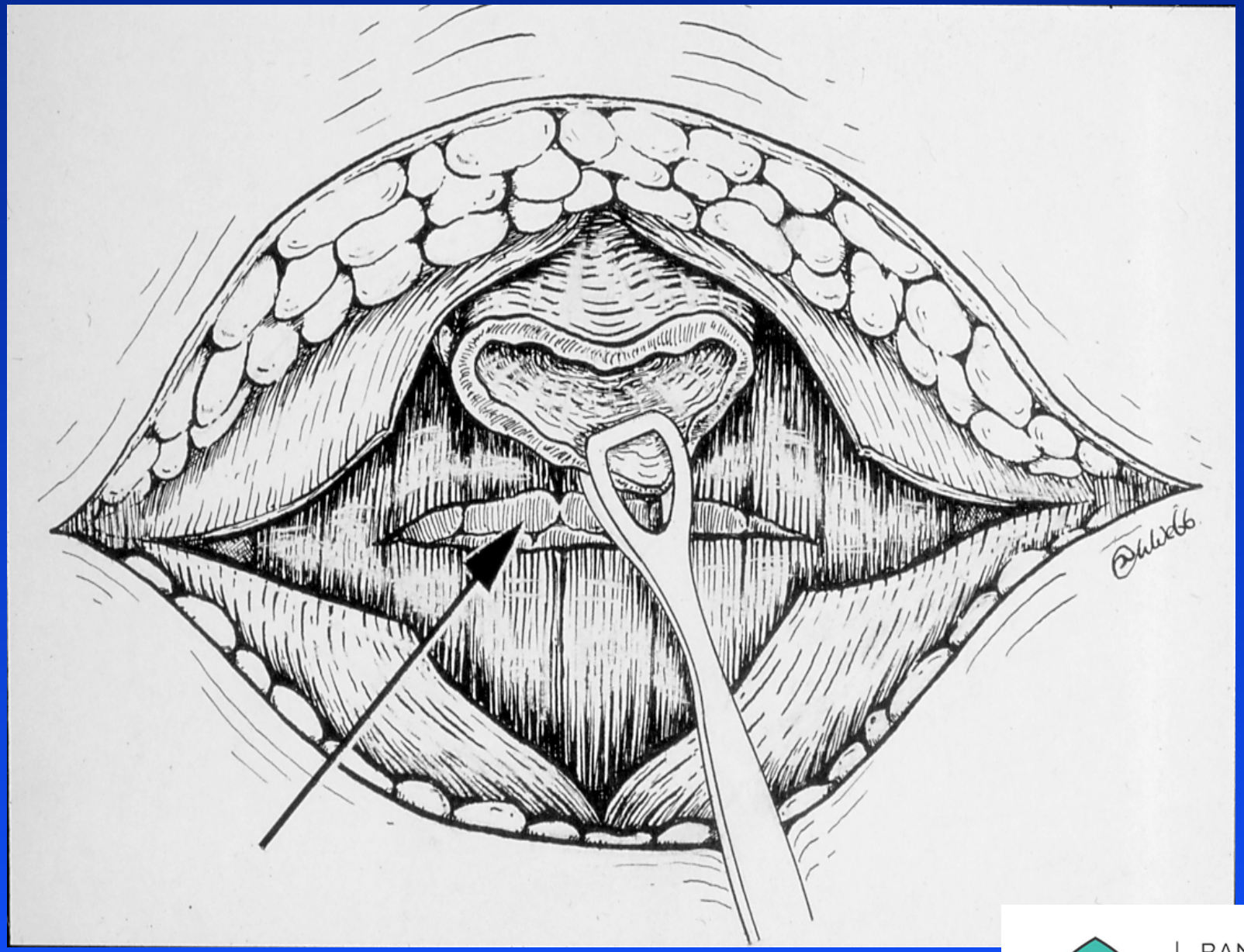

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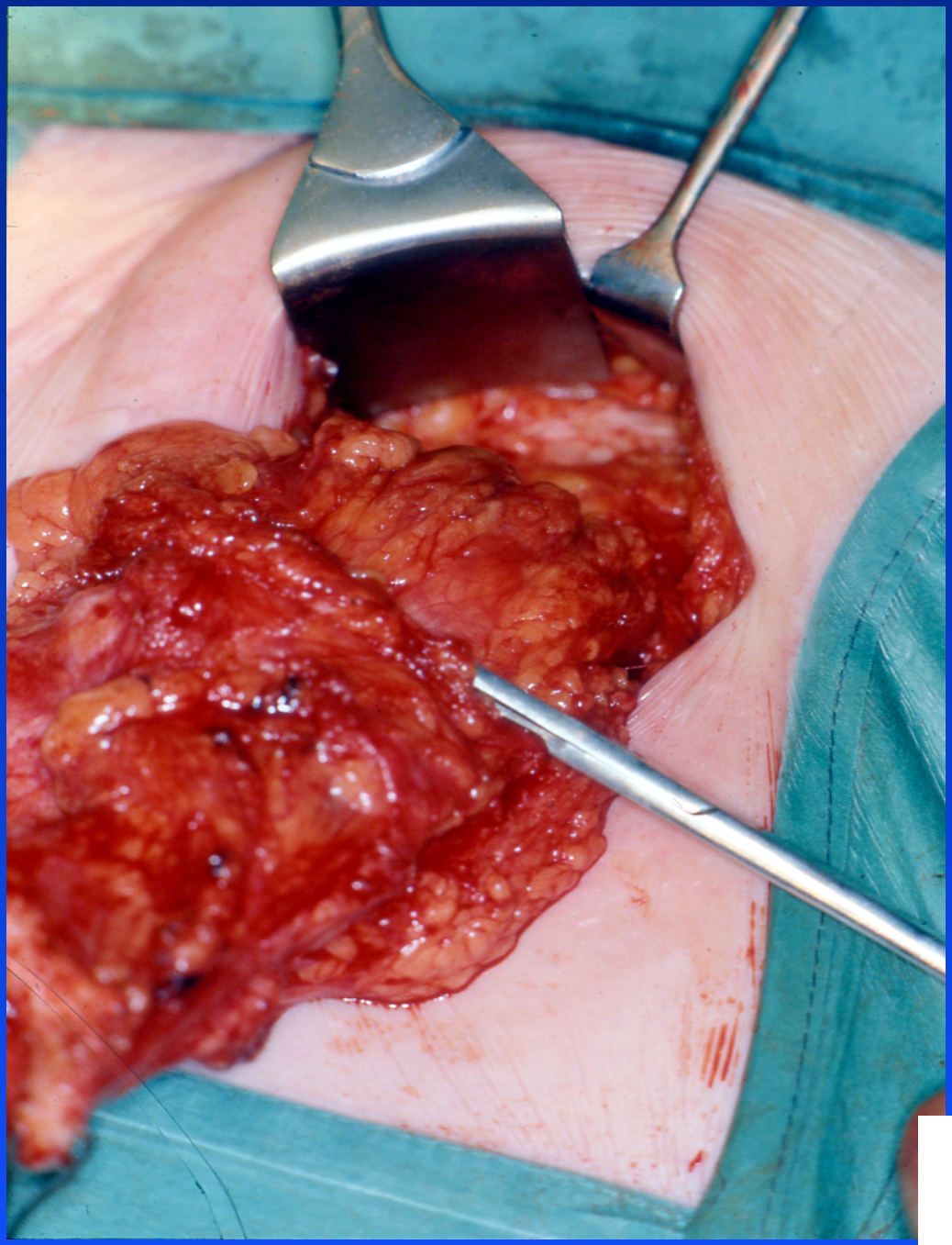

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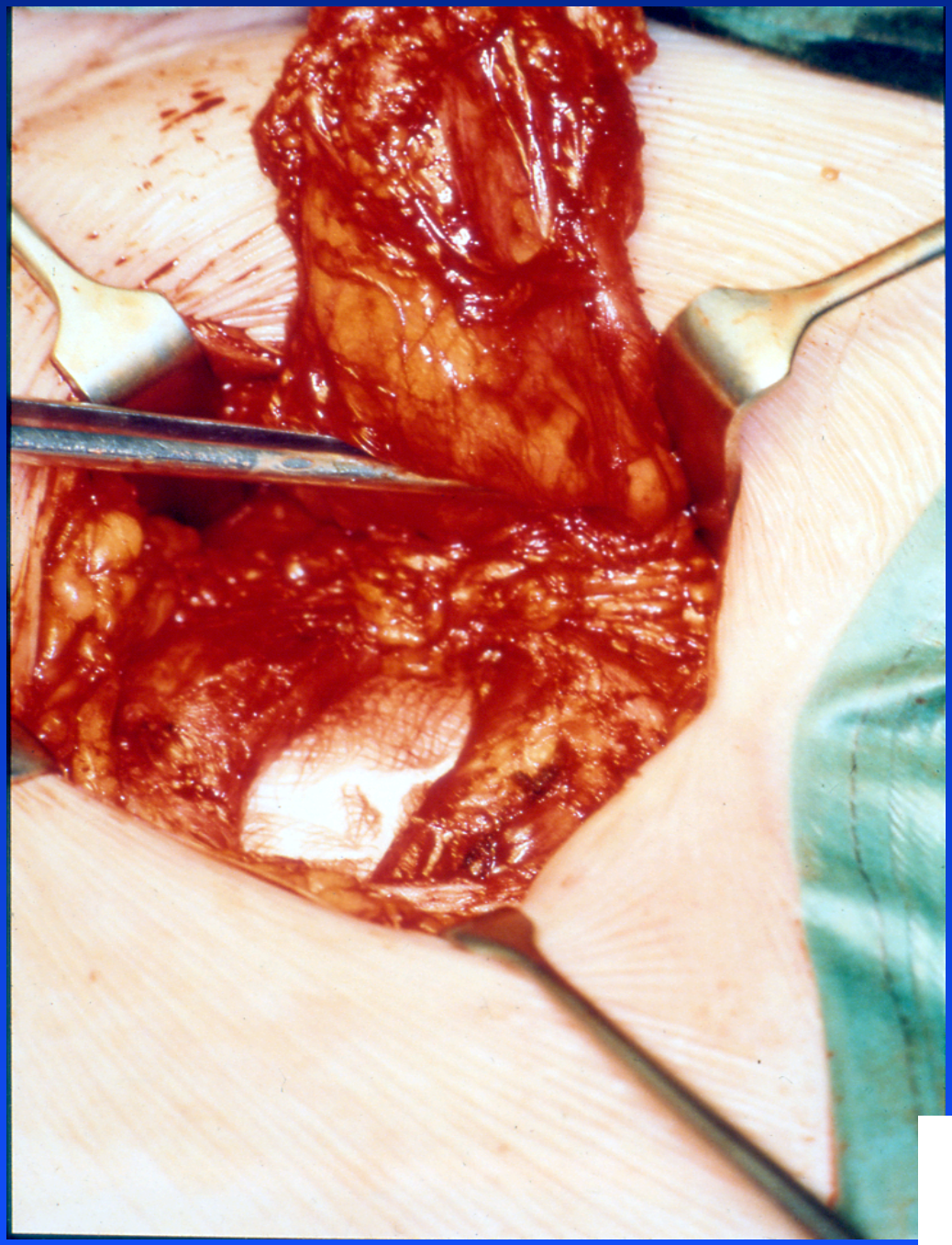

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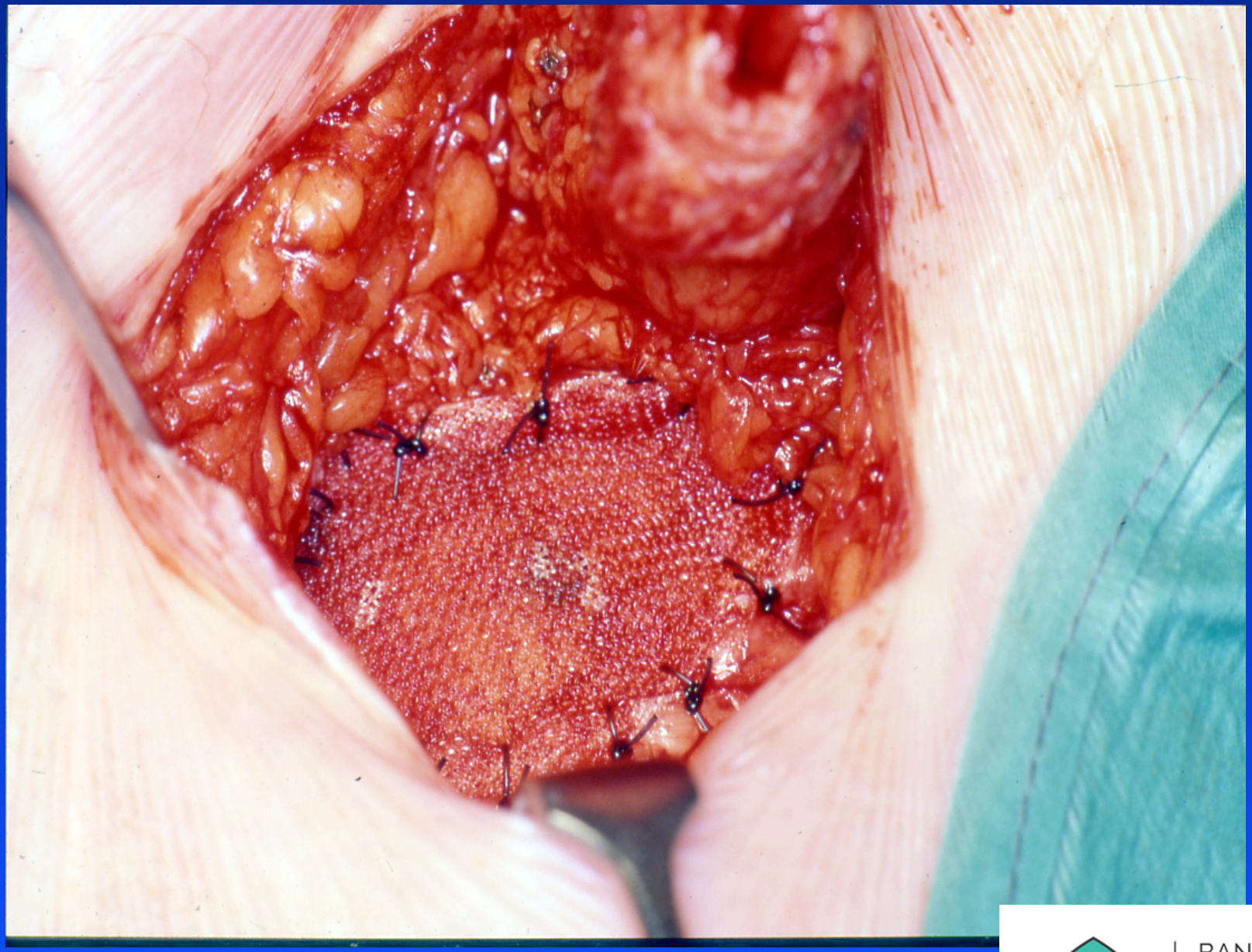

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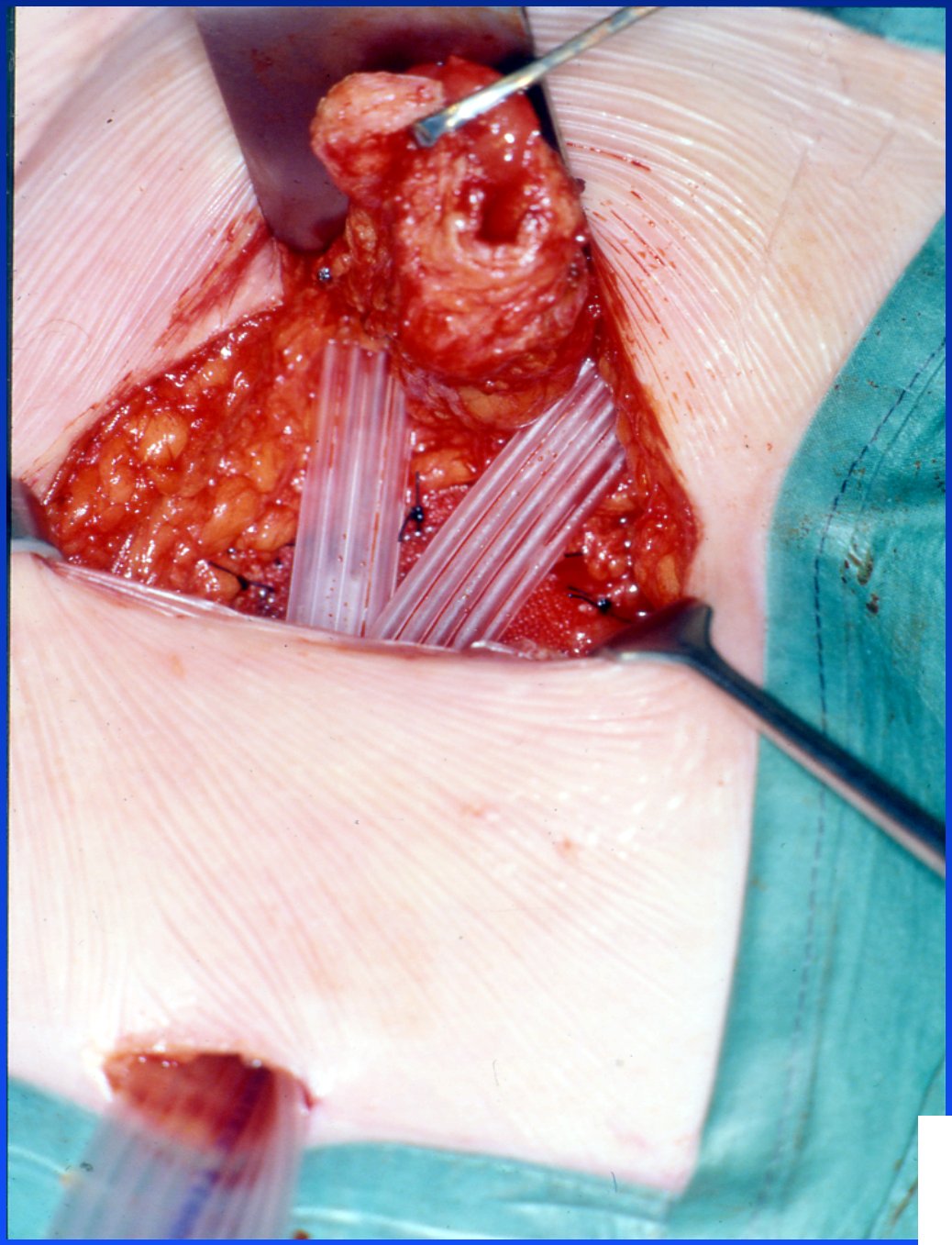

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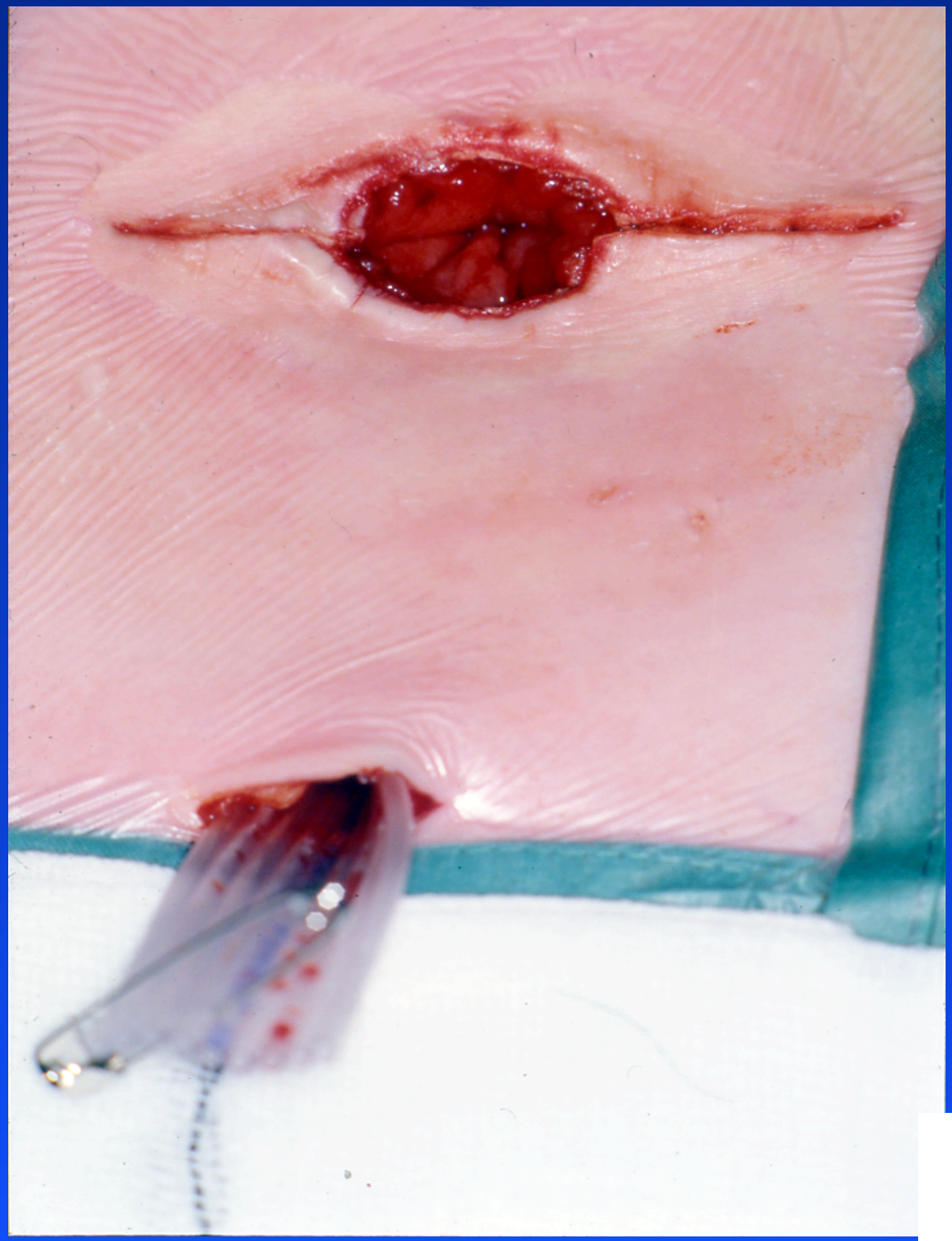

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Results

8 patients
(24 - 70 years, 6F)

6 para-colostomy, 2 para-ileostomy

duration of hernia
(8 - 36 months)

Br J Surg 1995; 82: 1395-6

Results

Wound sepsis / haematoma	3 / 8
Ultimate healing (mesh *in-situ*)	8 / 8
Recurrence of hernia (15/12)	0 / 8

Br J Surg 1995; 82: 1395-6

Local re-siting and mesh repair

- Avoids laparotomy
- Maintains existing stoma site
- ‘anxiety’ of mesh infection
- 1st choice procedure

“an apparently trivial oversight may lead to great problems and make a stoma a burden”

Brian Counsell and Sir Hugh Lockhart-Mummery 1954

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