مؤسسة حمد الطبية
Hamad Medical Corporation
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Splenic flexure mobilization When & How?

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What do the literature says?

> Dis Colon

Randomized Controlled Trial > Khirurgiia (Mosk). 2022;(7):33-44.

doi: 10.17116/hirurgia202207133.

[Mobilization of splenic flexure - routine or selective (results of a single-center randomized study)]

[Article in Russian]

V V Polovinkin [1], P S Pryn [1]

Affiliations + expand

PMID: 35775843 DOI: 10.17116/hirurgia202207133

Thang Chien Nguyen

Affiliations + expand

PMID: 35212116 DOI: 10.1111/ans.17307

Trying to summarize the literature!

- **Routine vs selective**
- **Operative techniques of mobilization**
- **Anatomical variation**

Review > Updates Surg. 2021 Oct;73(5):1643-1661. doi: 10.1007/s13304-021-01135-y.
Epub 2021 Jul 24.

Is routine splenic flexure mobilization always necessary in laparotomic or laparoscopic anterior rectal resection? A systematic review and comprehensive meta-analysis

Fabio Rondelli [1], Alessandro Pasculli [2], Michele De Rosa [3], Stefano Avenia [1], Walter Bugiantella [4]

Affiliations + expand

PMID: 34302604 DOI: 10.1007/s13304-021-01135-y

Abstract

Splenic flexure mobilization (SFM) is one of the most difficult steps in laparoscopic colorectal surgery and its role is harshly debated. Some surgeons considered it routinely necessary to obtain a safe anastomosis and to respect oncologic criteria; for others SFM is frequently unnecessary, not ensuring the aspects mentioned above and increasing the risk of morbidity (splenic, bowel and vessels injury, lengthened procedure). We performed a systematic review and a comprehensive meta-analysis, without any language restriction, about the peri-operative and post-operative outcomes (anastomotic leakage, intra-operative complication, conversion rate, operative time, post-operative bleeding, intra-abdominal collection, prolonged ileus, wound infection, anastomotic stricture, overall complications, hospital stay, re-operation, post-operative mortality, R0 margin resection, local recurrence) in patients undergoing elective anterior rectal resection (ARR) with or without SFM, both in laparotomic (LT) and laparoscopic (LS) approach. Fourteen studies were meta-analyzed with a total amount of 42,221 patients. The comprehensive meta-analysis shows that the mobilization or the preservation (SFP) of the splenic flexure does not statistically influence the incidence of colorectal anastomotic leakage, conversion rate, post-operative bleeding, intra-abdominal collection, prolonged ileus, wound infection, anastomotic stricture, overall complications, hospital stay, re-operation, R0 margin resection, and local recurrence results. The operative time is significantly longer in every group of patients undergoing SFM. The incidence of intra-operative complication is statistically increased in overall patients and also in the LS subgroup of patients undergoing SFM, in which also higher incidence of wound infection and re-operation is

What dictates SFM

- **Anatomical variations**
  - **Taking off the mesenteric vessels**
  - **The length of the mesentery: age, obesity, chronic inflammatory process: diverticulitis**
- **Location of the tumor**

When?

- **Routine:**
  - **TME**
  - **Descending colon lesions**
  - **Splenic flexure lesions**
- **Selective**
  - **Sigmoid colon lesions**
  - **APE**
  - **Extended right hemicolectomy?**
- **Initial or after pelvic dissection**

Why?

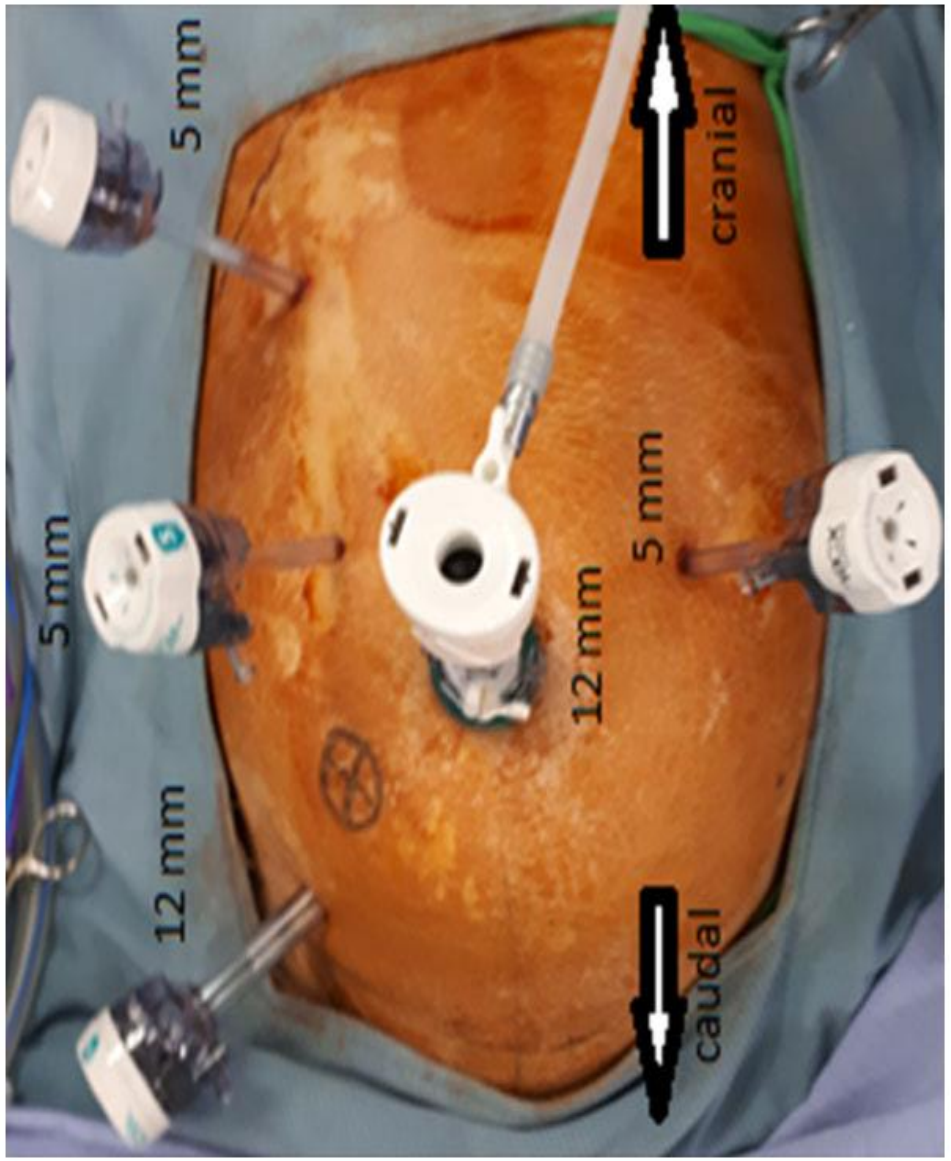
- **Tension free anastomosis**
- **Oncological reasons**

How?

- **Medial to lateral mobilization**
- **Lateral mobilization**
- **Infra-mesocolic**
- **Supra-colic**
- **Combined**

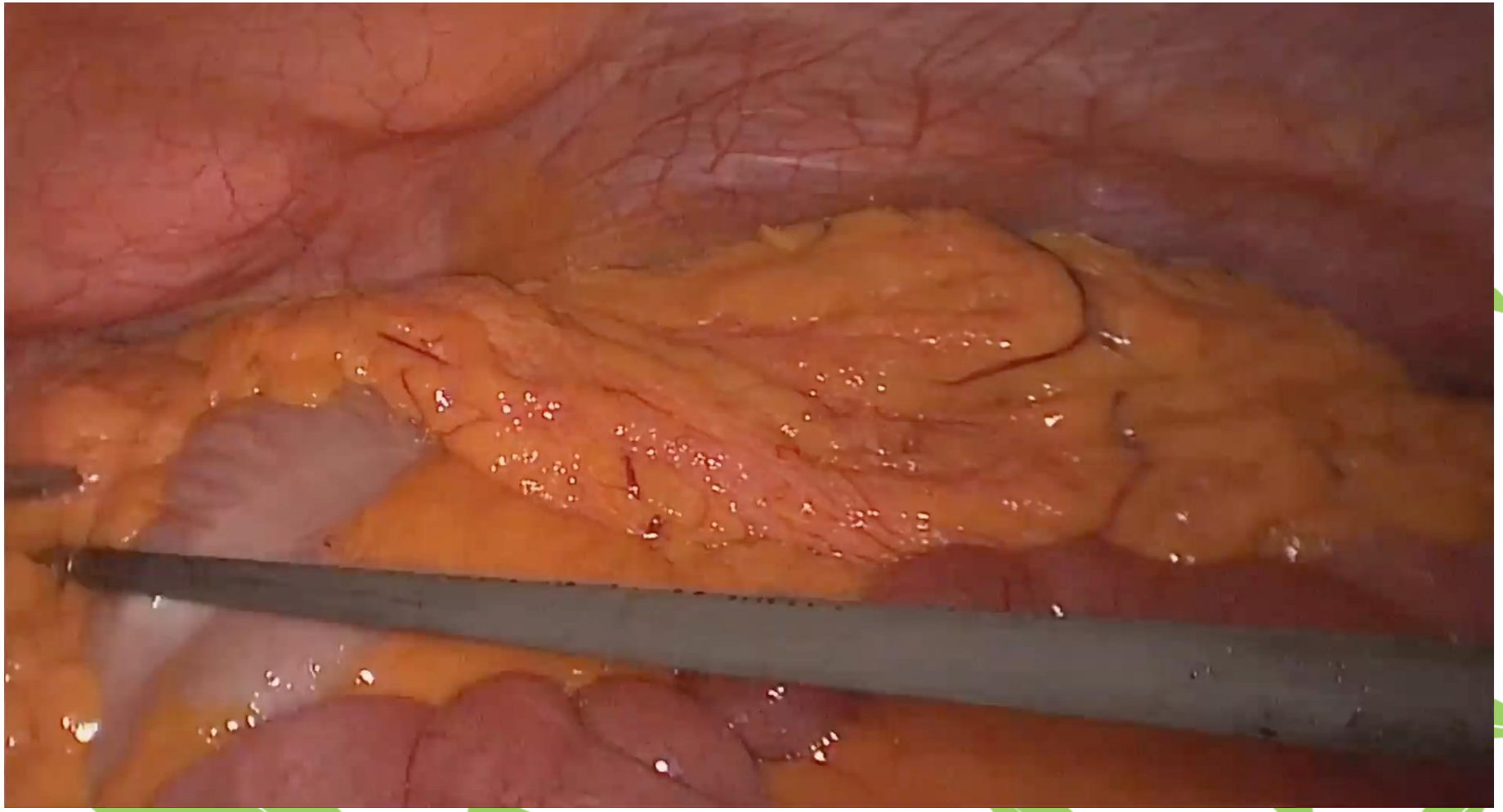
Technique

- Trocars placement



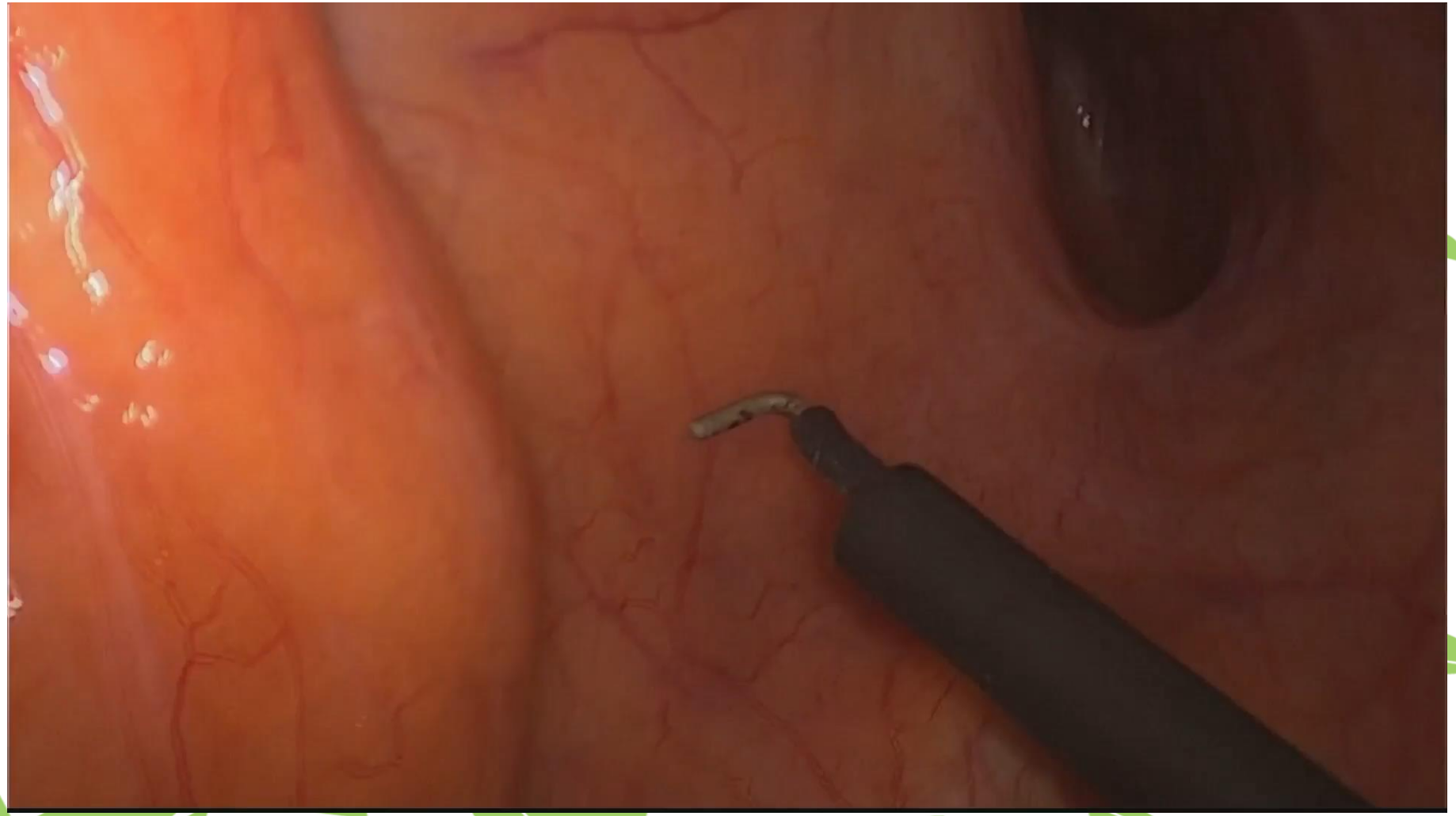
Technique

- Exposure



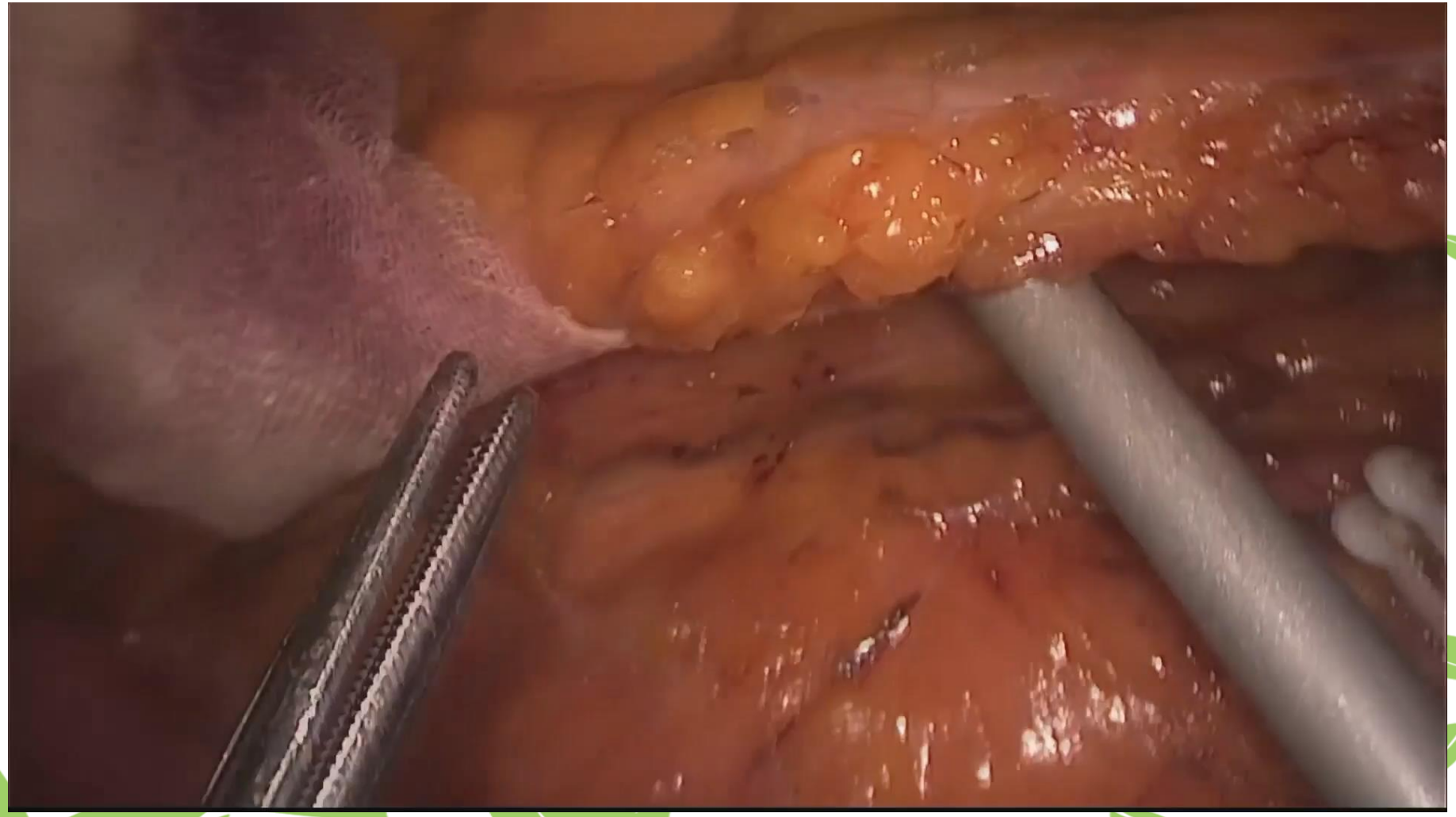
Medical to lateral mobilization

- IMA origin, medial – lateral mobilization



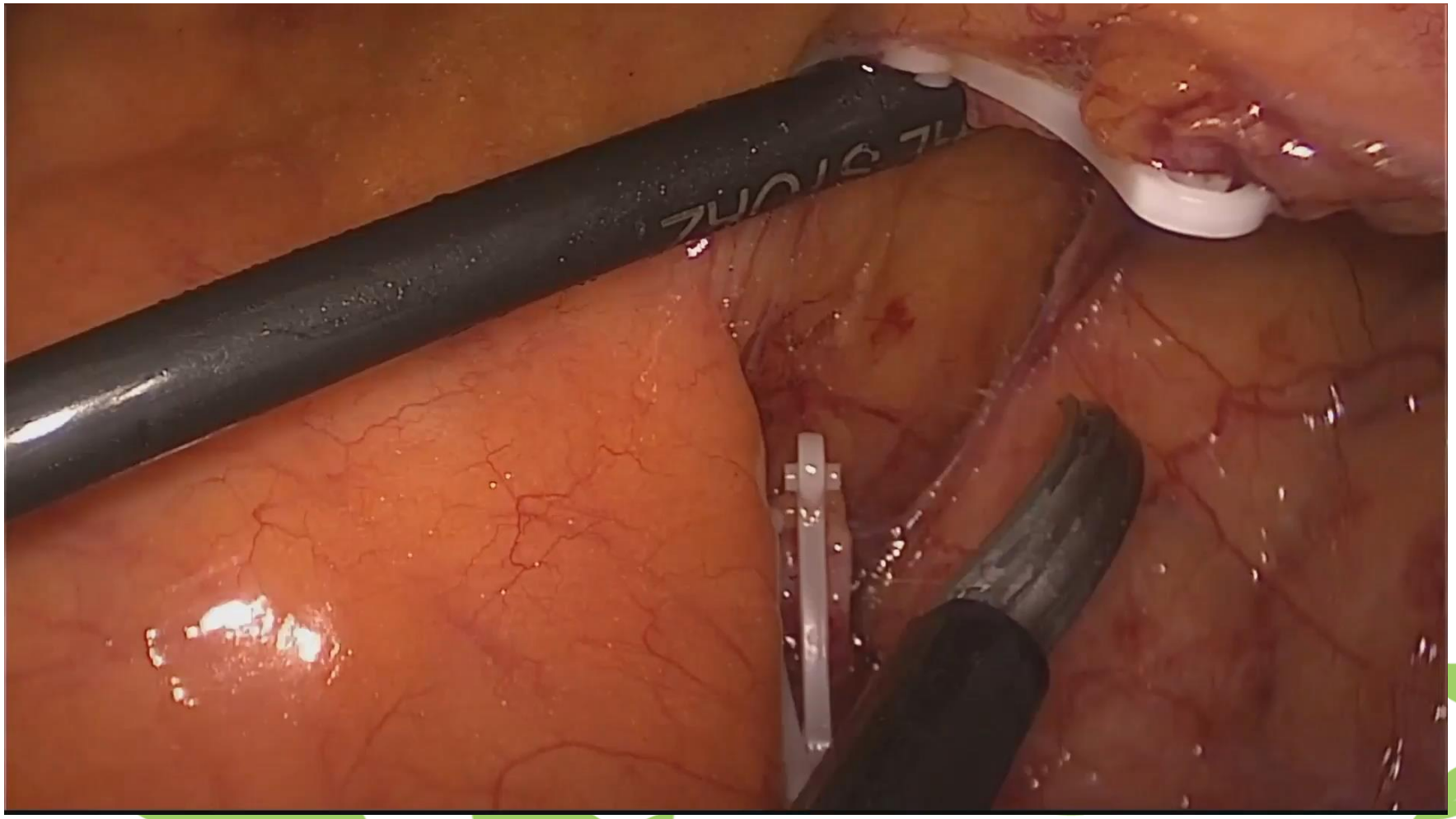
Medical to lateral mobilization

- IMV division close to the DJ junction

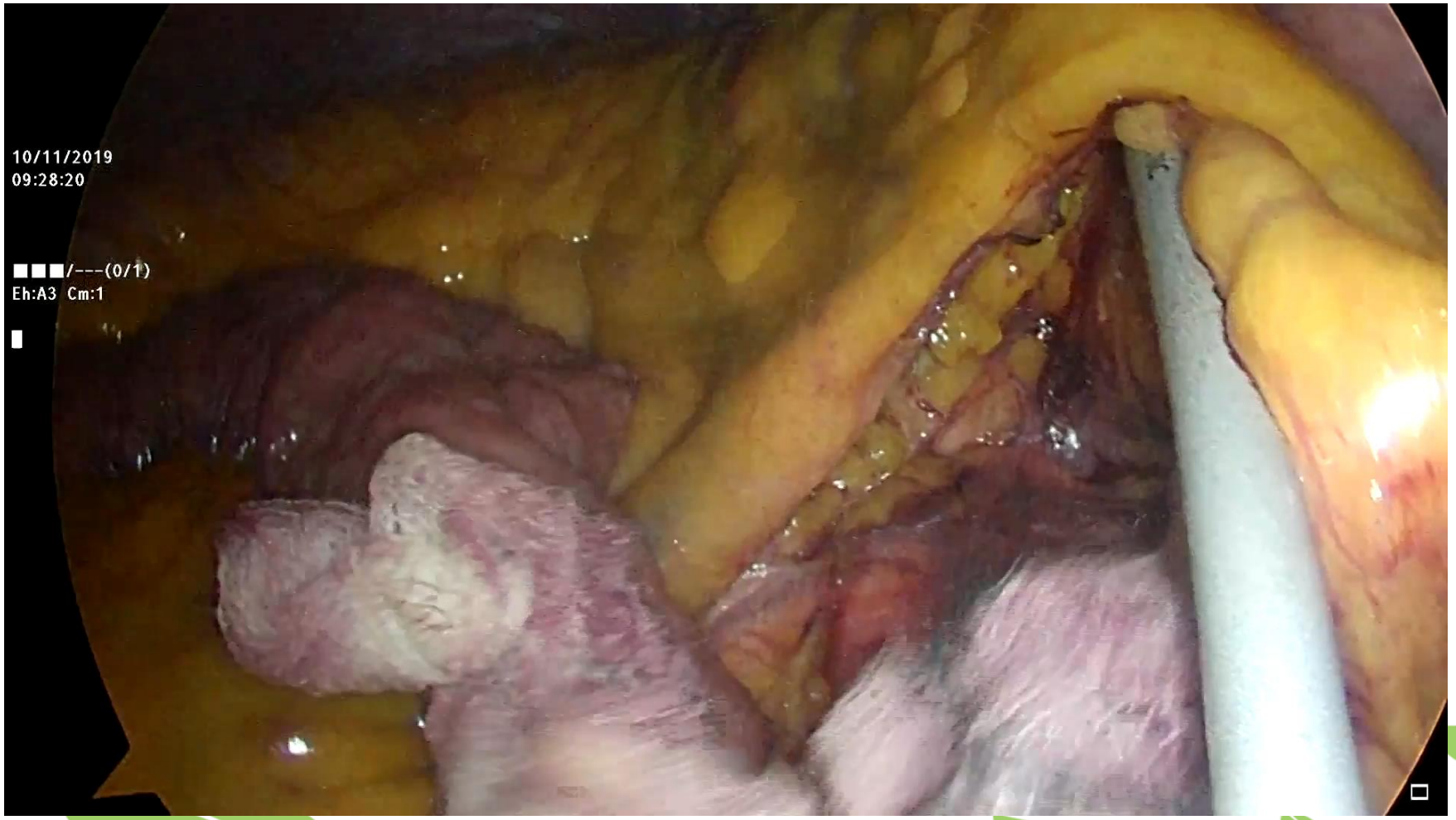


Inframesocolic

- 2 cm lateral to the IMV stump

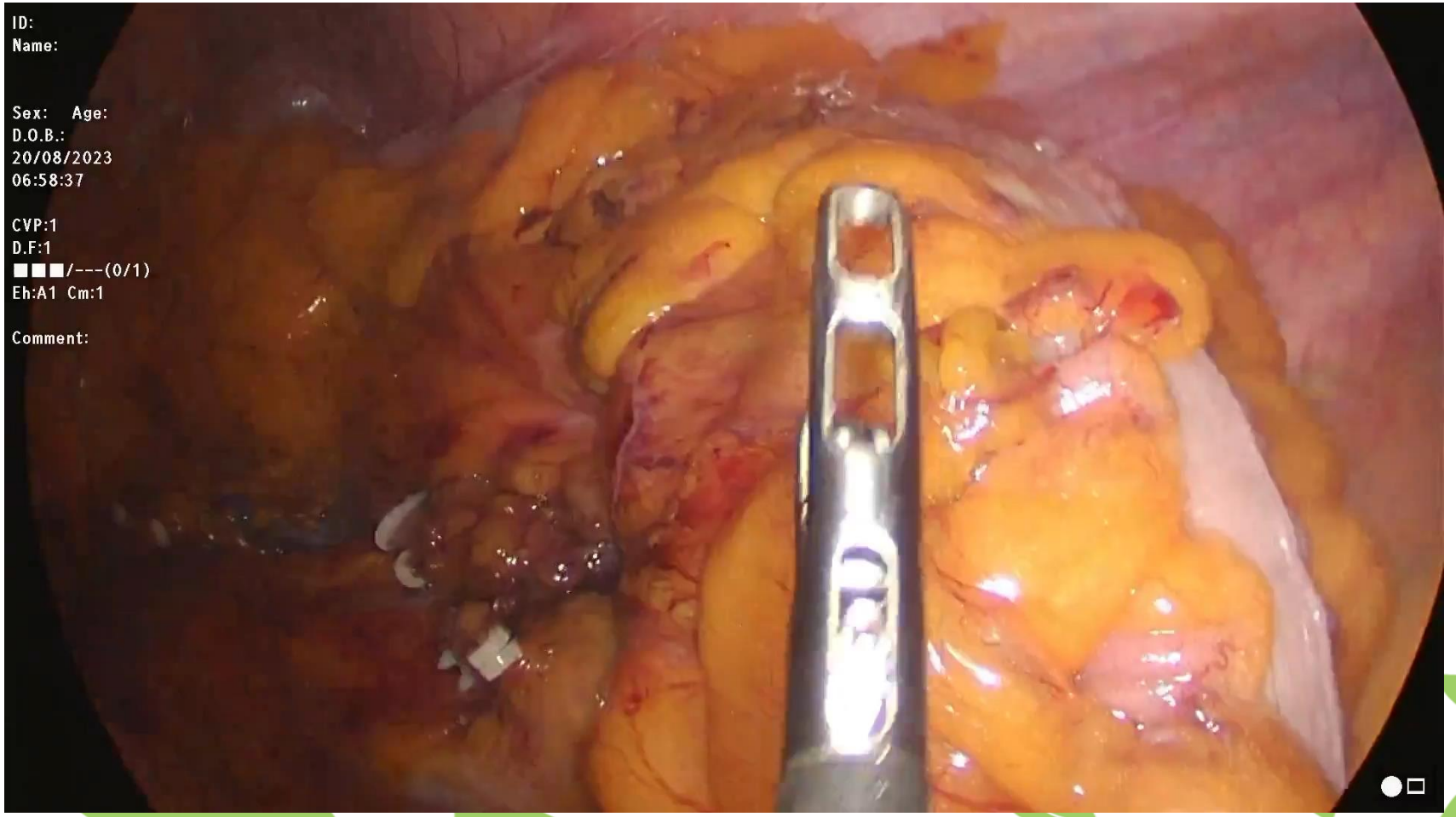


Infra-mesocolic with opening the lesser sac

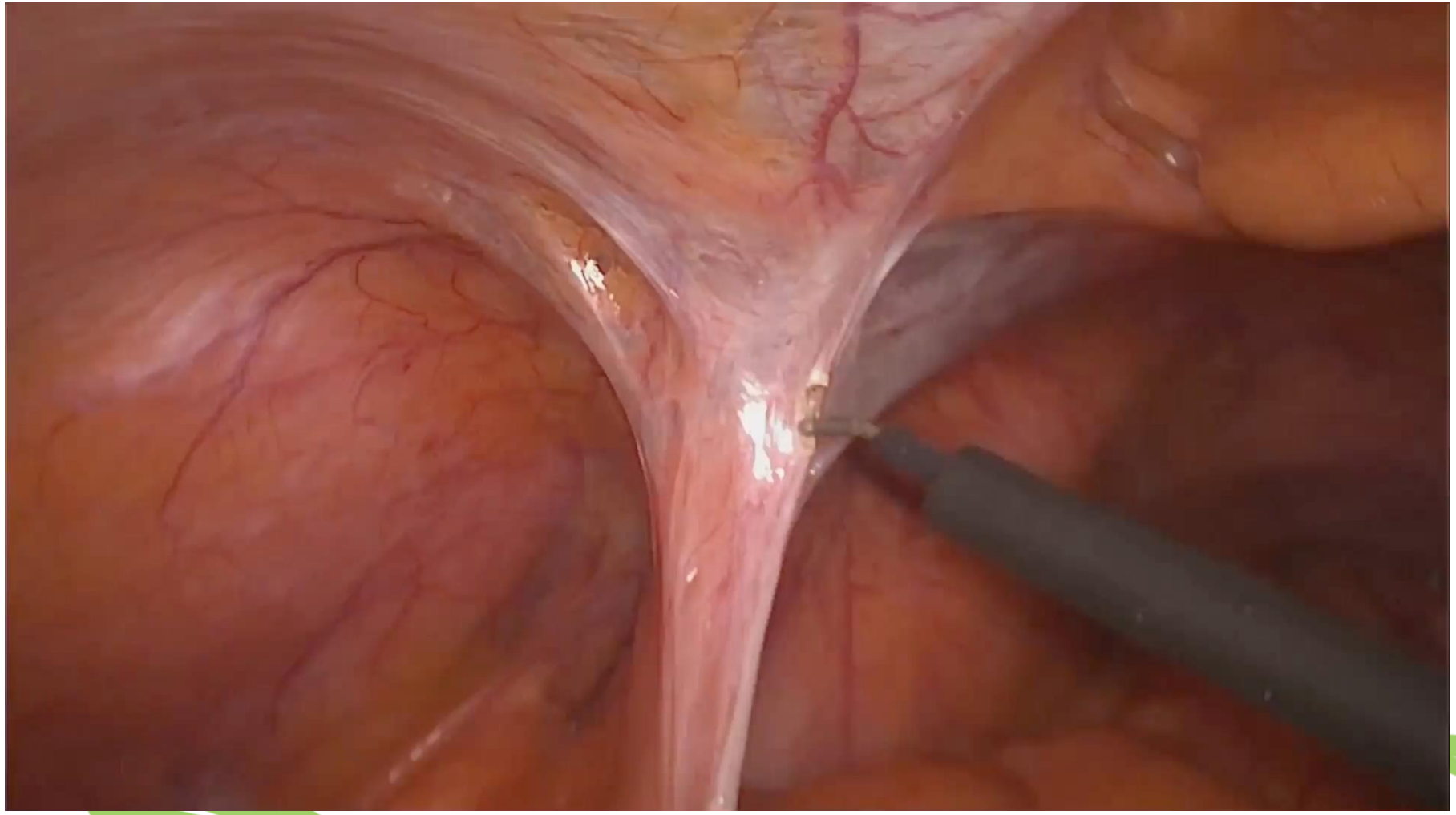


Lateral mobilization

- Traction and counter-traction

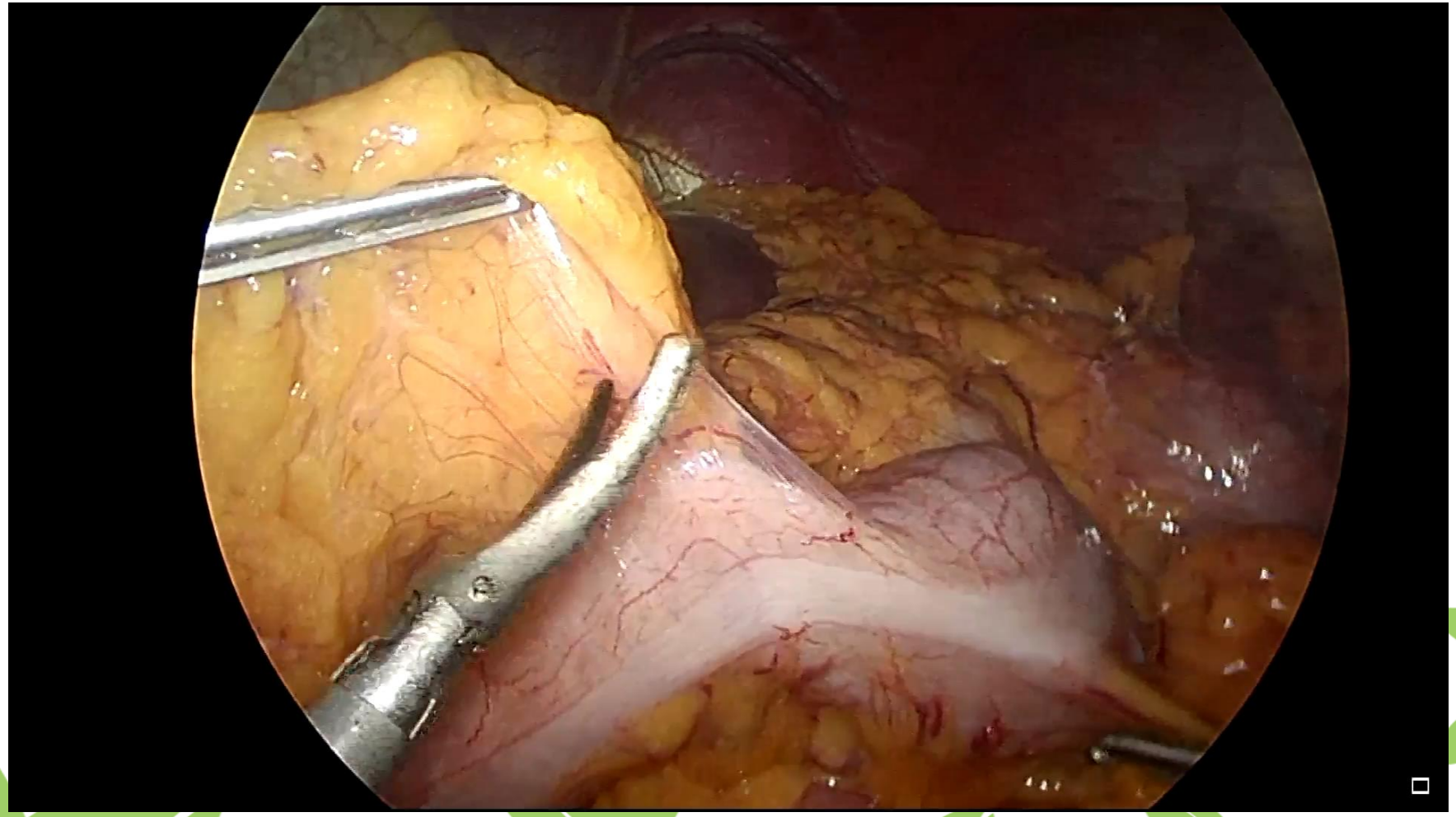


Lateral mobilization



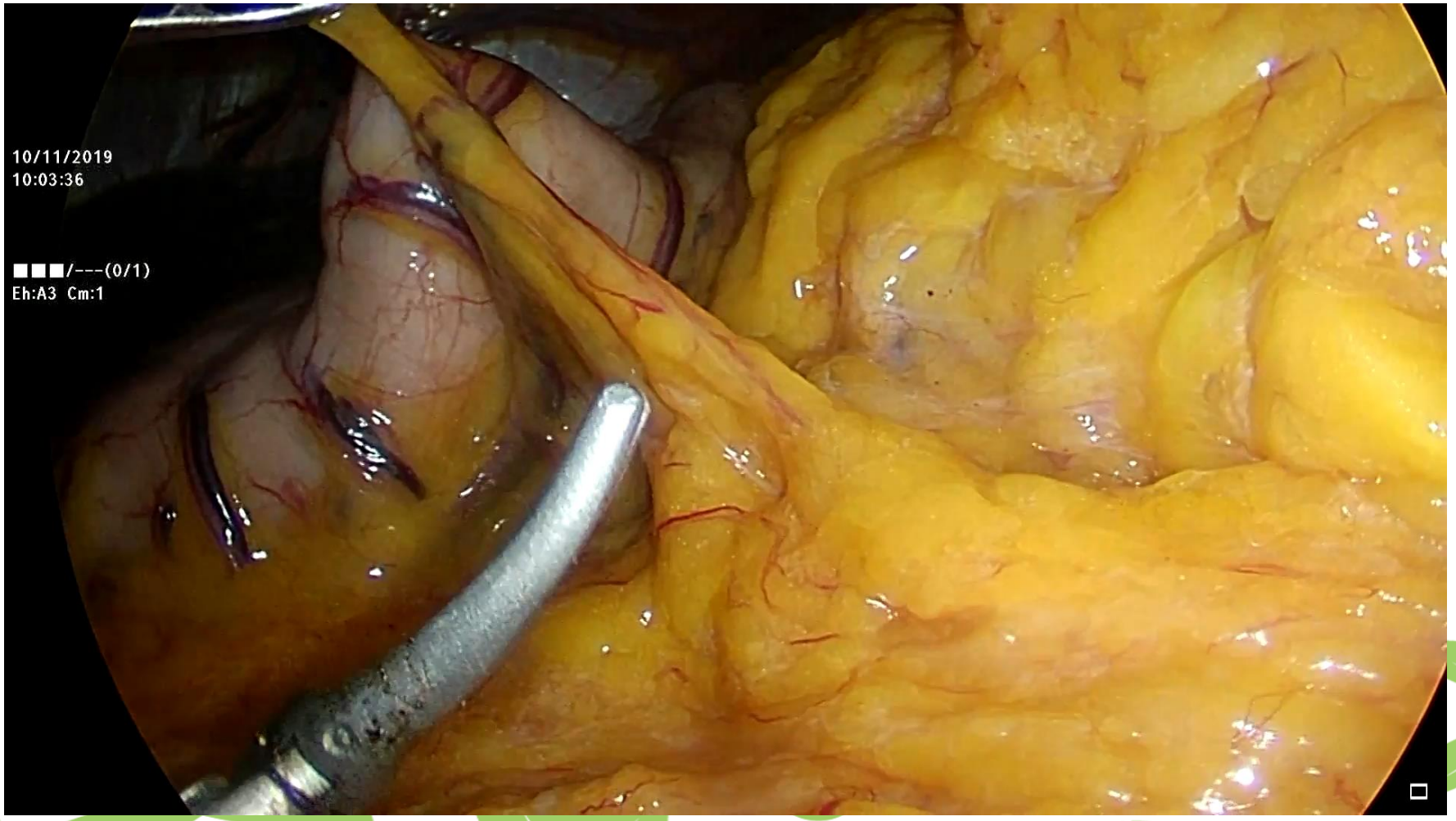
Supramesocolic & Transomentum

- Stay close to the colon
- You may encounter more than one omental layer
- Obliterated lesser sac
- Look for your landmarks (Gauze, bruise, pancreas,,)

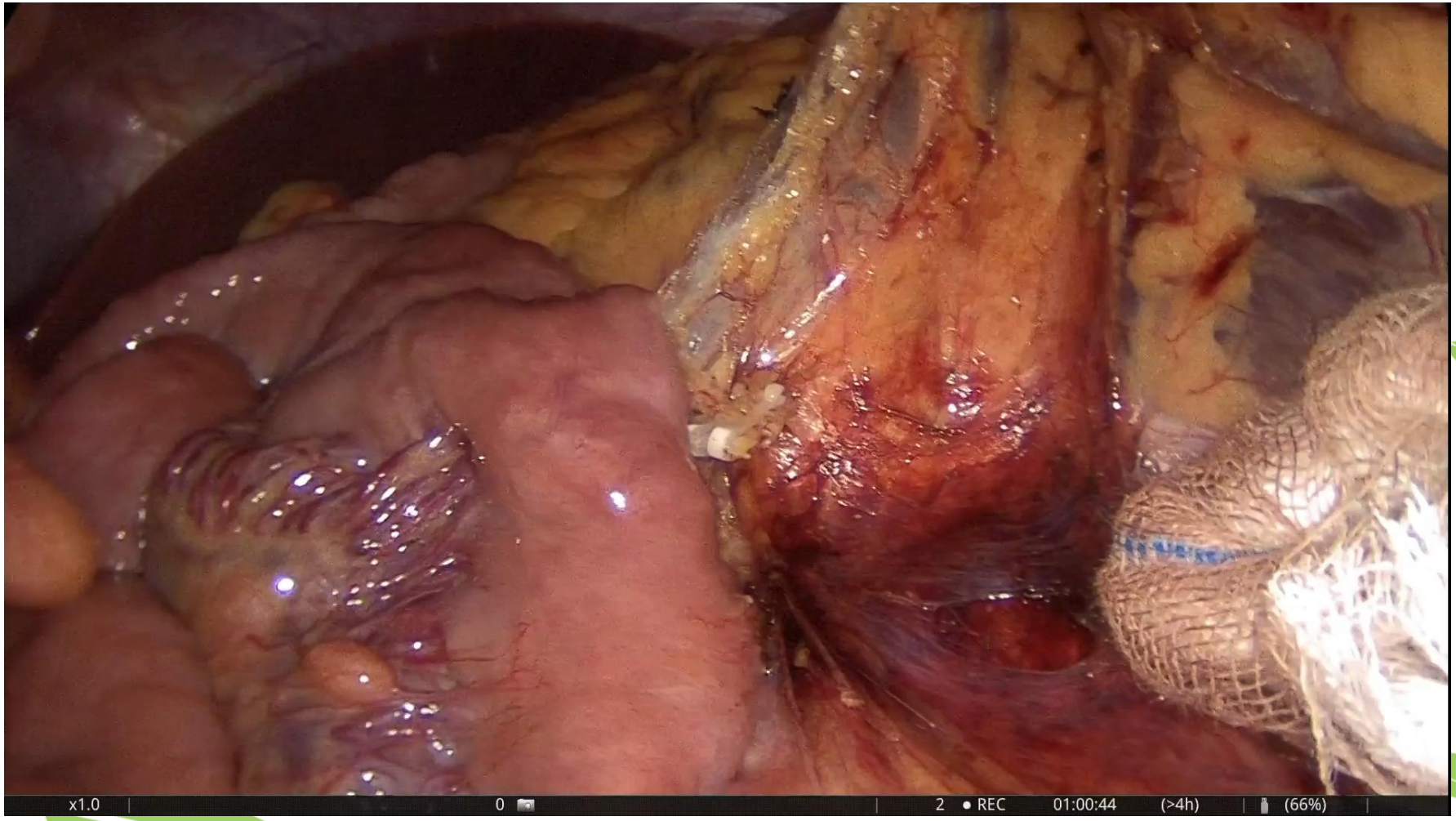


Supramesocolic & Transomentum

- Again



All steps



Pitfalls of splenic flexure mobilization

- Splenic injury
- Pancreatic injury
- Devascularization and ischemia
- Long operative time

Take home message

- A Skill that must be learned by every colorectal surgeon
- Learn different techniques

THANK YOU FOR YOUR ATTENTION