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Annual

Advances and Innovations in Endoscopic Oncology and Multidisciplinary Gastrointestinal Cancer Care

The Case Against Organ Preservation in Esophageal Cancer

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Disclosures

- I do not have any relevant financial relationships with any ineligible companies.

This presentation and/or comments will provide a balanced, non-promotional, and evidence-based approach to all diagnostic, therapeutic and/or research related content.

Introduction

- It’s not that organ preservation does not work…
- **We are not yet good enough at identifying who has achieved a complete response to safely substitute surveillance for surgical resection.**

Is there a case for organ preservation?

- SANO trial, Lancet Oncology, March 2025
- 309 patients in 12 hospitals with locally advanced esophageal cancer received CROSS-type neoadjuvant chemoradiation and had clinical complete response
- Active surveillance compared with standard esophagectomy

Surgery > surveillance

Noninferiority ≠ Oncologic equivalence

- SANO trial noninferiority margin allowed active surveillance to have 2-year survival rate up to 15% lower than surgery
- Still met statistical definition of noninferiority
- Established short-term noninferiority, not long-term oncologic equivalence

Surgery > surveillance

Noninferiority ≠ Oncologic equivalence

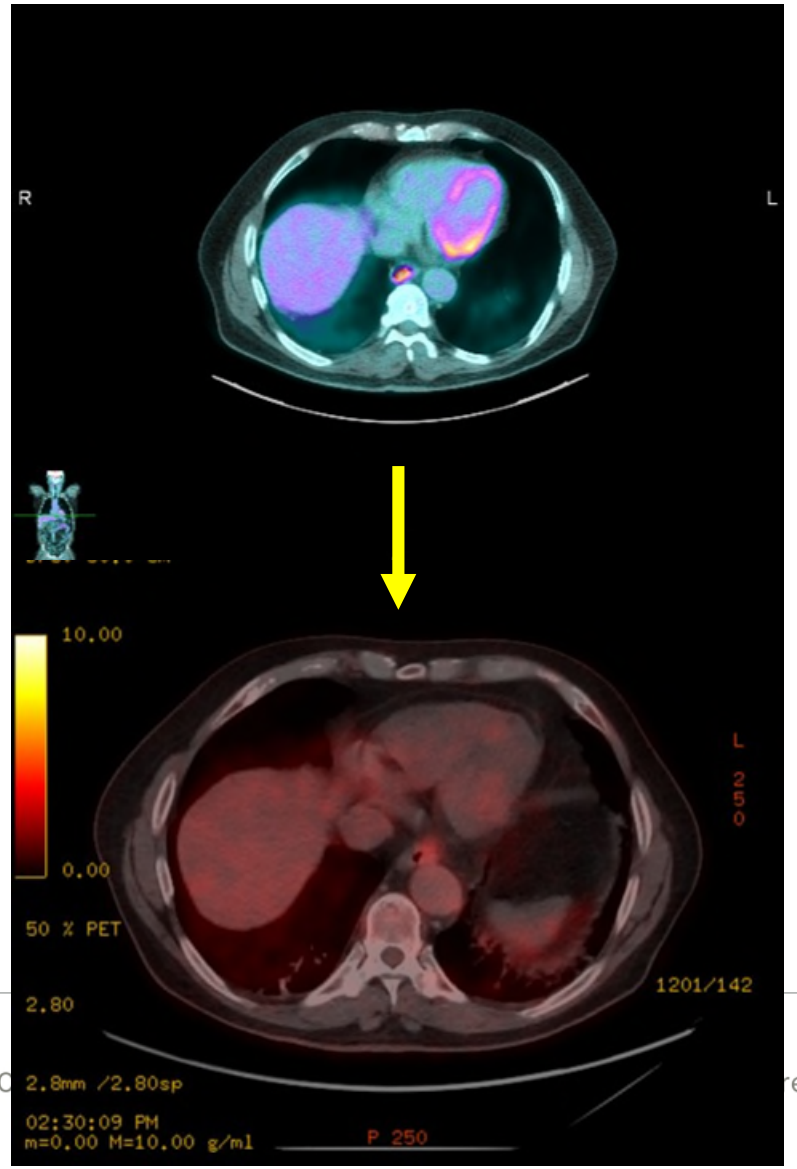
- Are we asking the right question?
- Are the curves similar at 2 years?

  or

- Did delaying removal of residual locoregional disease permit progression that became incurable later?

Surgery > surveillance

- Case: 74M with cT1bN0 GEJ adenocarcinoma
  - EMR: HG dysplasia present on edges
  - Post EMR stricture → multiple dilations
  - EGD: recurrent adenocarcinoma
  - Scheduled/cancelled surgery
  - EMR + cryoablation
  - EGD: recurrent adenocarcinoma + **positive perigastric lymph node (not seen on PET-CT)**
  - *Last note: weight loss, aspiration 2/2 stricture, feeding tube*



Surgery > surveillance

Noninferiority ≠ Oncologic equivalence

- Negative tests cannot prove absence of viable cancer
- Biopsies evaluate only part of treated tumor bed → sampling error
- Response assessment must address regional lymph nodes

Surgery > surveillance

cCR ≠ pCR

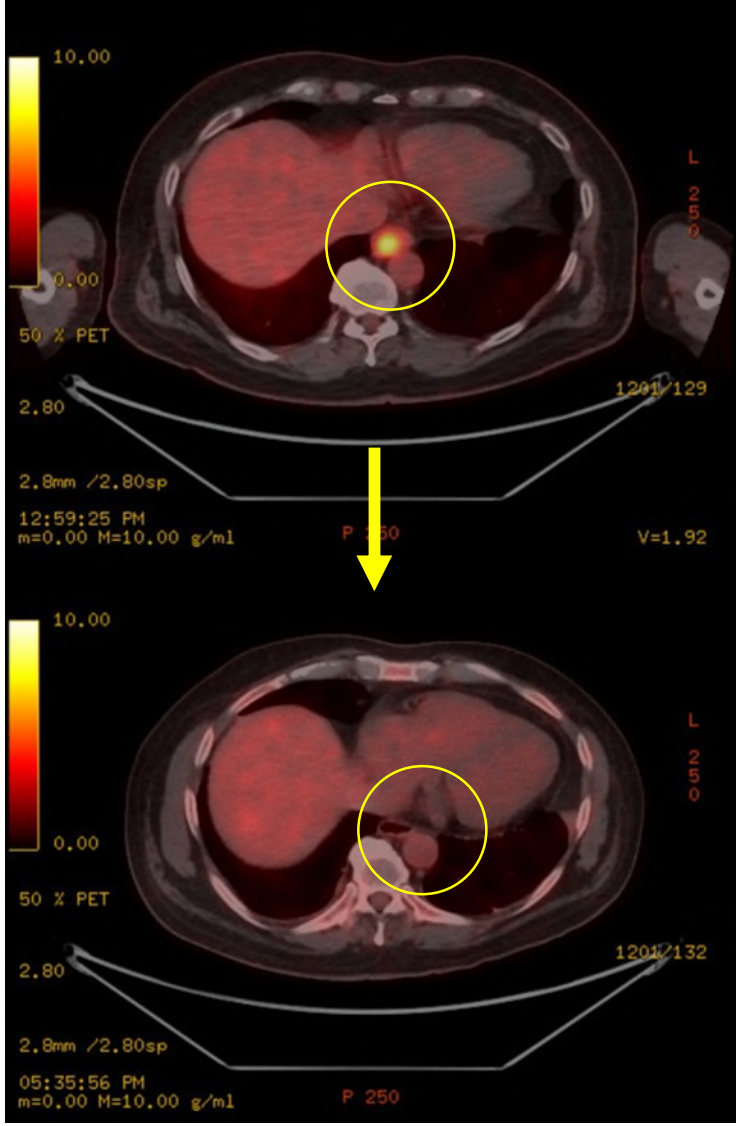
- Major therapeutic decision based on ability to determine whether viable cancer remains
- But do we have the tools for it?
- Limitations of PET-CT, EUS, endoscopic biopsies (superficial layers)

Surgery > surveillance

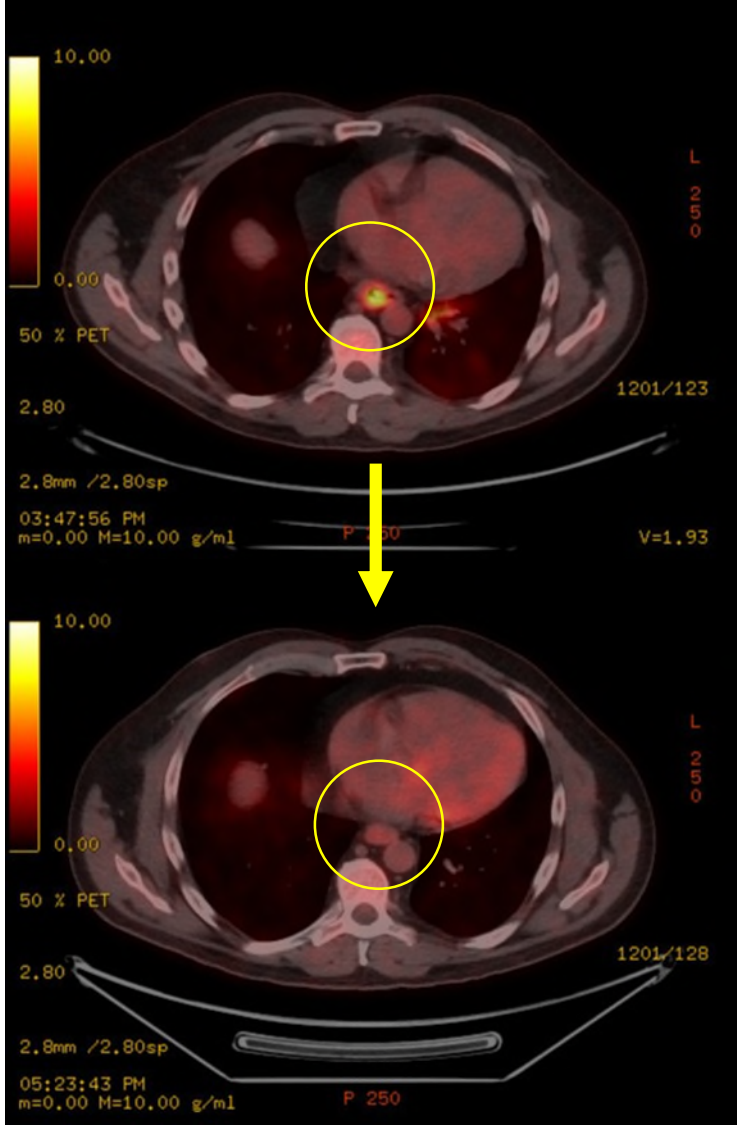
cCR ≠ pCR

- Patient 1:
- 56m with **cT2N1** distal esophageal adenocarcinoma
- Completed FLOT x 8 cycles

- Patient 2:
- 54M with **cT2N0** distal esophageal adenocarcinoma
- Completed FLOT x 7 cycles (neuropathy)



Patient 1: **cT2N1**, SUV 12.5 →2.9
(bx-proven peri-gastric LN resolved)



Patient 2: **cT2N0**, SUV 8.6 → 3.6

Surgery > surveillance

cCR ≠ pCR

- Patient 1:
- cT2N1 → ypT0N0
- Treatment effect present
- Fibrous **tumor bed** identified
- 23 lymph nodes negative

- Patient 2:
- cT2N0 → ypT1bN0
- Treatment effect present
- **Rare** malignant cells in mucosa & submucosa within 1.4-cm **tumor bed**
- 20 lymph nodes negative

Surgery > surveillance

Clear mucosa ≠ clear lymph nodes

- Esophageal cancer is a lymphatic disease
  - Endoscopy: Is there tumor in the esophagus?
  - Esophagectomy: Is there tumor anywhere in the locoregional nodal basins?
- Nodal disease can remain despite tumor response
- Occult nodal disease remains a major blind spot

Surgery > surveillance

Study	Patients	Lymph node yield	Survival finding
Peyre et al. (2008)	2,303	≥23 nodes	Improved 5-year overall survival
Rizk et al. (2010)	4,627	Stage-dependent (10–30+)	Higher yield associated with improved survival
Groth et al. (2010)	4,882	≥30 nodes	Lower adjusted mortality
Visser et al. (2017)	2,698	≥15 nodes	Improved overall survival (HR 0.77)
2018 meta-analysis	26 studies	Higher vs. lower yield	Improved overall survival (HR 0.81)
2020 meta-analysis	19,528	Higher vs. lower yield	Improved overall survival (HR 0.87)

Higher nodal yield is associated with better survival across large cohorts and pooled analyses.

Observational associations; not proof of causality. Thresholds, neoadjuvant treatment, and study populations differ. Meta-analyses overlap with primary studies.

Surgery > surveillance

Surgery = Data

- Esophagectomy isn't simply removal of primary tumor…
- Surgery is the ultimate diagnostic test
  - ypT
  - ypN
  - # positive LNs
  - Tumor regression
  - Margins
  - True pathologic response

→ Both local control and definitive pathologic staging → Determine adjuvant therapy and prognosis

Surgery > surveillance

Surgery = Data

- Organ preservation isn’t just avoiding a major operation…
- Organ preservation is avoiding pathologic staging
    - Matters more as systemic therapy becomes increasingly driven by biomarkers, etc

Surgery > surveillance

SCC ≠ Adenocarcinoma

- Data for definitive nonoperative treatment historically strongest in SCC
- Different from Western distal esophageal/GEJ adenocarcinoma population
- Are we importing an organ-preservation paradigm developed partly from SCC into a different disease?

Surgery > surveillance

QoL vs Oncologic Outcome

- True: Esophagectomy is life-changing
    - Dietary, lifestyle, etc
- SANO provides prospective evidence of early QoL advantages from surveillance
    - Most differences diminished with time

Surgery > surveillance

QoL vs Oncologic Outcome

- Does QoL cost outweigh oncologic cost?
- Is QoL guaranteed by “organ preservation?”
    - Repeat endoscopies, strictures requiring dilations, radiation from serial scans
    - ANXIETY
- QoL affected by surgical approach, surgeon experience, modern techniques, etc

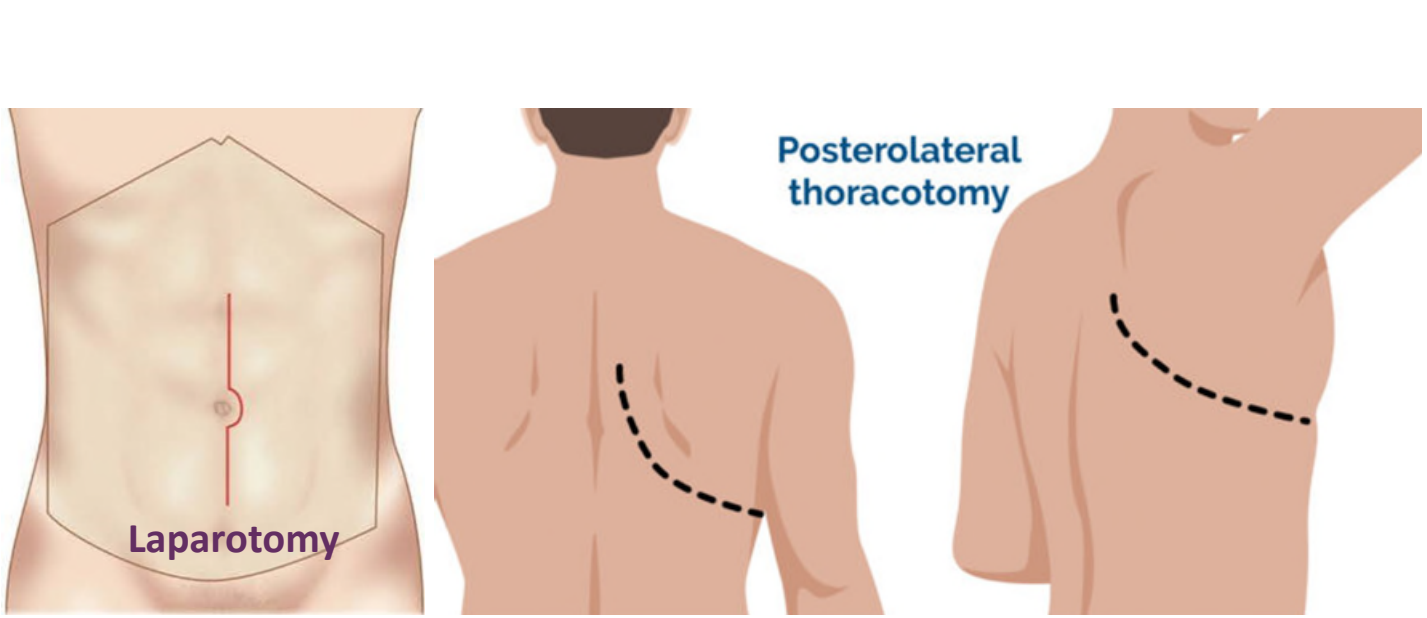
Surgery > surveillance

Modern esophagectomy

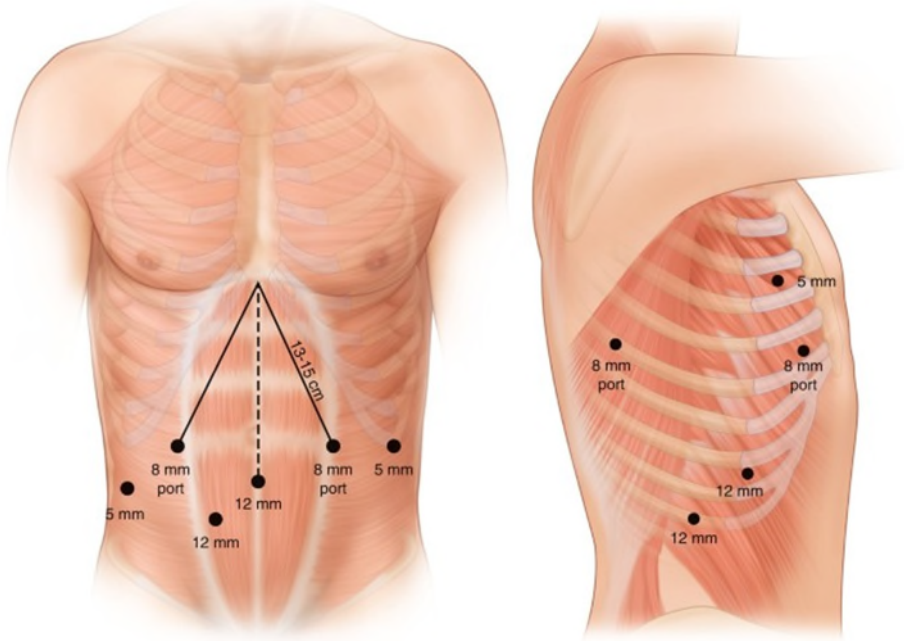
- Esophagectomy is not necessarily the surgery of 20 years ago…
  - Safer
  - Faster
  - Less invasive
  - More experience
  - Better tools for pain control i.e. cryoablation of intercostal nerves > epidurals

Surgery > surveillance

Modern esophagectomy



Open surgery

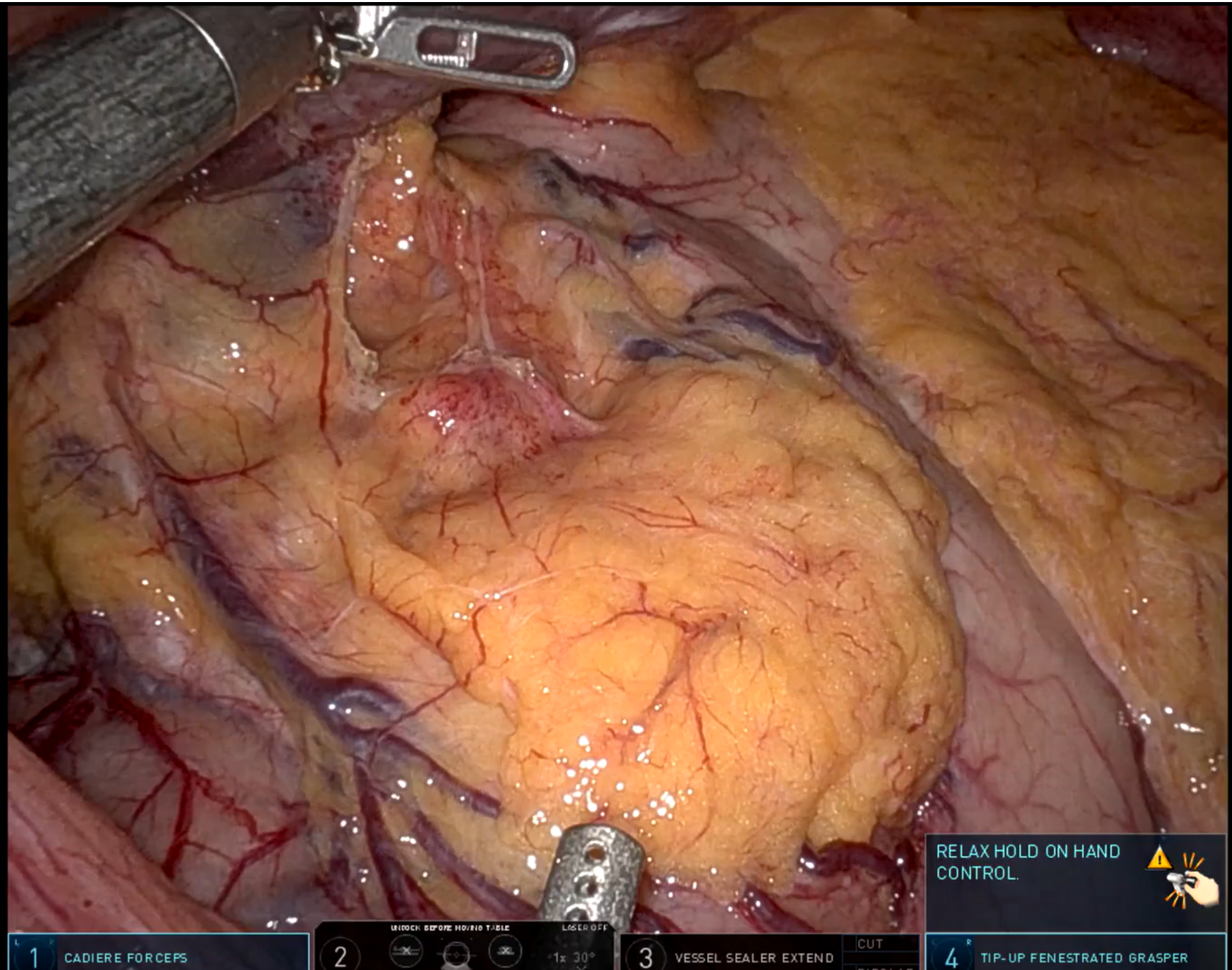


Minimally invasive surgery

Surgery > surveillance

Modern esophagectomy

- Robot Ivor-Lewis esophagectomy
- Part 1: Abdominal


RELAX HOLD ON HAND CONTROL.
1 CADIERE FORCEPS
2
UNDOCK BEFORE MOVING TABLE
LASER OFF
1x 30°
3 VESSEL SEALER EXTEND
CUT
4 TIP-UP FENESTRATED GRASPER

Surgery > surveillance

Modern esophagectomy

- Robot Ivor-Lewis esophagectomy
- Part 2: Thoracic


6:41 PM
REC
1
1
Cadiere Forceps
Samine Ravanbakhsh
2
30°
OFF
1.0x
3
Long Bipolar Grasper
Samine Ravanbakhsh
4
Tip-Up Fenestrated Grasper
Samine Ravanbakhsh
Do not move the operating table while docked.
OK
Endoscope
L
R

Thank you



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References

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- SANO quality-of-life analysis: 2025-2026