

# Hiatus Hernia: Understanding the underlying anatomy, symptoms and laparoscopic repair

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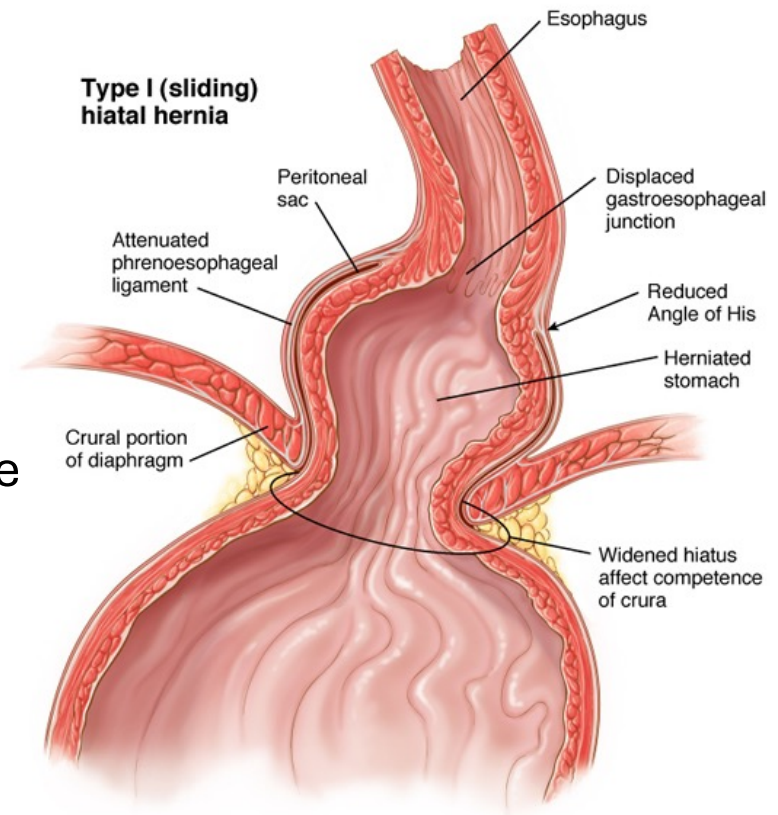
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# Hiatus hernia is the principal cause of Structural GORD:

2 key underlying pathologies need to occur for a Hiatus hernia to develop:

1. Widening of the hiatal opening in the diaphragm
2. Attenuation of the Phreno-Oesophageal ligament

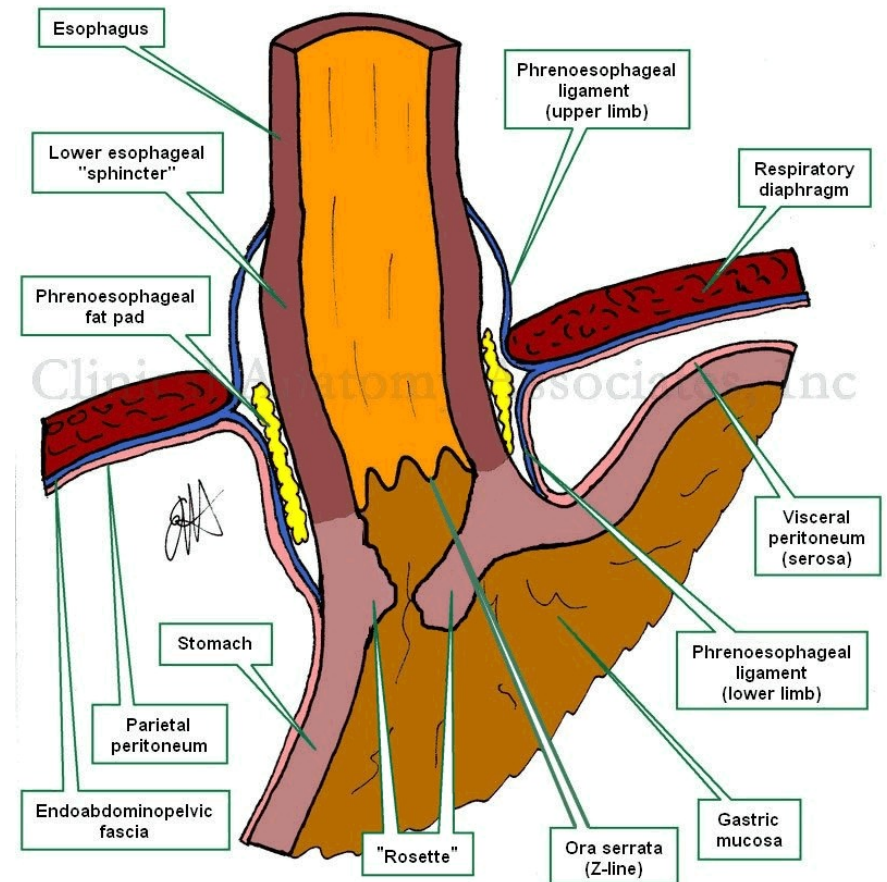


## Structural GORD:

Hiatus hernia directly causes failure of anti-reflux mechanism due to:

1. loss of the Angle of His
2. Loss of an intra-abdominal length of oesophagus
3. Loss of the Extrinsic components of the lower oesophageal sphincter mechanism

### Normal Hiatus

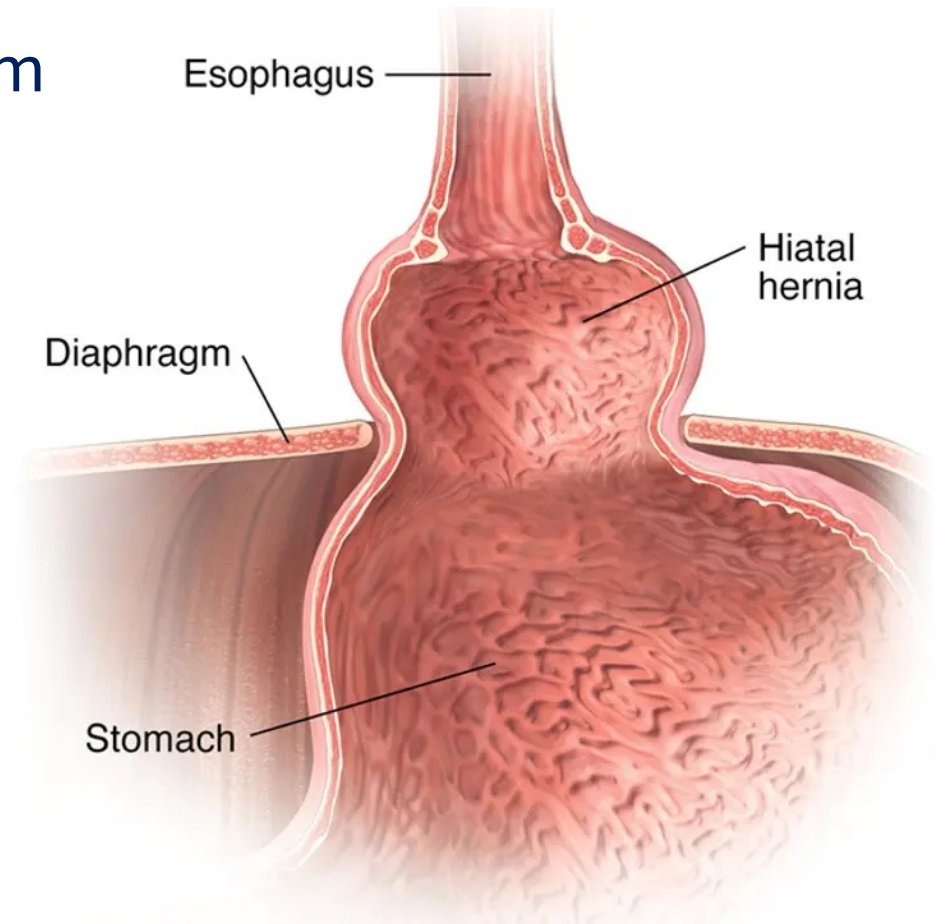


# Structural GORD: Clinical Spectrum

## 1. Small Hiatus Hernia:

*Classic reflux symptoms-*

- Heartburn
- regurgitation
- belching

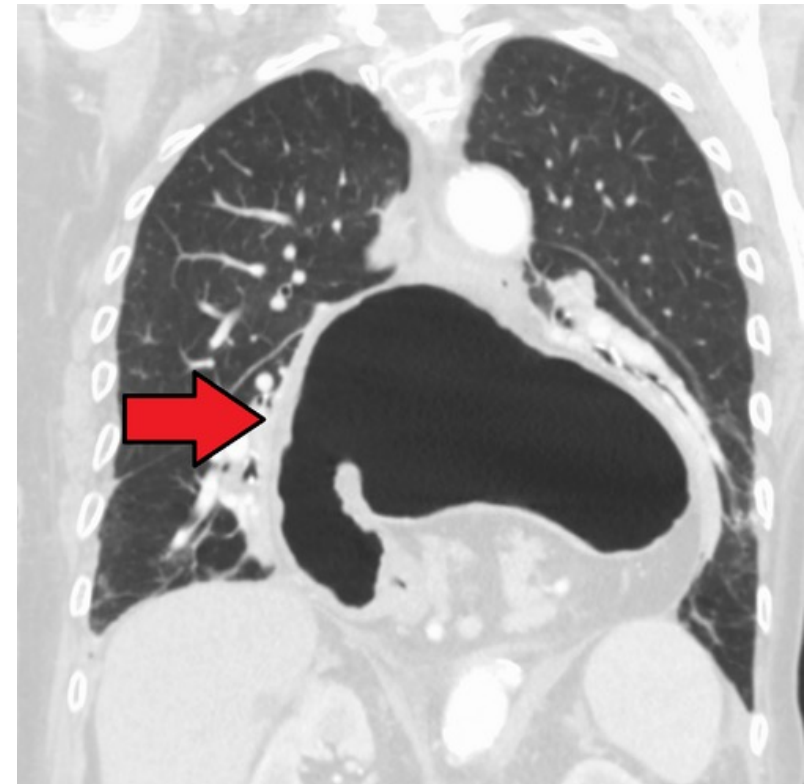


# Structural GORD: Clinical Spectrum

## 2. Large hiatus hernia:

(AKA the Intra-thoracic Stomach)

- Dysphagia and swallowing difficulties
- Shortness of breath on exertion
- Iron deficiency anaemia
- Gastric volvulus and ischaemia



# Structural GORD: hiatus hernia

→ Surgery is first-line

especially for:

- Large hernias
- Mechanical symptoms
- Anaemia (Cameron ulcers)
- Respiratory compromise

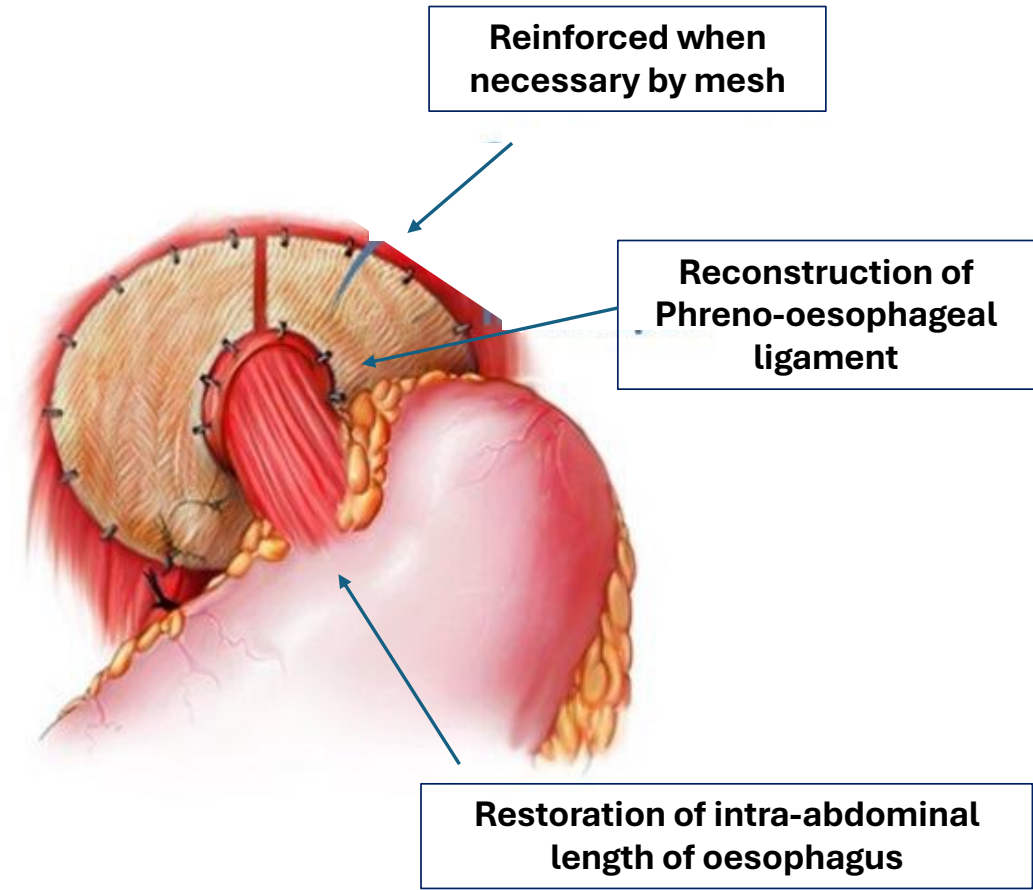
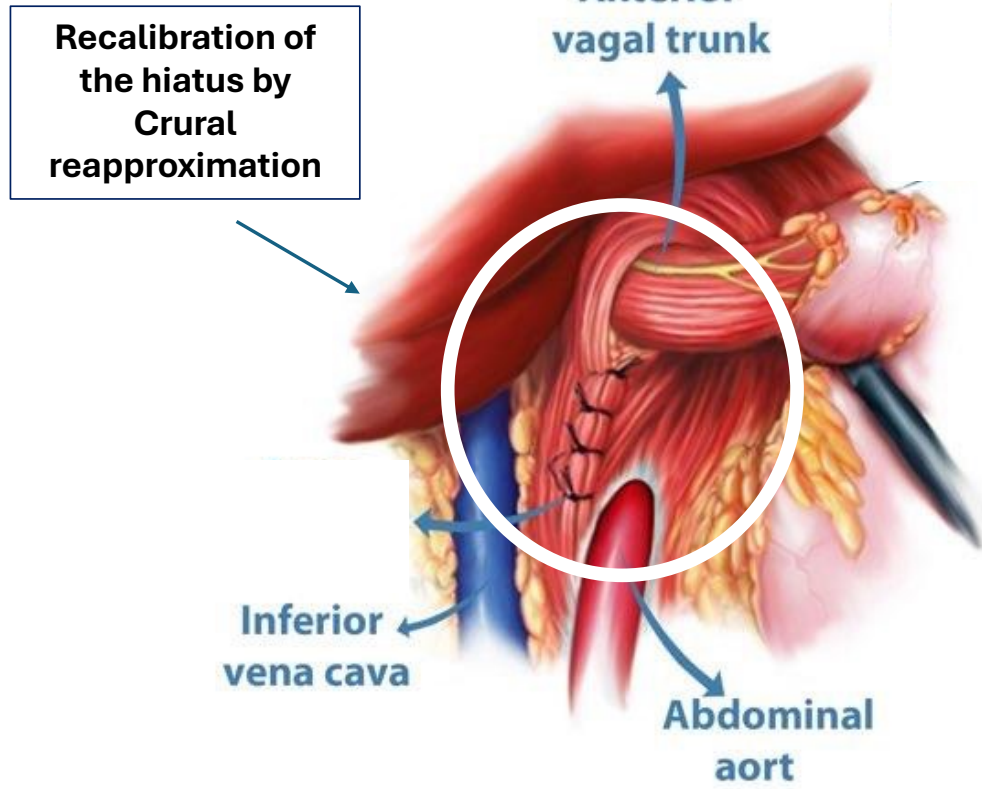
Key message:  
This is due to an abnormal anatomy and deserves corrective intervention.

# Structural GORD:

## *Principles of surgical correction:*

1. Mobilisation of gastro-oesophageal junction
2. Return stomach and distal oesophagus to the correct infra-diaphragmatic position
3. Recalibration of hiatal diameter: suture tightening of crural +/- bio-absorbable mesh reinforcement
4. Reconstruction of the Phreno-Oesophageal Ligament
5. Partial Fundoplication to enhance antireflux valve

# Hiatal repair:

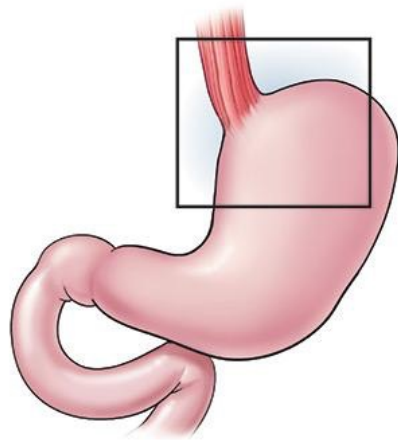


# Role of Fundoplication in Hiatal repair:

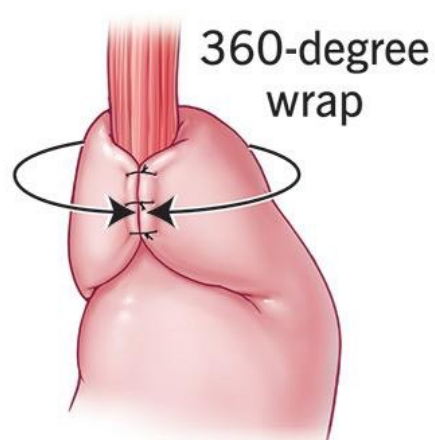
Enhances the function of the antireflux mechanism:

1. Restores the **Angle of His**
2. Reconstitutes the *Extrinsic Components* of the Lower Oesophageal sphincter complex and enhances LOS tone
3. Transmits intragastric pressures to the lower oesophagus

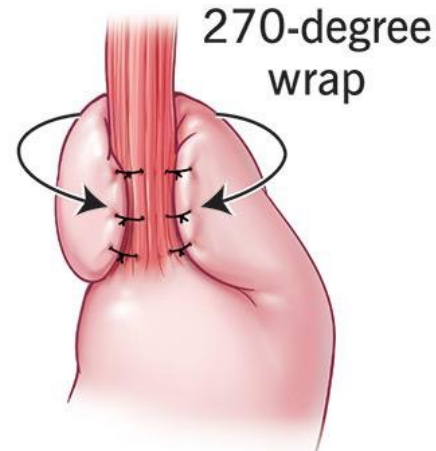
## Types of Fundoplication:



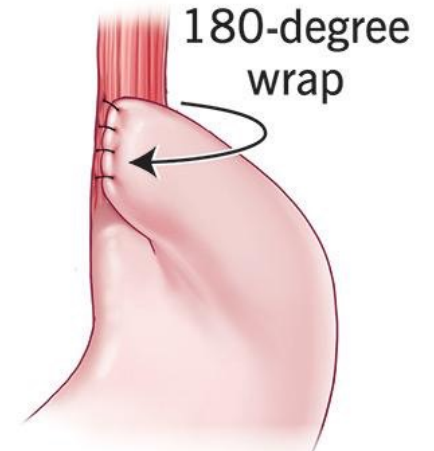
Typical stomach



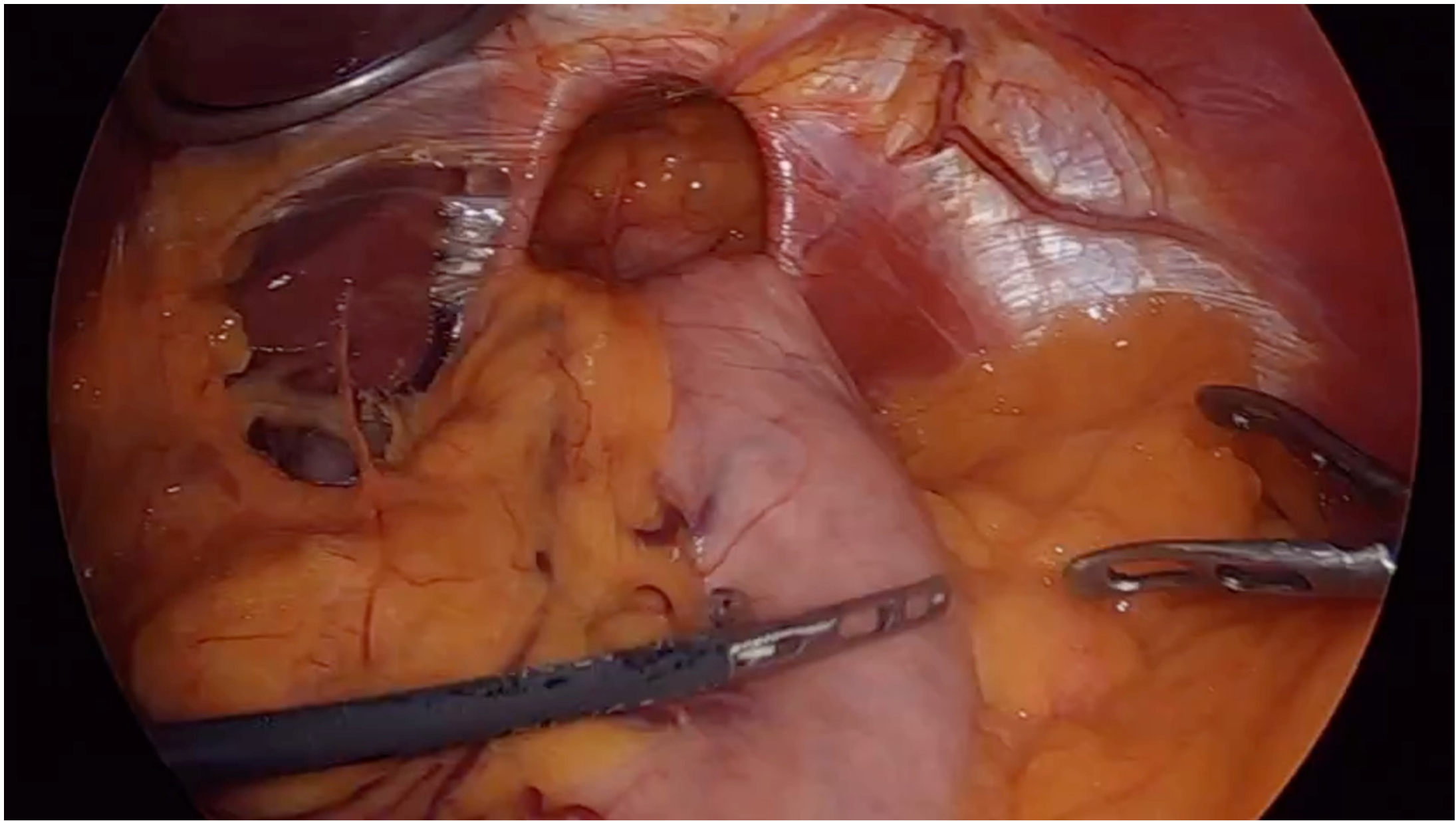
Nissen

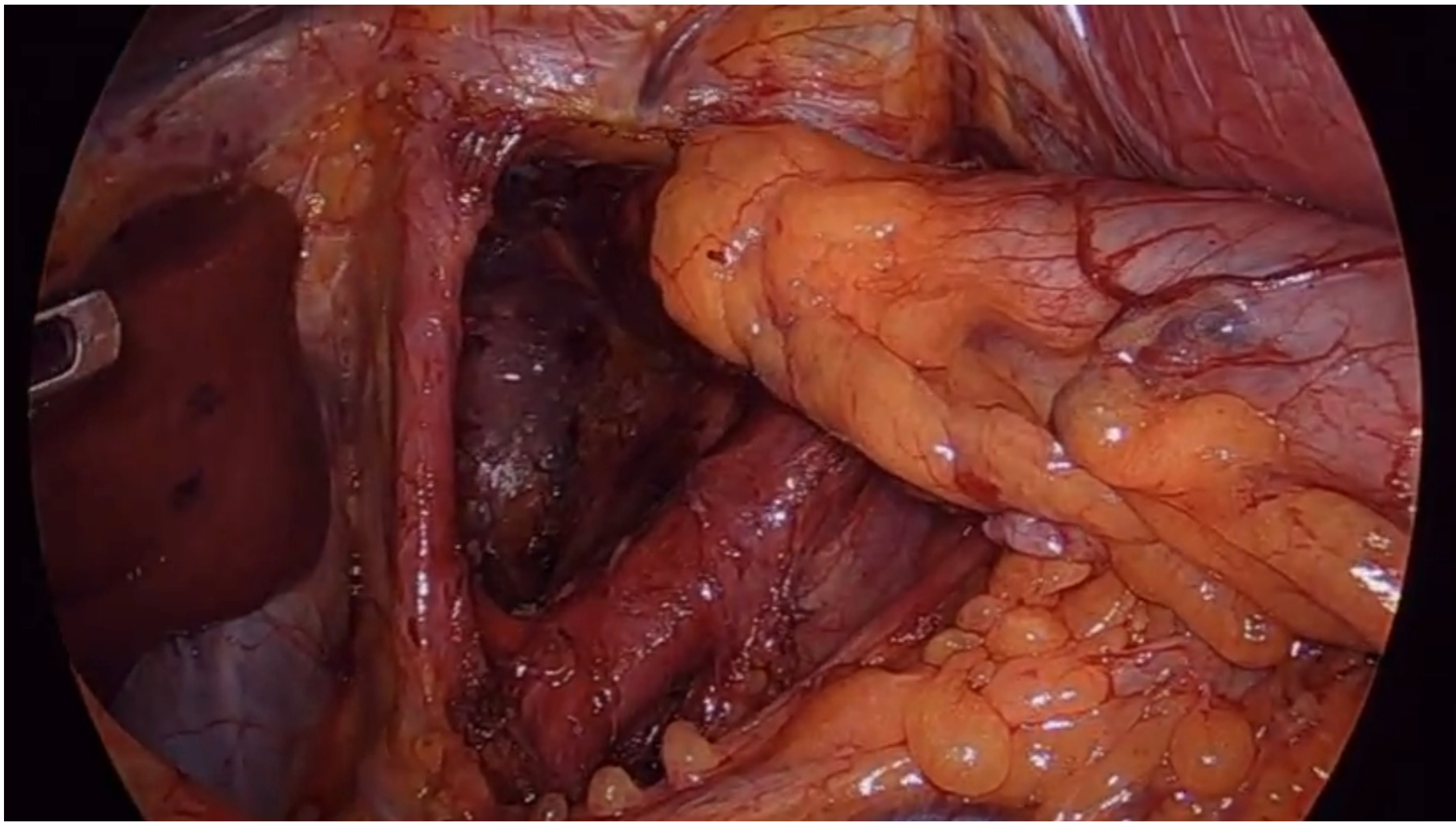


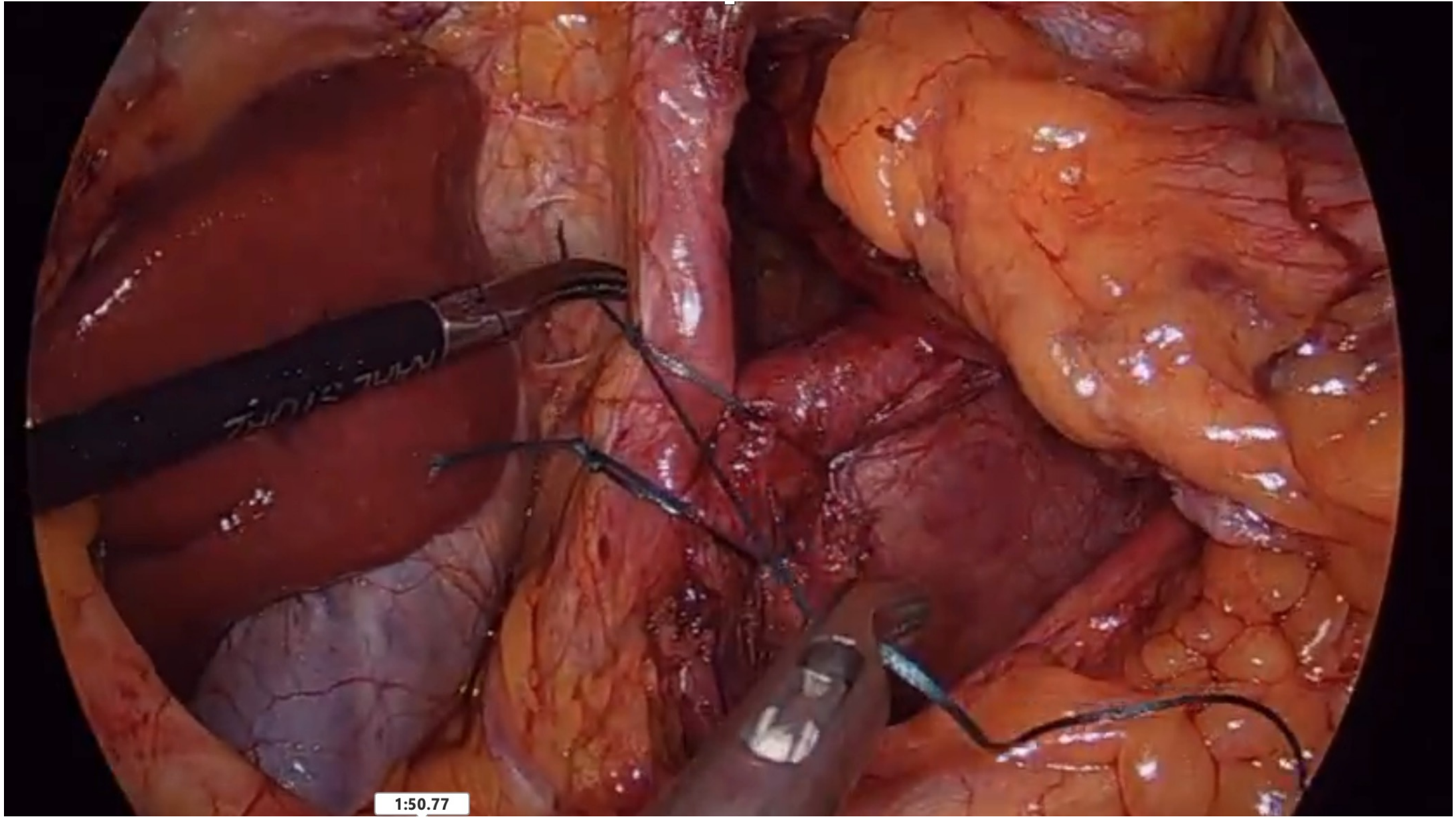
Toupet

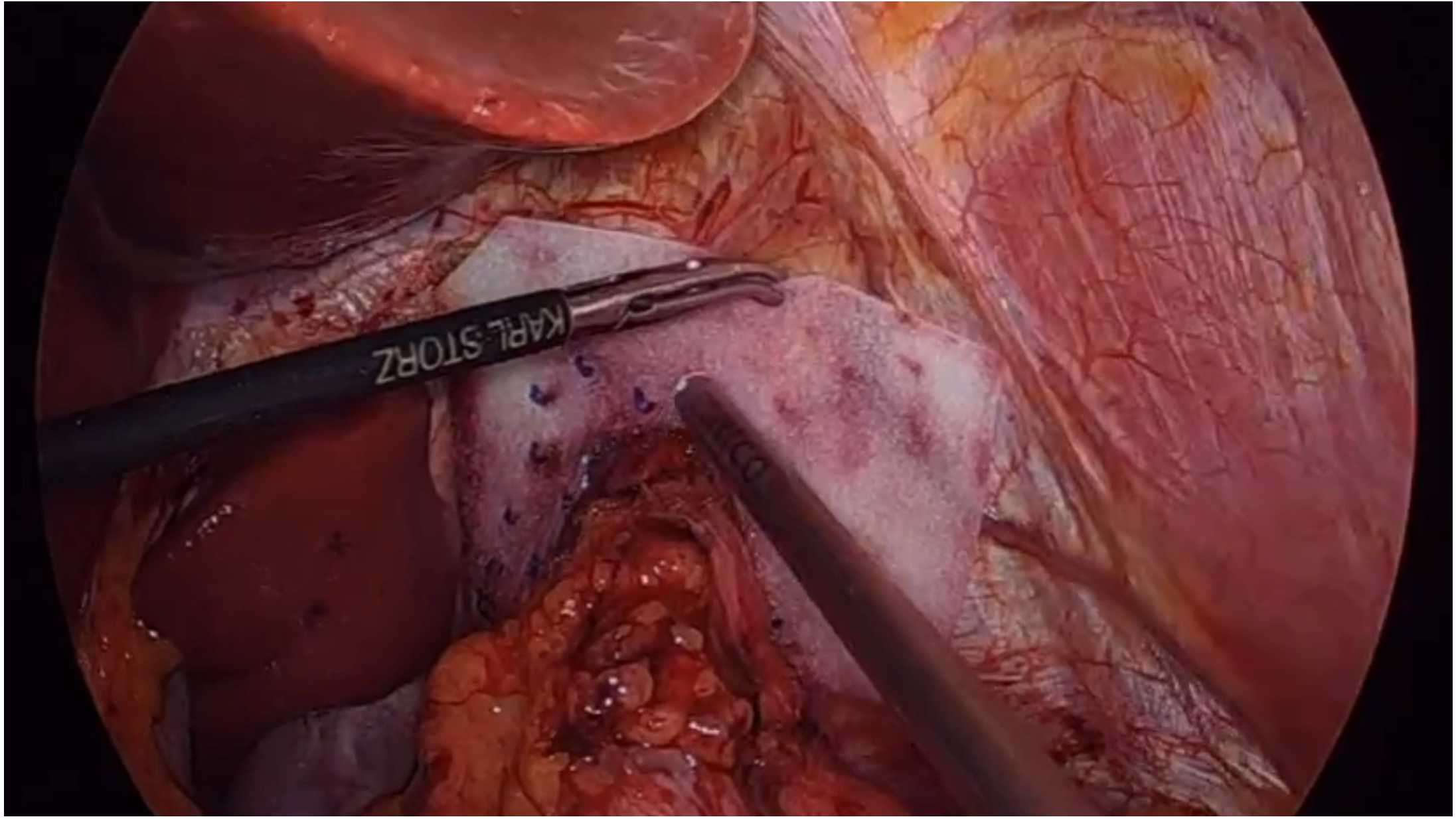


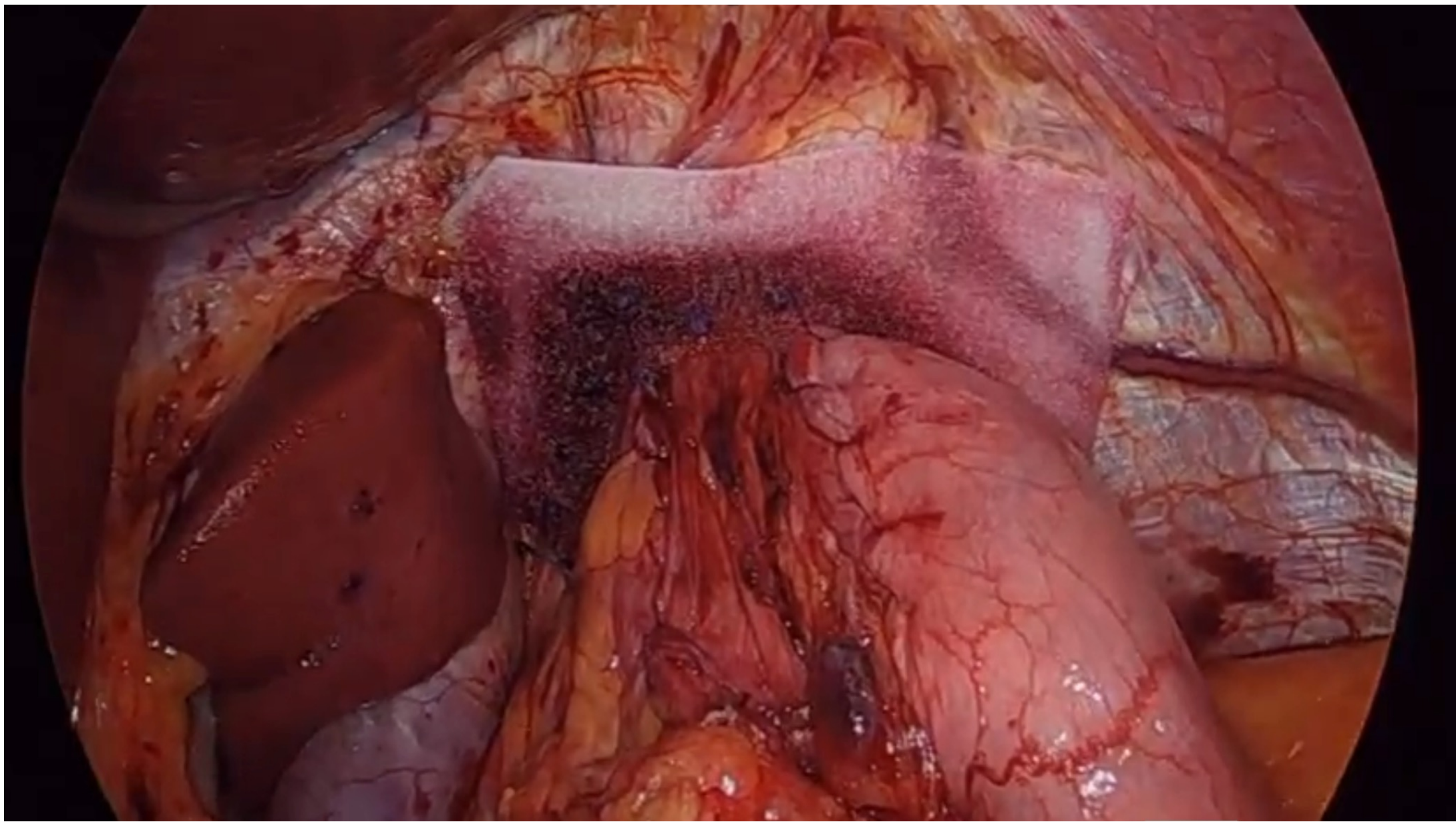
DOR anterior











## When hiatal repair alone is not enough

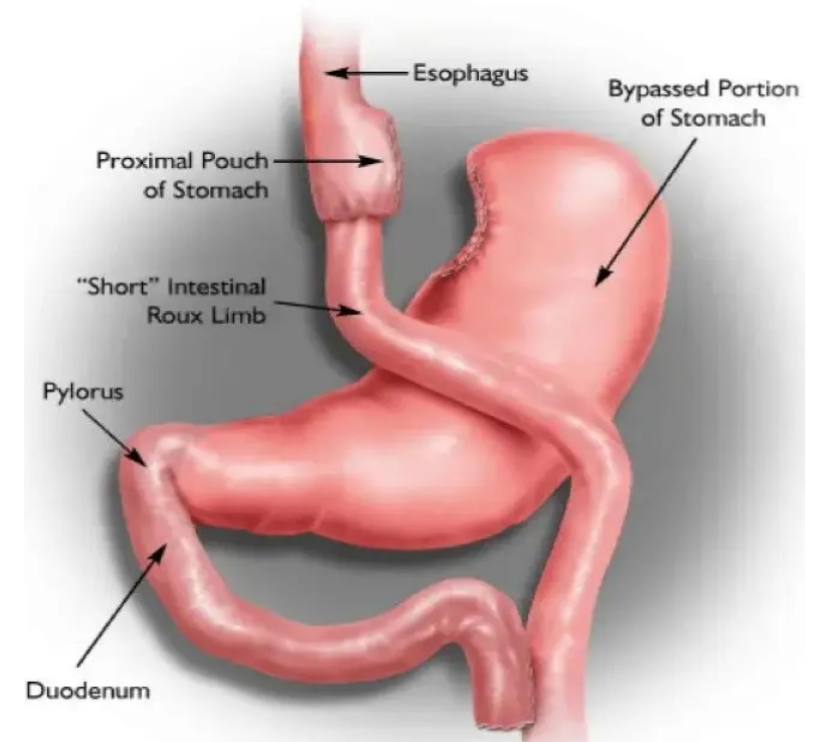
### Roux-en-Y gastric bypass:

#### Indications:

- Failed prior fundoplication
- Severe dysmotility
- Concomitant Obesity

#### Concept:

→ *Diverts* all gastric, biliary and enteric contents further downstream away from oesophagus



# Summary

## Hiatus hernias:

- Reflect a failure of anatomy
- Cause Reflux, Belching, Swallowing difficulties, and Shortness of Breath
- Should all be surgically corrected
- Modern laparoscopic techniques are effective, safe and allow a rapid return to work and everyday life

