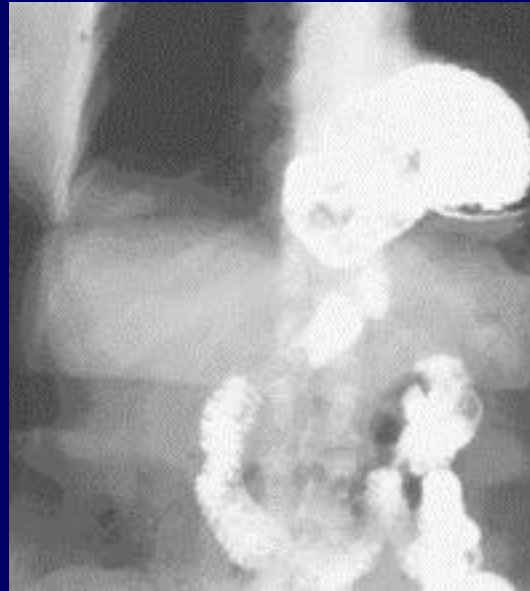


Laparoscopic repair of Large hiatus hernia



Prof. R. K. Mishra





Definition

Hiatal hernia is an opening in the diaphragm through which stomach or omentum is forced into the chest cavity.





Types

- Type I hiatus hernia. The approach to this repair is usually by laparoscopic Nissen fundoplication.
- Type II hiatus hernia. Much less frequently patients will present with a giant paraesophageal hernia (GPEH). This type of hernia likely results from progression of a simple type I hernia with rolling of the fundus up alongside the gastroesophageal junction. Most patients are symptomatic, with dysphagia and heartburn being extremely common problems





Symptoms of Type II hiatus hernia

- Typical Heartburn 47%
- Dysphagia 35%
- Epigastric Pain 26%
- Vomiting 23%
- Anemia 21%
- Barrett's Epithelium 13%
- Aspiration 7%



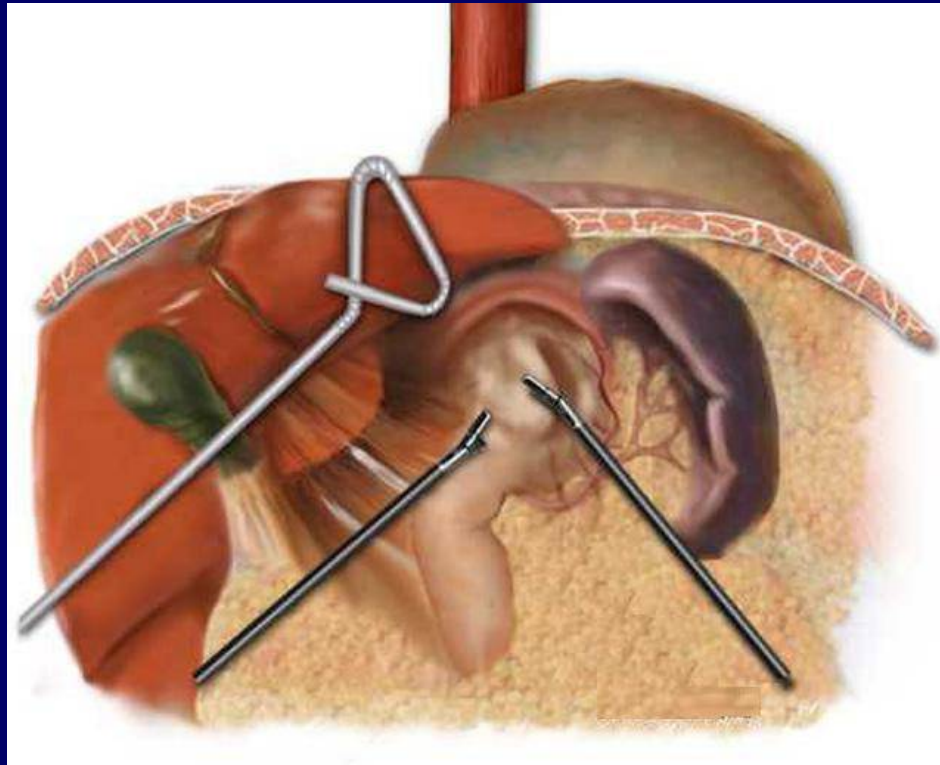


Indication

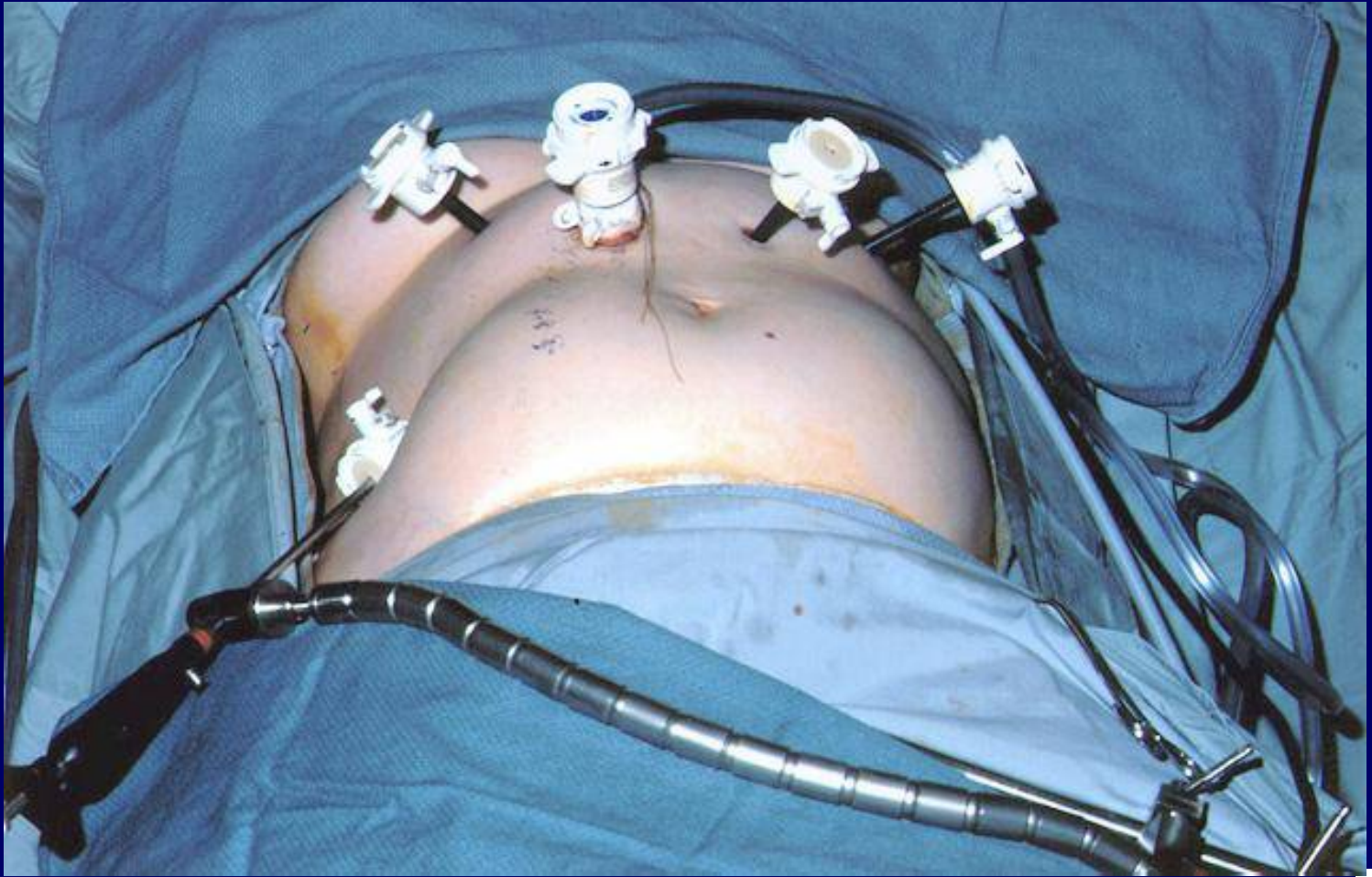
- ☐ Severe heartburn
- ☐ Severe inflammation of the esophagus due to reflux
- ☐ oesophageal stricture due to acid damage
- ☐ Chronic inflammation of the lungs (pneumonia) due to frequent breathing in (aspiration) of gastric fluids
- ☐ A type of hiatal hernia where the stomach is at risk of getting stuck in the chest or twisting on itself (para-esophageal hernia)



Port Position

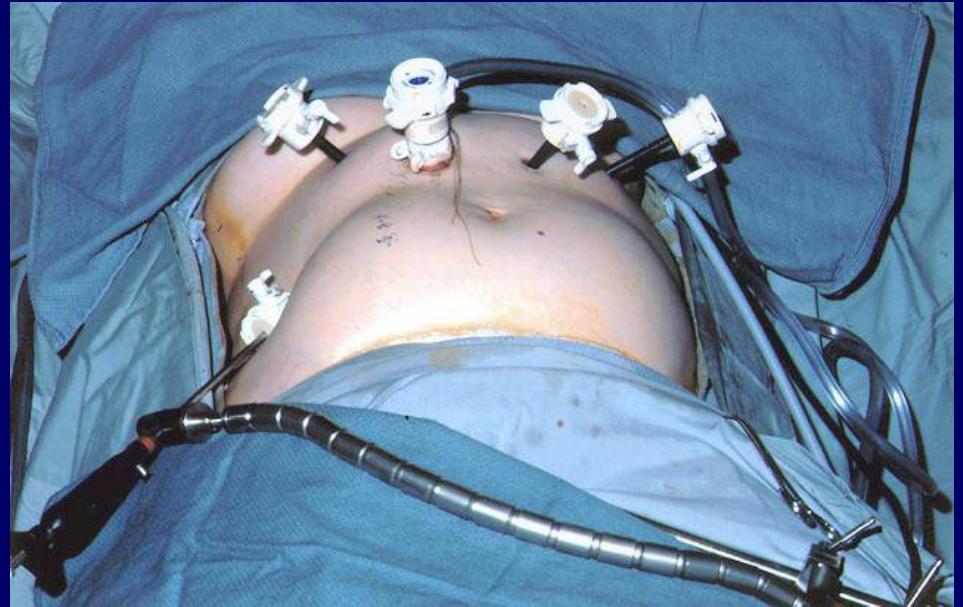


Port Position



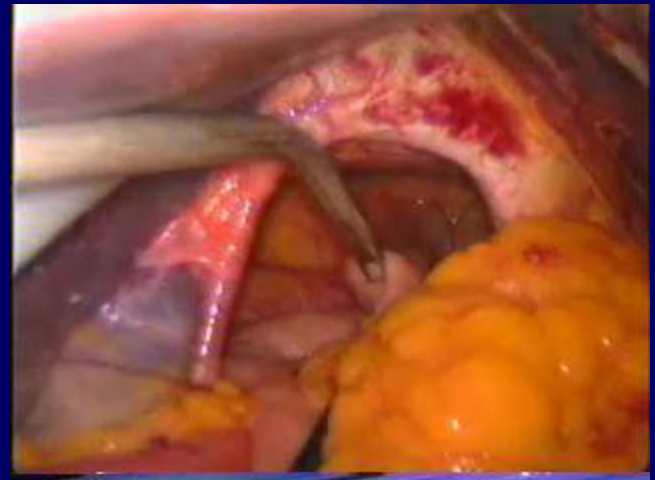
Port Position

- The patient is positioned supine on the operating table, and the surgeon works from the right side with the assistant on the left.
- Four 5 mm and one 10 mm laparoscopic ports are placed in the upper abdomen



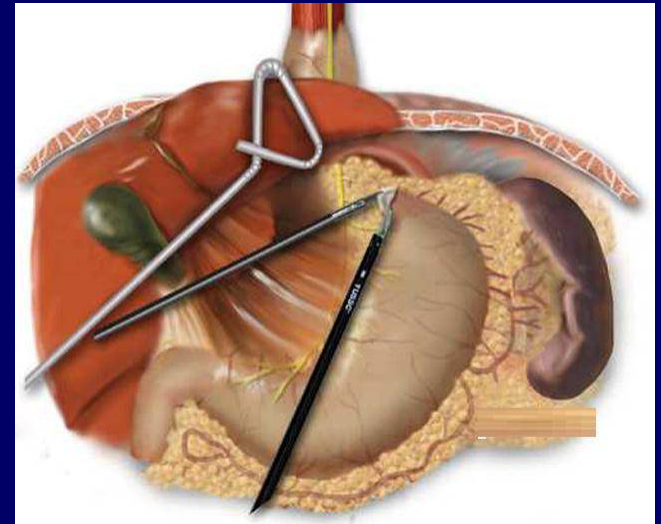
Reduction of content of hernia

After exposing the hiatus, the herniated stomach is reduced into the abdomen using atraumatic graspers in a "hand-over-hand" fashion



Dissection

Dissection is started for exposing the right and left crus of the diaphragm and mobilising the oesophagus

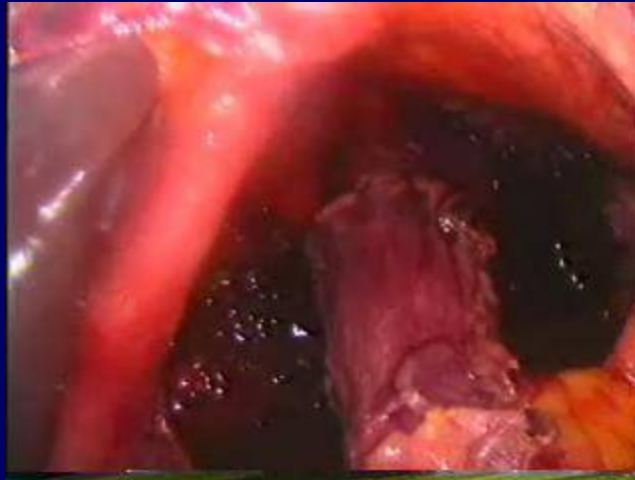


Sling application

Sling is applied to retract the oesophagus and facilitate mobilization posteriorly.

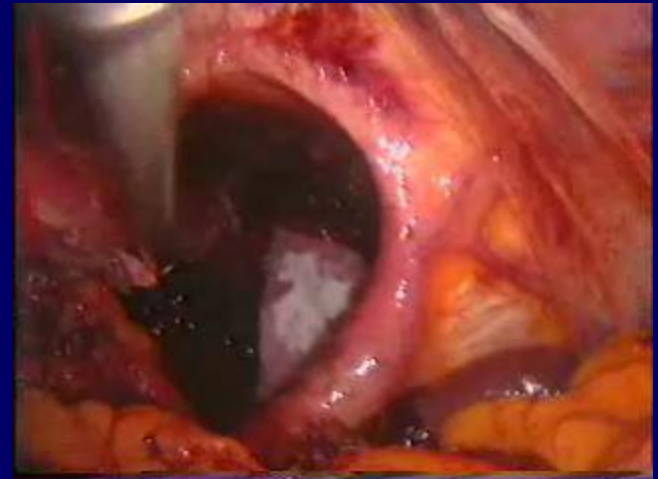


Introduction of Mesh



Crural repair

Tumble Square Knot is used to approximate the crura

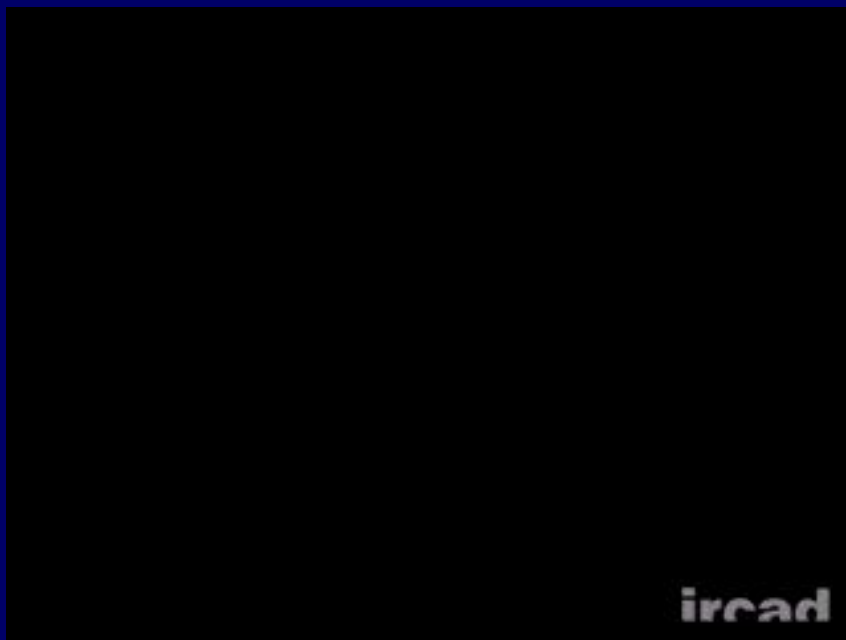
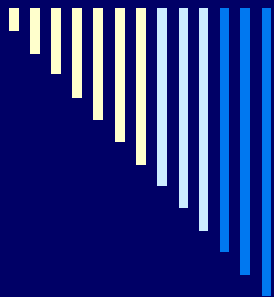


Mesh Fixation



Fixation of Stomach







Recommendation to avoid complication

- Ports need to be placed high on the abdomen since much of the stomach will be up in the mediastinum.
- Use both compression stockings and subcutaneous heparin to prevent deep venous thrombosis.
- Attempt to work at intraabdominal pressures less than 15 mmHg if possible.
- We prefer the bipolar for mobilization of the anterior gastroesophageal fat pad.
- It is important to remove the hernia sac from the mediastinum while avoiding entry into the pleural spaces.



Handle the stomach gently with graspers - the chronically herniated stomach perforates relatively easily!





Thank You

