Laparoscopic reduction, mesh repair with partial anchorage and gastropexy using Per Cutaneous Gastrostomy (PEG) for a case of Gastric Volvulus with paraesophageal Hernia -

An early experience of our ingenious technique.

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INTRODUCTION

- Anti-reflux procedures are being performed increasingly after the invention of laparoscopy.
- Laparoscopic Nissen's fundoplication is a relatively safe procedure but rarely complications do occur.
- One of the documented complications is Gastric volvulus which can present as acute or chronic.
- We report a case of chronic gastric volvulus with paraesophageal hernia in a male patient after 2 years of laparoscopic Nissen's fundoplication.

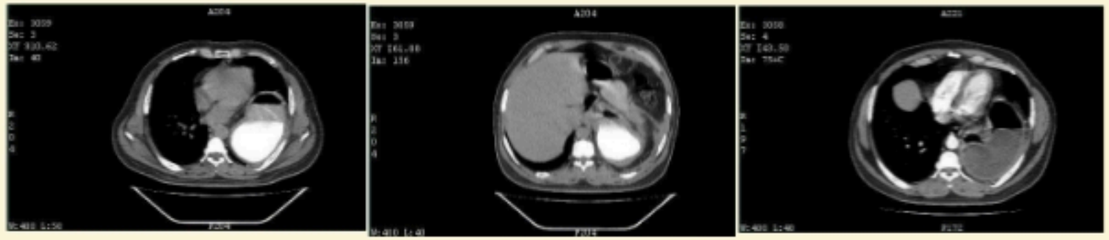
CASE REPORT

- 52 year male patient presented with history of epigastric pain which aggravated after meals since 2 months.
- He also complained post prandial fullness and shortness of breath during exertion.
- The laparoscopic Nissen's fundoplication was performed 2 years earlier for GERD.
- No history of pre-morbid conditions.
- Examination revealed stable vitals with epigastric tenderness, decreased breath sounds in left lower chest.

DISCUSSION

- Gastric volvulus is a rare and life threatening complication of laparoscopic Nissen's fundoplication.
- Symptoms can vary from abdominal pain and vomiting to complete strangulation.
- 3 types - Organoaxial, Mesenteroaxial and Mixed.
- CT abdomen is the most important tool for diagnosis.
- Endoscopic reductions are associated with recurrences.
- Laparoscopic reduction with Gastropexy is the definitive treatment.

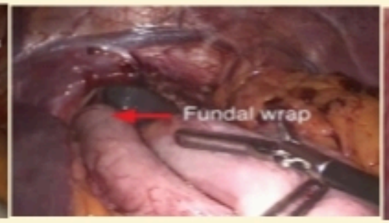
PRE-OP CT IMAGING



Mesenterico-axial volvulus of stomach, herniating through defect in the left hemidiaphragm into left hemi-thorax.

INTRA - OP IMAGING



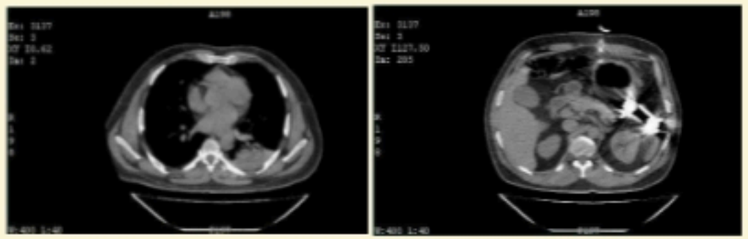








POST-OP CT IMAGING



Lung expansion after surgery with PEG tube in situ and polypropylene mesh being seen anchored to crus.

- We did laparoscopic reduction of volvulus. Paraesophageal hernia was evident with sac over the left side of lower esophagus.
- Contents retrieved into abdominal cavity.
- The upper part of stomach was distorted because of previous fundoplication.
- The sac was excised, hiatus and both crux were defined, Mesh placed and anchored.
- Gastropexy was performed using PEG tube insertion in order to facilitate strong anchorage of stomach to anterior abdominal wall.
- Post-op recovery was uneventful and patient was discharged on POD 4 after check CT.
- PEG tube was removed after 3 months.
- Patient came for follow up for about two years without any symptoms.

CONCLUSION

- Gastric volvulus can be a potential life threatening complication of laparoscopic Nissen's fundoplication.
- Always keep an eye for associated Paraesophageal hernia.
- Our aim of using PEG tube for Gastropexy was to anchor stomach strongly to anterior abdominal wall and to prevent gastric pseudohernia which can occur due to constant negative intra-thoracic pressure in large paraesophageal hernia.

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