

# Outcomes Of Paraesophageal Hernia Repair After Successful Endoscopic De-Torsions Of Acute Gastric Volvulus

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## INTRODUCTION

- Endoscopic de-torsions of gastric volvulus (GV) can be used as a bridge for definitive laparoscopic paraesophageal hiatal hernia repair (PEHR), since emergent PEHR results in worsen outcomes.
- Our aim was to assess surgical outcomes of patients undergoing PEHR following successful endoscopic de-torsions of GV.

## METHODS

- A single-institution, retrospective review was conducted for adult patients with a diagnosis of gastric volvulus who underwent esophagogastroduodenoscopy (EGD) and de-torsion over a 6-year period (2012-2017). Patient demographics, treatment received, clinical and surgical outcomes, and need for surgical intervention post-procedure were collected using medical records. Patients were divided between those who subsequently underwent PEHR versus those undergoing either no surgery or laparoscopic gastropexy with gastrostomy tube or PEG placement (NPEHR). Comparisons were made between PEHR and NPEHR. Statistical analysis were performed using IBM SPSS 25.0

## RESULTS

- 22 patients underwent successful endoscopic de-torsion for acute GV within 24-48 hours of presentation
- All patients were Caucasian.
- 54.5% (n=12) of patients underwent subsequent PEHR with mean time to surgery being 28.25 days.
- 31.8% (n=7) had severe medical comorbidities prohibitive to PEHR and were offered laparoscopic gastropexy with gastrostomy tube or PEG placement.
- Two patients were lost to follow up and one patient was made hospice by his family in spite of a technically successfully endoscopic de-torsion.
- Patients with subsequent PEHR were significantly younger than those in the NPEHR group (59.5 years vs 77 years, p=0.016).
  - Median body mass index was significantly lower for patients in the NPEHR group (20.99 kg/m<sup>2</sup> [18.38-47.29kg/m<sup>2</sup>]) compared to PEHR patients (32.79 kg/m<sup>2</sup>[22.98-49.39kg/m<sup>2</sup>], p=0.004.
- Gender (p=1.000), preexisting hypertension (p=0.669) and diabetes (p=1.000) were similar between groups.
- No patient required emergent surgery following detorsion.

## TABLES

| PEHR                                  |       |             |
|---------------------------------------|-------|-------------|
|                                       | Mean  | Range       |
| Age (years)                           | 59.5  | 31-81       |
| Median body mass (kg/m <sup>2</sup> ) | 32.79 | 22.98-49.39 |

| NPEHR                                 |       |             |
|---------------------------------------|-------|-------------|
|                                       |       |             |
| Age (years)                           | 77    | 34-89       |
| Median body mass (kg/m <sup>2</sup> ) | 20.99 | 18.38-47.29 |

## CONCLUSIONS

- Older patients with lower body mass index were less likely to be offered formal hiatal hernia repair after successful GV endoscopic distortion.
- In patients with prohibitive medical comorbidities and poor nutritional status, a surgical intervention may even be completely avoided.
- To our knowledge this is the first study describing surgical outcomes in PEHR following a totally endoscopic approach to acute gastric volvulus.

## DISCLOSURES

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