

Introduction

- In the last decade, peroral endoscopic myotomy (POEM) has emerged as an effective endoscopic treatment for motility disease. This treatment is commonly utilized for the management of esophageal achalasia.
- The purpose of our study was to investigate 6-month and 1-year postoperative weight change in patients who underwent a POEM procedure.

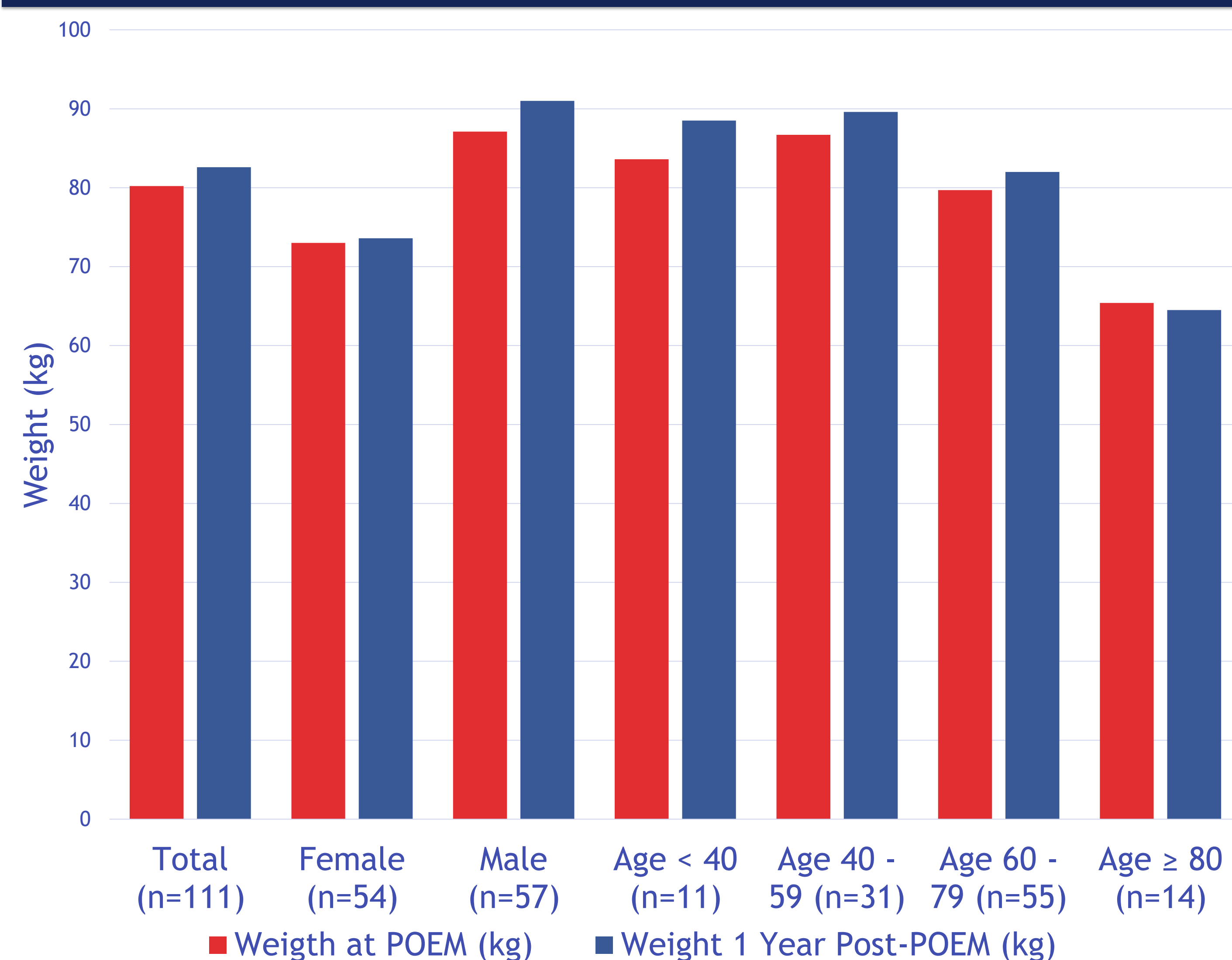
Methods

- We performed an IRB approved single center retrospective study.
- Patients diagnosed with achalasia who underwent a POEM procedure between January 1, 2017 and December 30, 2021 were included in our study.
- Pre-procedural and post-procedural weight (kg) and albumin levels 6 months and 1-year post-POEM procedure were collected and analyzed.
- All statistical analysis was completed with STATA.

Results

- After six months, post-POEM procedure weight increased 2.1% (p=0.04). Female patients did not have a significant weight change, but male patients had a 5.0% increase (p=0.006).
- For weight change at six months, patients less than 40 years old had a 5.7% increase (p=0.03), and patients between 60-79 years old had a 2.4% increase (p=0.02).

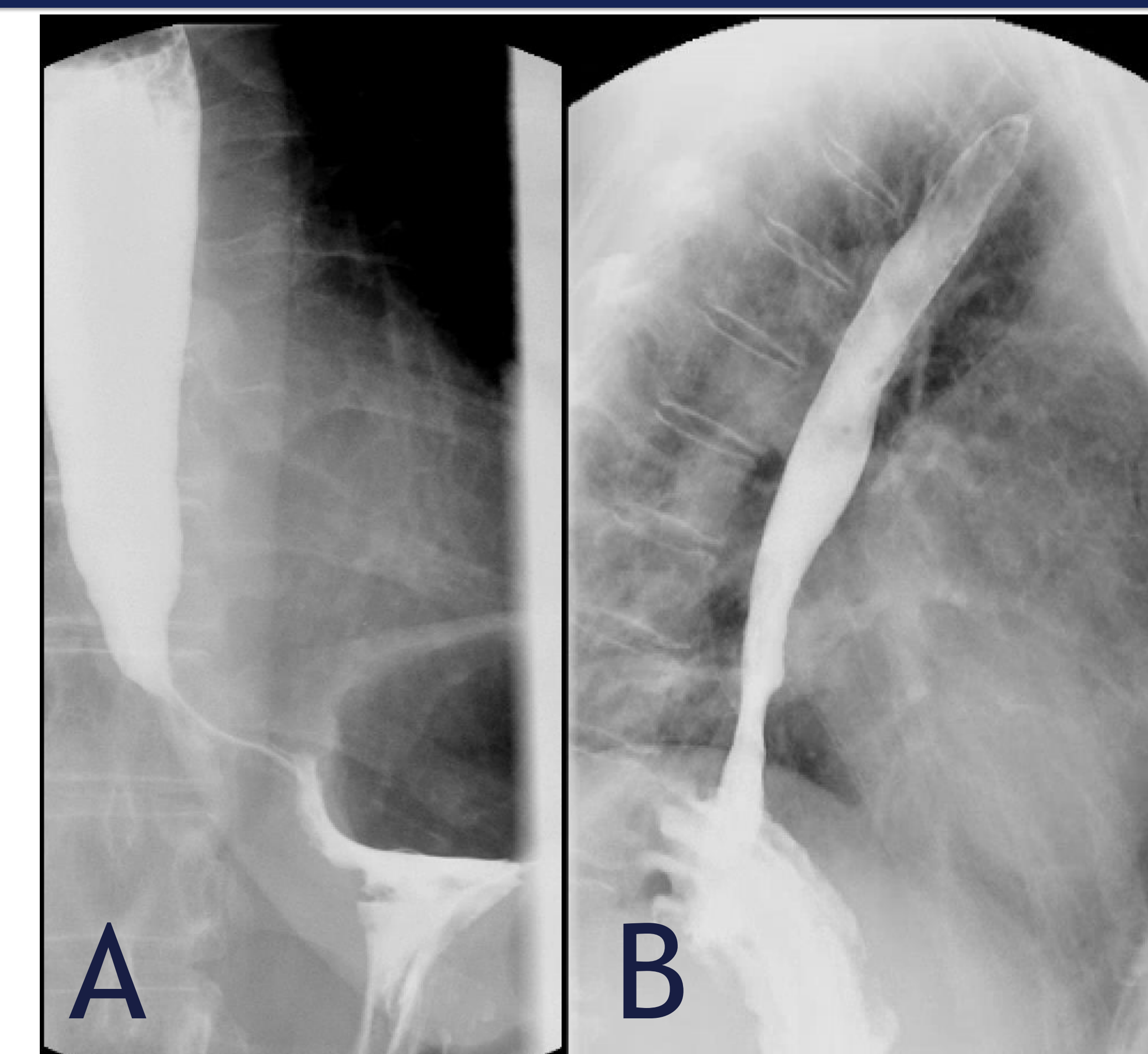
Table 1: Change in Weight One Year Post POEM



Results (Continued)

- After 1-year post-POEM, there was a 2.9% weight increase (p<0.001) for all patients. Female patients did not have a significant change (p=0.17), but male patients had a 4.5% weight increase (p<0.001).
- Stratified by age, all groups had a statistically significant increase in weight except for patients >80 years old (p=0.29). Patients less than 40 years old had a 5.8% increase (p=0.005), 40- to 59-year-old patients had a 3.4% increase (p=0.006), and 60- to 79-year-old patients had a 2.9% increase (p=0.002).
- Weight at 1-year post-POEM, stratified by comorbidity (Obesity, hyperlipidemia, coronary artery disease, diabetes mellitus, and chronic kidney disease), showed no statistically significant change for any disease.
- In 6 months and 1 year, the mean albumin level increased post-POEM procedure (Pre procedure mean 3.69, 6 months mean 3.90, and 1 year mean 4.12); which was statistically significant (p=0.001).

Figure 1: Esophagram Radiographic Study



A: Pre POEM

B: Post POEM

Discussion

- There was a statistically significant increase in both 6-month and 1-year postoperative weight and albumin levels among all patients who underwent a POEM procedure.
- Male patients were significantly more likely to have an increase in postoperative weight than females. There was also a statistically significant increase in weight among patients age < 40 years old, 40 to 59 years old, and 60 to 79 years old 1-year postoperatively.
- When stratified by comorbidities, there was no significant change in weight 1-year postoperatively.
- Further studies are indicated to better assess the consequences or benefits of postoperative weight gain.