Stuck in the Chest: BMI and Recurrence After Paraesophageal Hernia Repair, a Single Institution Experience

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Introduction

Obesity and paraesophageal hernia are often found together. Obesity is believed to negatively affect outcomes. However, it has not been well studied nor reported. The authors present a retrospective single institution analysis of obesity and recurrence to add to the generalizable knowledge about this relationship.

Methods and Procedures

A total of 150 patients underwent laparoscopic paraesophageal hernia repair from 2014 until 2022. Patient characteristics such as smoking status, BMI, operative factors such as operative length, conversion to open procedure, recurrence by imaging and need for re-operation were collected. Recurrence by imaging was defined as >10% of the stomach or > 2 cm above the hiatus. R statistical software was used to perform Chi-square testing.

Results

In our population of 150 patients, the average age at index operation was 65 with average BMI of 29. 105/150 or 70% were classified as giant or containing >50% of the stomach. 19.3% presented as urgent cases (surgical intervention performed at same admission).

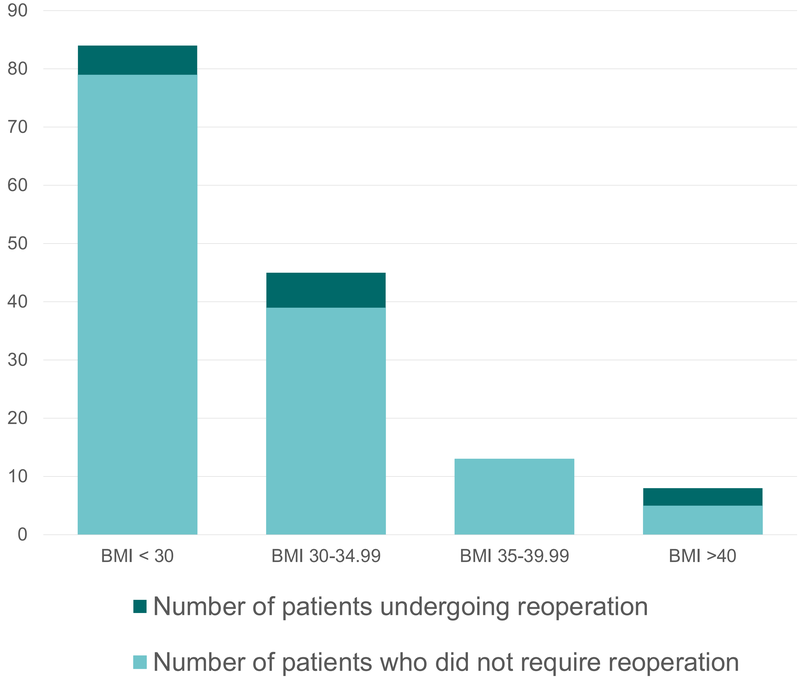


Figure 1: Graphical representation of patients who required reoperation for recurrent paraesophageal hernia by BMI subgroup

Results cont.

The average length of stay was 2.6 days with average follow-up of 57.9 weeks. Of non-smoking patients, 12/92 (11.5%) required reoperation for hernia recurrence while 2/44 (4.3%) in the smoking population needed reoperation. Smoking was not statistically significantly associated with need for reoperation for hernia recurrence (p=0.167). For the BMI <30 group, 5/79 (5.9%) patients required reoperation for paraesophageal hernia recurrence. In the BMI 30-34.99 group, 6/39 (13.3%) required reoperation. No patients in the BMI 35-39.99 group required reoperation, however 3/5 (37.5%) of the patients with BMI > 40 required reoperation. Chi-square analysis demonstrated p=0.012.

Conclusions

Our study establishes that there is an association between elevated BMI and reoperation for recurrence of paraesophageal hernia. Further investigation into the factors associated with reoperation is needed. In elective cases, BMI matters and should be considered and communicated in the decision for, and in the timing of surgery for paraesophageal hernia.