

14:00 - 15:30

Room A

GI Tract

SS 1901a

Gastric cancer and upper GI tract diseases

Moderators:

I. Blazic; Belgrade/RS

S.A. Jackson; Plymouth/UKB-1226 14:57

**B-1226 14:57**

Gastric remnant volume on radiology as a predictor of weight loss after laparoscopic sleeve gastrectomy for morbid obesity

A. Bertesso, I. Zotta, G. Barbiero, M. Zuliani, A.C. Frigo, L. Prevedello, M. Foletto, F. Pomerri; Padua/IT (alberto.bertesso@gmail.com)

**Purpose:** To correlate initial gastric remnant volume after laparoscopic sleeve gastrectomy (LSG) with volumetric changes and patient's weight loss (WL).

**Methods and Materials:** A retrospective review was conducted on 430 upper gastrointestinal contrast studies concerning 159 obese patients with body mass indexes (BMI) exceeding 40 kg/m<sup>2</sup> or 35 kg/m<sup>2</sup> and comorbidities who underwent LSG from 2007 to 2016 and were followed up for periods ranging from 3 months to 6 years. Radiological images of the gastric remnants were broken down into multiple components and volumes were calculated with appropriate software. Percent excess weight loss (%EWL) and reduction in BMI were also calculated in all patients at each follow-up. Relationships between variables were assessed with Spearman's rank correlation coefficient, Wilcoxon's signed-rank test and Student's t-test.

**Results:** The mean gastric remnant volume on the first postoperative day (t=0) was 130.7±53ml, and then increased at most of the follow-up intervals analysed (p<0.0001). The reduction in BMI was greatest at 1 year (57.3±40%), 2 years (79.2±70%), and 6 years (64.8±37%). The highest %EWL was identified at 6 months (44.8±20%), 2 years (52.7±26%), and 3 years (47.8±25%) and was positively correlated with a gastric remnant volume of 125ml or less at t=0 (p<0.05). No correlation emerged between gastric volumetric changes and %EWL.

**Conclusion:** A direct relationship was documented between an initial sleeve volume of ≤125ml and a satisfactory WL after LSG. The increase in gastric remnant volume on radiology after surgery did not affect the WL achieved over the long-term follow-up.