versus 9.1% with BMI < 40 kg/m², \( p=0.064 \). Regression analysis revealed that patients who did not undergo concurrent HIR were 6.8 times more likely to develop de novo GERD at long-term. BMI, age and %EWL at long-term were not independently associated with either resolution of or de novo GERD.

**Conclusions:** Our preliminary results revealed that concurrent HIR was independently associated with de novo GERD symptoms at long-term after SG. Age, BMI, and long-term %EWL were not associated. This information can help guide patient candidacy for SG.

**A511**

**IMPACT OF WEIGHT LOSS ON BODY IMAGE PERCEPTION OF PATIENTS SUBMITTED TO GASTRIC BYPASS**

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**Background:** Body image is a multidimensional construct that is influenced by several factors, being considered the mental representation of body contours and covers physiological, social, affective and libidinal aspects. The objective of this study was to follow the impact of weight loss, induced by gastric bypass bariatric surgery, on the perception of the body image of patients in the pre and postoperative periods of 6 months.

**Methods:** Observational study of a longitudinal design, carried out in a private clinic in the South of Brazil. The sample consisted of 104 subjects submitted to gastric bypass. The perception of the corporal image was realized through the Brazilian scale of silhouettes for adults, adapted by Kakeshita. Anthropometric data (weight, height, BMI) were obtained through chart analysis. Follow-up occurred in the pre- and postoperative periods of 6 months. Approved by the Research Ethics Committee of the Francisco University: 1,830,670.

**Results:** The study consisted of 104 patients, with a mean age of 38.59 (± 9.98) years, of which 85 (81.7%) were female and 19 (18.3%) were male. The mean value of the percentage of excess weight loss (%EWL) of patients between preoperative and postoperative was 77.35% (± 16.70). Body image distortion was 81.7% in the pre and 77.1% in the postoperative period. The correlation between weight loss and body image distortion was considered to be very low (rs: 0.008, \( p = 0.957 \)).

**Conclusions:** Gastric bypass-induced weight loss did not impact body image distortion in bariatric patients, and most patients remained distorted postoperatively. Key words: Gastric bypass; Body image; Obesity; Weight loss.

**A512**

**FIRST PROSPECTIVE CLINICAL TRIAL OF A NOVEL MAGNETIC RETRACTION DEVICE DURING REDUCED PORT BARIATRIC SURGERY (CLINICALTRIALS.GOV NCT03508674)**

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**Background:** Surgery is constantly searching for ways to improve outcomes in order to increase patient quality of life. Magnetic retraction has the potential to maximize the benefits of minimally invasive surgery, as this innovative technology enhances exposure meanwhile reducing invasiveness. Early clinical results showed reduced pain, less scars and shorter length of hospital stay in general surgical procedures. The purpose of this study was to evaluate the safety and effectiveness of the Levita Magnetic Surgical System (LMSS) in bariatric surgery.

**Methods:** A prospective single-arm study was conducted using the LMSS (Levita Maganetics, San Mateo CA) for liver retraction. All adverse events (AE) were captured and summarized by relatedness to the device and/or procedure, seriousness and level of severity. The primary effectiveness endpoint was the ability to adequately retract the liver to achieve an effective exposure of the target tissue.

**Results:** Good Clinical Practices and ISO14155:2011(E) were strictly followed. Local IRB approval was obtained and 50 subjects underwent surgery (average BMI 40.7, max 58.2 kg/m²). All cases were performed with a reduced port technique. The average procedure time was 61 minutes. In all cases, the MSS was able to adequately retract the liver to achieve an effective exposure. No device-related severe or serious adverse events were reported.

**Conclusions:** The study results demonstrate that the Magnetic Surgical System can be used in reduced port bariatric surgery in a safe and effective manner. It is interesting to highlight that this new technology might provide better patient experience and increase patient satisfaction.

**A513**

**EFFECT OF SURGERY ON MUSCLE COMPOSITION AND BODY COMPOSITION OF BARIATRIC PATIENTS**

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**Background:** Rapid weight loss is commonly seen post bariatric surgery majority in the form of skeletal muscle mass and body fat mass. This study aims to analyze the early postoperative changes at an academic tertiary referral center.

**Methods:** Retrospective analyses of a prospectively maintained database was performed for patients who underwent LSG and LGBP in 2017. Pre-operative and one month weight, BMI, total body fat (TBF), % TBF, total muscle mass (MM), % MM, and change in above parameters were recorded. Impact of surgery on MM and %MM were analyzed by linear regression models to correct for confounders.

**Results:** 89 patients were identified, 79.8% were female, mean age was 41.7,83 LSG and 6 LGBP in 2017. Pre-operative and post-operative values were as follows weight 268.4lb vs 239.4lb, BMI 44.6 vs 39.5, TBF 135.7lb vs 116.4 (-18.78lb), TBF% 50.5 vs 48.73, mean MM 74.5lbs vs 67.8(-6.7lb), despite the decrease in MM, MM% remained stable 27.7% vs 28.3%.

When corrected for confounders, type of surgery, BMI, and TBF did not affect loss in MM, however age (beta -0.01 \( p=0.02 \)) and sex (beta -0.568, \( p<0.001 \)) pre-operative weight (beta -0.036, \( p=0.009 \)), total weight loss (beta 0.78, \( p=0.04 \)) were significant factors.