How Preoperative Investigations Affect the Management of Bariatric Patients - Results of a Cohort Study of 897 Patients


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Background: Poorly defined preoperative diagnostic protocols worldwide vary in their emphasis on comprehensive investigations, with some prioritizing patient safety while others question routine procedures.

Aims: This study explores how diverse preoperative findings, from inflammatory processes to structural abnormalities, significantly influence patients’ management and the choice of bariatric procedures, underscoring the complexity in decision-making for individualized surgical interventions based on a cohort study’s findings.

Methods: In a retrospective analysis of prospective data of over 1000 bariatric surgery patients from January 2017 to December 2022, we specifically included those who underwent primary laparoscopic Roux-en-Y gastric bypass (LRYGB) or laparoscopic sleeve gastrectomy (LSG). In all patients, preoperative upper endoscopy was performed, with selected candidates also undergoing additional procedures like upper GI series and esophageal manometry, especially when LSG was planned. The study primarily analyzed the impact of preoperative examinations on therapeutic approaches.

Results: In this study, 897 patients were included, with 741 undergoing laparoscopic LRYGB and 156 LSG. All patients underwent upper endoscopy, revealing common findings such as type C gastritis, gastroesophageal reflux disease, and detection of Helicobacter pylori. Upper endoscopy prompted a therapeutic change in 216 patients (24.3%), resulting in a number needed to screen (NNS) of 4.1, with no significant differences based on the initially scheduled procedure. Preoperatively, upper GI series were more frequently conducted before planned LSG, uncovering hiatal hernias and motility disorders. However, no change in the surgical procedure resulted from upper GI series findings. Esophageal manometry, primarily performed for LSG, indicated normal findings in 84.6%, with a procedural change in 3 patients (2.0%). Overall, 14 (1.6%) patients experienced a change in the planned procedure, with 12 changes prompted by preoperative findings and two by technical difficulties.

Conclusion: We recommend routine upper endoscopy for all bariatric surgery patients, with additional manometry for planned LSG. Upper GI series should be reserved for selected cases and specific clinical indications.