Chirurgia (Bucur). 2026;121(5):516-526
http://dx.doi.org/10.21614/chirurgia.3382

New-Onset Erosive Esophagitis after Laparoscopic Sleeve Gastrectomy: Does Preoperative Esophagogastric Junction Anatomy Matter?

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Abstract
Background: Laparoscopic sleeve gastrectomy (LSG) imposes a reflux challenge on an sophagogastric junction whose competence varies before surgery.
Methods: Routinely collected data from 250 consecutive index LSG procedures at a private bariatric center (2020–2025) were analyzed retrospectively. Association analyses required normal baseline mucosa and a valid endoscopy 274–456 days after surgery. Hiatal hernia and Hill grade were modeled separately and jointly, with sensitivity analyses. A 67-patient subset is reported separately.
Results: Of 239 baseline-normal patients, 228 were target-due; 139 had window endoscopy; 48 had new-onset erosive esophagitis (34.5%; 33 LA-A, 15 LA-B), 15/139 LA-B–D (10.8%). Hiatal hernia (20/33 versus 28/106; adjusted OR 4.34, 95% CI 1.85–10.14) and Hill grade (adjusted OR 2.13/grade, 1.36–3.35) were associated separately, rising from 6/35 (17.1%) at Hill I to 5/7 (71.4%) at Hill IV. In the near-complete-capture period (61/62 examined), esophagitis occurred in 19/61 (hernia OR 8.25). No association was detected for four technical measures. Major morbidity 7/250 (2.8%), leak 2/250 (0.8%), mortality 0/250.
Conclusions: Preoperative hiatal hernia and increasing Hill grade were associated with new-onset erosive esophagitis after LSG, including in the near-complete-capture period. These findings support deliberate anatomical assessment but do not establish technical equivalence or identify an optimal antireflux strategy.
Keywords: laparoscopic sleeve gastrectomy, endoscopic esophagitis, Los Angeles classification, hiatal hernia, Hill grade, perioperative safety