

MINIMALLY INVASIVE INTERVENTIONS VERSUS LAPAROTOMY IN PERFORATED GASTRODUODENAL ULCERS: A COMPARATIVE ANALYSIS OF EARLY OUTCOMES

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Relevance. Perforated gastroduodenal ulcer remains one of the most common surgical emergencies and is associated with substantial postoperative morbidity and mortality. Conventional management based on wide laparotomy and forced radical operations is accompanied by a high incidence of purulent-septic and wound complications and prolonged rehabilitation. The expanding role of laparoscopic and video-assisted techniques requires objective evidence comparing their early results with those of traditional open surgery.

Material and methods. A comparative analysis was performed in patients operated on for perforated gastroduodenal ulcer between 2019 and 2023. The main group (n=124) was treated with minimally invasive interventions (laparoscopic and video-assisted suturing), whereas the control group (n=86) underwent conventional laparotomy. The overall complication rate, purulent-septic and wound complications, postoperative mortality, relaparotomy rate and time to early mobilization were assessed.

Results and discussion. The overall postoperative complication rate was significantly lower in the minimally invasive group than in the laparotomy group (8.9% vs 26.7%; $p < 0.05$). Purulent-septic complications occurred in 3.2% versus 14.0% (a 4.4-fold difference), and wound complications (suppuration, evisceration) in 1.6% versus 9.3%. Postoperative mortality was 0.8% (1 patient) in the minimally invasive group and 4.7% (4 patients) after laparotomy ($p < 0.05$), while the need for relaparotomy decreased from 7.0% to 1.6%. Early mobilization was achieved 3.2 times faster (1.2 ± 0.4 vs 3.8 ± 1.2 days), and the mean hospital stay was reduced from 12.4 ± 2.6 to 6.8 ± 1.4 days (by 45.2%).

Conclusion. Compared with forced radical laparotomy, minimally invasive interventions for perforated gastroduodenal ulcers significantly reduce postoperative complications and mortality, lower the relaparotomy rate, accelerate early mobilization and shorten hospital stay. These findings support the wider adoption of a minimally invasive surgical strategy in this category of patients.