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LAPAROSCOPIC ADHESIOLYSIS WITH ANTIADHESION BARRIERS VERSUS TRADITIONAL LAPAROTOMY IN ACUTE ADHESIVE SMALL BOWEL OBSTRUCTION: CLINICAL OUTCOMES

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Relevance

Acute adhesive small bowel obstruction is associated with a high rate of postoperative complications and a recurrence rate of up to 30%, while repeated laparotomy itself promotes new adhesion formation. Minimally invasive surgery offers reduced trauma, less pain and faster recovery; however, clear indications for laparoscopic adhesiolysis and the role of intraoperative antiadhesion barriers remain to be defined.

Material and methods

The results of surgical treatment were analyzed in 144 patients with acute adhesive small bowel obstruction (2021–2024). The main group (n=71) underwent laparoscopic adhesiolysis combined with the “Hemoben” and methylene blue antiadhesion barrier, while the control group (n=73) was treated with the traditional laparotomy approach. The groups were comparable in age, sex, etiology and extent of the adhesive process (Blinikov classification). Conversion rate, complications, recovery of bowel function, hospital stay, mortality and recurrence were assessed.

Results and discussion

Laparoscopic adhesiolysis was successfully completed in 48 of 71 patients (67.6%), with conversion to laparotomy in 18.3%, mainly because of technical difficulties in separating dense small-bowel conglomerates or bowel injury. Recovery of gastrointestinal motility was significantly faster after laparoscopy (1.36±0.4 vs 5.1±1.6 days) and the postoperative hospital stay was shorter (median 5.6 vs 14.1±5.7 days; $p<0.05$). No deaths occurred in the main group, whereas two patients died in the control group (massive pulmonary embolism and anastomotic leakage with peritonitis and sepsis). The recurrence rate after laparoscopic adhesiolysis with antiadhesion barriers was 4.2%, and at 6–12 months no signs of recurrent obstruction were found in the examined patients.

Conclusion

In carefully selected patients with grade I–II adhesive disease, laparoscopic adhesiolysis combined with an antiadhesion barrier reduces operative trauma, accelerates recovery of bowel function, shortens hospital stay and lowers complication, mortality and recurrence rates compared with traditional laparotomy. Strict patient selection remains essential to minimize conversions and early postoperative complications.