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Graham's patch versus modified Graham's patch in the management of perforated duodenal ulcer; a comparative study in Bangladesh

Background

Duodenal ulcer perforation is a critical complication of peptic ulcer disease and a notable contributor to patient mortality.

Purpose and research question

This study aimed to compare and evaluate the clinical outcomes of Graham's patch repair and modified Graham's patch repair in managing perforated duodenal ulcers at a tertiary care hospital in Bangladesh, and evaluate which treatment is more effective.

Methodology

This comparative observational study was conducted over six months in the Department of Surgery at Dhaka Medical College Hospital. Sixty patients diagnosed with duodenal ulcer perforation were enrolled and evenly assigned to two groups: one undergoing traditional Graham's patch repair and the other receiving modified Graham's patch repair. Patients were selected based on set inclusion and exclusion criteria, and informed consent was obtained. Data collected included baseline clinical features, perforation size, presence of intra-abdominal pus, and postoperative outcomes such as wound infection, leakage, abscess formation, pyrexia, need for re-operation, and hospital stay duration. Data were analyzed using STATA version 13.

Results

The mean age of participants was 34.22 ± 8.59 years (range: 16–53), with 60% being male. The average perforation size was nearly identical between groups (0.77 cm vs. 0.78 cm). Intra-peritoneal pus was more common in the Graham's patch group (90% vs. 67%). Wound infection was the most frequent complication (30% in Graham's vs. 40% in modified), but no statistically significant differences in any complication or hospital stay (6.12 ± 2.34 vs. 7.78 ± 1.39 days) were found ($p > 0.05$).

Conclusions

Both Graham's patch and modified Graham's patch repair showed similar effectiveness in managing perforated duodenal ulcers, with no significant differences in outcomes.

Keywords

duodenal ulcer perforation, Graham's patch repair, surgery

Biography

I am an academic resident doctor with a special interest in general surgery. I completed my medical training at the University of Sheffield, obtaining a Masters (distinction) degree too. I am currently on my general surgery rotation at Kettering General Hospital.