

Selection of patients for laparoscopic repair of perforated peptic ulcer.

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Publication Date: 2001

Abstract:

Background: Although randomized and non-randomized studies have evaluated the safety of laparoscopic repair for perforated peptic ulcer, no definite guidelines have been published on selection of patients for laparoscopic repair. This cohort study aimed to define patients who may not benefit from laparoscopic techniques. Methods: The data from 374 consecutive patients with perforated peptic ulcer treated by simple repair were collected prospectively and analysed. Results: From January 1992 to December 1998, 219 patients were treated by open suture repair, 109 by laparoscopic sutureless (fibrin glue) repair and 46 by laparoscopic suture repair. The overall leak rate after laparoscopic suture and sutureless repair was 6 and 16 per cent respectively. Leakage was noted to be associated with a significantly higher rate of wound infection, intra-abdominal abscess formation, prolonged ileus ($P < 0.001$) and longer hospital stay (11 versus 5 days; $P < 0.001$). Multivariate analysis demonstrated that Acute Physiology And Chronic Health Evaluation (APACHE) II score on admission predicted the likelihood of a leak after laparoscopic fibrin glue repair ($P = 0.006$). Conclusion: APACHE II score may be a useful index for selecting patients for laparoscopic fibrin glue repair.