Laparoscopic versus open repair for perforated peptic ulcer: Two centers study

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Purpose: The study included patients diagnosed as perforated peptic ulcer. Outcomes are assessed by mortality and morbidity rate, operation time and hospital length of stay.

Methodology: In the period from January 2013 to December 2014, a total of 71 patients were operated in both facilities: 37 patients in Dubai hospital and 34 in Mafraq Hospital. Open repair with mental patch done in 34 patients (47.9%) and laparoscopically in 37 patients (52.1%). No cases of laparoscopy converted to laparotomy.

Results: The data demonstrates homogeneous results for the outcome variables of morbidity and complications, while operation time and hospital length of stay differ significantly. Statistical significance could not be reached for any of these variables, although odd ratios were consistently in favor of the laparoscopic repair. Similarly, the laparoscopic approach resulted in a lower rate of minor complications (10% vs. 23%). Total lengths of stay post open repair made of 4.2±1.2 days, after laparoscopic repair 3.6±0.9 days. At the same time there were observed longer operating times for laparoscopic repair of PPU which constituted 62±10.6 minutes whereas open repair took only 45±12.9 minutes. Peritoneal lavage has been a factor of prolonged duration of laparoscopic surgery.

Conclusion: Laparoscopic repair of a perforated peptic ulcer is an amenable and feasible technique within the hands of experienced laparoscopic surgeon. Current evidence does not clearly demonstrate the advantages of laparoscopic versus open repair. Growing interest in the laparoscopic approach may encourage the design of additional randomized trials to analyze its efficacy compared with the open approach.

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