

Laparoscopic Versus Open Appendectomy: Retrospective Comparison of 1000 Cases

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Background: Controversy still continues about the advantages of laparoscopic appendectomy versus open appendectomy. It is not clear cut compared to laparoscopic cholecystectomy where it has replaced the open method.

Objective: The aim of this study is to compare laparoscopic and open appendectomy to determine the length of hospital stay and postoperative in-hospital morbidity.

Design: Retrospective study.

Setting: Surgical department, Salmaniya Medical Complex, Bahrain.

Method: Five hundred cases of laparoscopic appendectomy compared to 500 similar cases of open surgery between 1st January 2000 and 31st December 2006. The records of these patients were reviewed for personal characteristics, type of the procedure, operative time, length of hospital stay and in-hospital morbidity.

Result: Laparoscopic appendectomy (LA) group consisted of 502 cases and the open surgery (OA) group consisted of 500 cases. The average age was 24.4 years ranging from 5 years to 67 years. The length of hospital stay averaged 4.85 days ranging from 2 to 30 days. The average operative time for the laparoscopic group was 45 minutes but ranged from 20 to 90 minutes. The postoperative in-hospital morbidity included port-site wound infection in 5 cases, intra-peritoneal pus collection in 3 cases and one case of iatrogenic jejunal injury identified intra-operatively. The morbidity rate for this group was 1.8%. There were no registered mortalities after laparoscopic appendectomy.

In the open surgery group, the average age was 22.6 years ranging from 4 years to 63 years. The length of hospital stay averaged 5.4 days, ranging from 3 to 40 days. The average operative time for the open group was 40 minutes, ranging from 30 to 75 minutes. The postoperative in-hospital morbidity included wound infection in 15 cases, intra-peritoneal collection in 8 cases, enterocutaneous fistula in 3 cases and iatrogenic cecal injury in 3 cases which were repaired immediately. The morbidity rate for this group was 5.8%. There were two mortalities after open appendectomy.

Conclusion: Laparoscopic appendectomy has significantly lower morbidity and mortality rates compared to open surgery. However, there is no difference in length of hospital stay or operative time.

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