TUBE CECOSTOMY IN APPENDICULAR MASS OR ABSCESS: A REVIEW OF 21 CASES

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ABSTRACT
Objective: To assess the efficacy of tube cecostomy in preventing postappendicectomy fecal fistula formation for appendicular mass or abscess.
Study Design: Descriptive case series.
Setting & Duration: Department of Surgery, Unit II, Karachi Medical and Dental College and Abbasi Shaheed Hospital, Karachi from January 2002 to December 2007.
Methodology: Clinical records of all patients who underwent tube cecostomy during appendicectomy for appendicular mass or abscess were selected. Postoperative complications including pericatheter leak, early catheter dislodgement, catheter stuck and fistula after tube removal were noted in proforma. The SPSS version 11 was applied to the data to analyze frequencies and percentages.
Results: A total of 21 patients were recruited from clinical records having male to female ratio been 2.5:1. Minor pericatheter leak with skin excoriation occurred in 2(9.5%) patients whereas catheter stuck up was observed in one (4.7%) patient. All were recovered completely. None of the patient in this study showed cecal fistula after cecostomy tube removal.
Conclusion: Tube cecostomy is an effective and simple measure in preventing fistula formation after appendicectomy for appendicular mass or abscess.

KEY WORDS: Tube Cecostomy, Appendicectomy, Postappendicectomy Abscess, Fistula

INTRODUCTION

Early appendicectomy in cases of appendicular mass or abscess is an effective treatment strategy in this modern era due to low cost, reduced hospital stay and good patient compliance.[1-3] However, this surgical modality seems to be associated with a high risk of post-operative complications like intra-abdominal abscesses, ileal perforations, wound infections and enterocutaneous fistulae.[4-6] Amongst these, postappendicectomy fecal fistula is a rare but serious complication which prolongs hospital stay and increases cost of treatment.[7]

Appendicular mass or abscess is one of the outcomes of acute appendicitis and is associated with severe inflammation involving the base of appendix and adjoining cecal wall. Dissecting out an inflammed edematous appendix from surrounding tissues can be hazardous and result in abscess and fistula formation.[8,9] Tube cecostomy can prove to be a rational approach in preventing postoperative abscess and fistula formation in complicated situation.

This study was designed to assess the efficacy of tube cecostomy in preventing fistula formation after appendicectomy for appendicular mass or abscess.

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METHODOLOGY

This retrospective case series was conducted by Department of Surgery, Unit II of Abbasi Shaheed Hospital, Karachi. Clinical records of all patients who underwent tube cecostomy during appendicectomy for appendicular mass or abscess between January 2002 to December 2007 were recognized. Patient's demographics (like age and gender), operative findings and procedure details, and complications like pericatheter leak, tube dislodgement, stucking of tube and fistula formation after catheter removal were recorded on proforma. The data was compiled and the results tabulated using SPSS 11 for frequencies and percentages.

RESULTS

A total of 21 patients were recruited from clinical records that underwent for tube cecostomy during appendicectomy over the six year period. There were 15(71.4%) males and 6(28.6%) females. The male to female ratio was 2.5:1. The ages of the patients ranged from 16-49 years with mean (± SD) age as 28.19 (+ 9.62) years. Eleven (52.4%) patients had gangrenous appendix peroperatively whereas 10(47.6%) with perforated appendix with or without abscess formation (Table I). All patients were accessed through right lower para-median incision by junior residents under supervision of consultant, having severe inflammation involving the adjacent cecal wall. After performing appendicec-tomy, 18 French size Foley's catheter was placed in cecum through appendicular stump and balloon inflated with 10 ml distilled water. Catheter was brought out through anterior abdominal wall and cecum was stitched to the peritoneum via catgut suture. In all patients, drain was placed in the paracolic gutter. Postoperatively, volume of discharge was noted regularly and on 10th postoperative day, cecostomy tube was removed.

Neither any major morbidity nor reoperation for catheter-related problems was noted in this study (Table II). Minor pericatheter leak with skin excoriation occurred in 2(9.5%) patients. In one (4.7%) patient, catheter was stuck due to blockage of water side channel of Foley's. This was overcome by pricking the balloon of Foley's with 22 gauge spinal needle along the track of catheter. After removal of tube, discharge persisted for 2-3 days until the track closed spontaneously.

Table I. Peroperative findings

Gross Features	No.	%
Gangrenous appendix	11	52.4
Perforated appendix with abscess	7	33.3
Perforated appendix without abscess	3	14.3

DISCUSSION

Although tube cecostomy is a recognized procedure in variety of conditions like colonic pseudo-obstruction (Ogilvie's syndrome)[10], cecal perforation and cecal volvulus[11,12] where tube acts as a gaseous vent to expel colonic gases thereby preventing leakage of fecal matter into the peritoneal cavity[13], its role in surgical management of appendicular mass or abscess has not been evaluated extensively and limited data available in literature.

Postoperative morbidity rate is significant after performing appendicectomy on appendicular mass or abscess. It is approaching 32% as noticed by Lewin in their study.[14] This is due to appendicectomy stump dehiscence and injury to surrounding structures resulting in abscess and/or fistula formation, as mentioned by Rintoul and Ellis[15,16]. Thomson and Lane advocated ileostomy but this aggressive approach in benign pathology is not well accepted.[17,18] Hence, the utilization of tube cecostomy seems to be quite justifiable and associated with least complication rates.

In this study, no major morbidity was noted and all patients showed excellent recovery after removal of cecostomy tube, as previously reported by Law and Ellis in their case report of two cases of sloughed appendix.[19] A small group of patients developed minor complications such as pericatheter leak (9.5%) with skin excoriation and retained catheter (4.7%). All these complications were clinically manageable without causing any long term morbidity. These results were nearly comparable to the study conducted by Ali and Javaid.[7] They observed pericatheter leak in 14% and catheter being stuck in 2% of cases. In contrast, they also noticed premature dislodgement of tube; however, in the presented study, none of the patient experienced this morbidity. Fistulous

Table II. Complications of tube cecostomy

Gross Feature	No.	%
Pericather leak	2	9.5
Early catheter dislodgement	-	-
Retained Catheter	1	4.7
Fistula after catheter removal	-	-

track resulting from removal of catheter healed spontaneously in 2-3 days in this series.

CONCLUSION

Tube cecostomy is relatively safe and effective way of preventing cecal fistula formation after appendicectomy for appendicular mass or abscess especially when performed by junior residents. Furthermore, controlled fistulous track after withdrawing of tube is spontaneously closed in all patients.

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