



COMPLICATIONS AFTER OPEN APPENDECTOMY FOR COMPLICATED APPENDICITIS

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ABSTRACT **Background:** Open appendectomy is established method in the treatment of complicated appendicitis. Want to study open appendectomy techniques efficacy in complicated appendicitis cases in our hospital setting. High variety of postoperative complications reported in different series for complicated appendicitis.

Material And Methods: This prospective interventional clinical study analyzes 30 patients operated with open appendectomy due to complicated appendicitis, with an end point of comparing the intra and postoperative complications.

Results: The complication rate after open appendectomy for complicated appendicitis can be as high as 26.6%. from minor to major complication which is comparable with similar studies carried out in other institutes.

Conclusion: Certain significant advantages of the open appendectomy as incidence of wound infection is found same as other hospitals and no major post appendectomy complication observed, it still good method of doing appendectomy in emergency setting where laparoscopy can not be done or not available. The rate of complication which is comparable with similar studies carried out in other institutes.

KEYWORDS : complicated appendicitis, open appendectomy, complications.

INTRODUCTION:

Acute appendicitis (AA) remains a diagnostic and therapeutic challenge as one of the most common abdominal emergencies with still imprecisely explained etiopathogenesis. The inflammatory appendicular process can subside with or without given antibiotic therapy. Otherwise, its progression can lead to an irreversible changes in the appendicular wall, finally resulting in perforation with all the following consequences. At the same time, it represents the complicated form of acute appendicitis (complicated appendicitis – CA).

Complicated appendicitis is described as gangrenous appendicitis with or without macroscopically visible perforation or limited peri-appendicular abscess. In cases of free perforation, a diffuse secondary peritonitis can be present.

More than 90% of AA cases are treated with open surgery. The complications associated with the procedure can be intra and postoperative.

The postoperative ones can be graduated in minor and major complications.

Minor post-operative complications are presented as sterile wound collections (seroma, hematoma), wound infection and paralytic ileus.

Major complications, always expected and analyzed in the postoperative period, are bleeding, intraabdominal abscess (IAA), mechanical bowel obstruction, appendicular stump leak with stercoral fistula and laparotomy wound disruption (in open appendectomy). Some of them require additional intervention with or without general anesthesia.

Rate of postoperative complications ranges between 3% and 28.7%. Major factor is the complicated appendicitis itself.

OBJECTIVES:

This study assesses the postoperative complications in patients operated for complicated appendicitis with open method.

MATERIAL AND METHODS:

Study Design:

This prospective interventional clinical study is conducted in our hospital in the period of 12 months.

Patients - 30 patients with the age of 15 and more were included in the study in which a complicated appendicitis was revealed during open surgery.

Grades of complications were - appendicular gangrene, appendicular perforation/rupture, periappendicular abscess and diffuse purulent peritonitis.

Operative Techniques:

For open appendectomy, McBurney and right pararectal incisions were used. In cases of diffuse peritonitis a routine generous abdominal irrigation and suction was used. Abdominal drainage was used routinely.

Perioperative interventions, treatment and follow up. Standard antibiotic prophylaxis was administered one hour prior the incision with 1 g of ceftriaxone. Additional intra operative 500 mg of Metronidazole was given intra operatively. Both were continued in the next five postoperative days in doses of 3x1 g and 3x500 mg, respectively.

The postoperative follow up period duration was 30 days.

RESULTS:

The patients were divided in terms of gender and age, the patients were presented as homogeneous groups.

Male gender dominated (60%). Female group-40%

Leukocyte count (12 605±3550/mm³),

Age of patients mean (38.6—14.2 yrs)

Table 1. Patient Characteristics

Variable	OA
Operated n	n = 30
Male n (%)	18 (60)
Female n (%)	12 (40%)
Age (mean±SD)	38.6±14.2
Leukocyte (mean±SD)	12605±3550/mm ³

Intraoperative Finding:

Gangrenous appendicitis has total (4 cases of 30)---(13.3%)

Diffuse peritonitis was in (6 cases of 30) ---(20%),

perforation was present in (15 cases of 30) ---(50%)

periappendicular abscess in (5 cases of 30)-- (16.6%).

Postoperative complications occurred in 8 patients (26.2%),

Table 2. Intraoperative Data

Variable	OA
Intraoperative finding	
1.(%)Gangrene	4 (13.3%)
2.Perforation/rupture&	15 (50%)
3.Abscess	5 (16.6%)
4.Diffuse peritonities	6 (20%)
Operative time (mean±SD)	65 min±18min

In the OA group there were 9 patients with complications (8 minor). Wound seroma was noted in 2 patients, and wound infection occurred in 4 patients. One patient presented with allergic dermatitis.

Table 3. Postoperative Data And Complications

Variable	OA
Seroma/hematoma n (%)	2 (6.6%)
Wound infection n (%)	4 (13.3%)
Pyrexia n (%)	1(3.3%)
Allergic dermatitis n (%)	1 (3.3%)
Postoperative mechanical bowel obstruction n (%)	0
IAA (%)	0
Stercoral fistula (%)	0
Operative reintervention n (%)	0
Length of stay (mean±SD)	6.5=1.5
Readmissions	0
Overall morbidity n(%)	8 (26.6%)

Length of stay was the open group with median length of stay of 6.5+ 1.5 days.

DISCUSSION:

At it is written in the introduction of this study, the complication rate after open appendectomy for complicated appendicitis can be as high as 26.6%.

Postoperative complication occurrence is associated with the intra operative finding, in this case, the difficult finding of complicated appendicitis. It is a significant risk-factor for postoperative complications by itself.

The severity of the inflammatory process can prolong the operative time in open appendicitis especially when an additional adhesiolysis, partial resection of great omentum, irrigation and suction of the abdominal cavity are required.

Regardless of the intraoperative finding, the surgeons experience and the technical capabilities are important factor that has an impact on the operative time.

Wound infection when compared with the other complication are around 13.3 % is found in (4 patients of 30) operated patients.

While seroma and hematoma collection is present in (2 patient of 30) (6.6%)

Pyrexia and allergic dermatitis is (1 each of 30) (3.3%) cases No major complication found like intra abdominal wound collection ,intestinal obstruction and stercoral fistula –not found in any cases.

The length of stay in the is 6.5 =1.5 days.

According To :

Ref 1 –the total complication rates were (28.7%) of total operated cases, surgical site infection is 9.5 percent which in our series is 19.9%. Ref no-2 the morbidity rates of complicated appendicitis is-19.9 % which is comparable to our statistics.

CONCLUSION:

Open appendectomy is established method in the treatment of complicated appendicitis, as a safe of appendectomy procedure , in our hospital setting open appendectomy is primary procedure in emergency setting and the complication rates found to be consistent with the complication rates of other hospitals which we have derived from our reference papers .

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