

Non Burial of the Appendix Stump During Appendectomy a Safe Procedure

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Abstract

A prospective study comparing the surgical technique of simple ligation, with ligation and stump burial during a appendectomy for non complicated appendicitis, was done for 160 patients from april 2000 to april 2003 in baquba general hospital .

The patients were randomized into tow groups. In group I simple ligation and group II ligation and stump invagination was carried out, the patient was followed up for tow years to check for post operative complication.

We found the incidence of wound infection and ileus was higher in group II , which take me conclusion that simple ligation of the appendix stump is safe better during appendectomy .

Key words: Appendicitis , appendix , stump , invagination , complications .

Introduction

Appendicitis is the most common acute surgical condition of the abdomen, and obstruction of the lumen is the dominant factor in the production of acute appendicitis.

The first appendectomy was performed by amyand , surgeon to wastminister and st. George hospital and sergeant surgeon to george in 1736 [2].

The technique of appendectomy may vary from surgeon to surgeon. Starting from the skin incision to the ligation and invagination of the stump . the optimum management of the appendectomy stump has frequently been discussed and detailed historical review was made by ochsner and lilly [3] .

Some sergeons prefer invaginating the stump by means of purse-string stitch or z-stitch doubly invaginate the stump.

Simple ligation without invagination and burying the appendix stump was introduced by Keronlein in 1884 [3]. Some surgeons criticize the procedure as leading to increased incidence of wound infection and peritoneal adhesions.

In this study the surgical procedure for the stump management comparing ligation only, with ligation and invagination and the results were compared with the international literatures.

The traditional method of ligation and inversion has the advantages that peritonealization and hemostasis are secured still the risk of intramural abscess of the caecum can not be neglected. In our study, we discovered that stump burial can not only be omitted from the procedure but also with better post operative results.

Patients and Methods

A total number of 160 patients were conducted in my study between the ages of 10-60 years. The diagnosis of acute appendicitis was largely made on clinical examination with simple lab investigations and confirmed during surgery.

Patient with perforated appendicitis, appendicular abscess or mass was excluded from the study. Patients were randomly divided into two groups. In group I the appendix stump was simply ligated following removal of the appendix. In group II, stump invagination with chromic 2/0 suture by purse-string or Z-stitch was done, all the operations were done by 3 surgeons and followed up during the two weeks, 2 months and 2 years post operative period, and their symptoms regarding the occurrence of wound infection, bowel obstruction were evaluated.

Results

160 patients were included in the study from April 2000-April 2003, simple silk ligation was done for group I n:8 and ligation with burial of the appendix stump was done for group II n:80 pt.

Post operative wound infection was noticed in 11 pt. (13.75%) in group I and 14 pt. (18.75%) in group II. P value 0.05 which is significantly not different in the two groups.

There is early return of the bowel sound in group I with demonstrable difference 52 pt. (65%) have positive bowel sound, compared with only 12 pt. (15%) in group II.

At the first post-operative day.

The frequently of post . operative ileus was more in group II during the first month which may very well be due to simple fibrinous adhesions, 9 pt. (11.25%) in group I and 24 pt. (30%) in group II: P= 0.05 which is significantly higher in group II.<value

Non case of post. Operative major complications including peritonitis, residual abscess and intestinal obstruction was noticed in both groups during the post. Operative period and follow up (table 1).

Table (1): incidence of post. Operative complications in both group

	Group I N:80 pt.	Group II N:80 pt.	P-value
Post. Operative wound infection	11pt. 13.75%	14pt. 18.75%	0.05>
Early return of bowel sound	52pt. 65%	12pt. 15%	-
Post. Operative ilues (1month later)	9pt. 11.25%	24pt. 30%	0.05<
Major complications	Nil	Nil	-
* peritonitis	=	=	-
*residual	=	=	-
*intestinal	=	=	-
*other complications	=	=	-

Discussion

A cute appendicitis is the most common surgical emergency that is common in the second decade of life [4].

During appendectomy some surgeon do simple ligation , while others still prefer to invaginate it by a purse –string suture or z-stitch the reason given for this burial of the stump are safety against ligature slipping or blow out of the appendix stump , less incidence of wound infection (5). On the other hand those who do simple ligation found it simpler, less time consuming and leaving the anatomy of the caecal wall intact (6). With no difference in the incidence in the incidence of the post operative wound infection or paralytic ilus, how ever

some report show increasing incidence of residual abscess over the caecal wall due to invagination [3] .

In our study no significant difference in the incidence of wound infection in both groups, which was also observed by engstrom [3]. Waters [7]. And Dass[8].

No serious post. Operative complications were noticed in both groups, which is similar to report by different authours in the international literature [7,8].

Conclusion

It is concluded that, we can omit, the step of stump invagenation and perform simple silk ligation of the appendix stump during appendicectomy which will shorten the operative time, with less incidence of wound infection , post operative iluse and short hospital stay .

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