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Key Words

Acute appendicitis, emergency
appendectomy, laparoscopic
appendectomy, interval
appendectomy

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Received: 25 September 2023

Accepted:

Published:

Citation: Tapan Saha, 2023. A
Retrospective Observational Study
Comparing the Post Operative
Complications of Emergency
Appendectomy with that of
Interval Appendectomy at TMC
and Dr Bram Teaching Hospital: A
Semiurban Hospital in North East
India. Res. J. Med. Sci., XX: 00-00,
doi:

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A Retrospective Observational Study Comparing the Post Operative Complications of Emergency Appendectomy with that of Interval Appendectomy at TMC and Dr Bram Teaching Hospital: A Semiurban Hospital in North East India

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ABSTRACT

Acute appendicitis is the commonest cause of acute abdomen requiring surgical intervention. However, this clinical condition is sometimes managed conservatively till interval Appendectomy is performed. Moreover there is variable reports of post-operative complications between emergency and delayed interval open Appendectomy. In recent times laparoscopy is known to further reduce the complication rate. Although, laparoscopic approach which is not the gold standard is not done in our centre the present retrospective analysis will highlight the complication profile in the open technique and may opt for alternative approach i.e., laparoscopy. To Compare the post-operative complications of open emergency appendectomy with that of interval appendectomy. This retrospective study was conducted at department of general surgery of Tripura Medical College and Dr. BRAM Teaching Hospital, Agartala, Tripura. A total of 40 patients were selected for this study. Immediate post-operative complication like Post-operative fever, ileus and local wound infection were more in the emergency appendectomy group compared to interval appendectomy. However none of the patient reported faecal fistula in the current study. This retrospective study result indicated that Appendectomy on emergency basis can be done safely with acceptable complication. However the potential complication with emergency Appendectomy should be counselled to the patients well before hand.

INTRODUCTION

Acute appendicitis is the commonest cause of acute abdomen requiring surgical intervention. However this clinical condition is sometimes managed conservatively till interval Appendicectomy is performed^[1].

Moreover there is variable reports of post operative complications between emergency and delayed interval open Appendicectomy. In recent times laparoscopy is known to further reduce the complication rate. Although, laparoscopic approach which is not the gold standard is not done in our centre the present retrospective analysis will highlight the complication profile in the open technique and may opt for alternative approach i.e., laparoscopy^[2,3].

Aims and objectives:

Aims: To compare the post-operative complications of Open emergency Appendicectomy with that of interval Appendicectomy

Objectives:

- To compare the post-operative complications of the above two procedures in terms of wound infection (surgical site infection)
- Post operative pyrexia
- Post operative ileus
- Faecal fistula

MATERIALS AND METHODS

Study centre: TMC and DR. Bram Teaching Hospital, Hapania. IPD Records.

Study population: The present retrospective study included 40 patients (20 in each group retrospectively) in each group i.e., Emergency Appendicectomy and interval Appendicectomy between January 2022 to February 2023 on retrospective basis. Ethical clearance was obtained and the clinical parameters of Aim and objectives were collected from MRD section IPD Records.

Sample size: Complete enumeration technique was followed. During data collection period, the study subjects fulfilling inclusion and exclusion criteria's were included in the study.

MATERIALS AND METHODS

The present comparative study included 50 patients (25 each group retrospectively) in each group i.e., emergency appendicectomy and interval appendicectomy between January 2022 to February 2023 on retrospective basis and the clinical parameters of Aim and objectives were collected from MRD section.

Inclusion criteria: Patients recruited for the study are those who will be diagnosed with acute appendicitis and treated by Emergency Appendicectomy and interval Appendicectomy between January 2022 to 3rd February 2023. For prospective group sample will be collected between 3 February 2023 to 4 July 2023.

Exclusion criteria: Patients with Appendiceal cancer.

Data analysis method: The data was recorded in the Proforma and an analysis was made in terms of objectives of the study using comparative and inferential statistics will be done. All data will be entered in Microsoft excel data sheet.

Does the study require any (a) Investigation or (b) interventions to be conducted on patients?

- No experimental interventions will be carried out as these two procedures are already practised

Data collection tool: Pre tested, structured questionnaire having two parts.

- Part A:** Socio-demographic information
- Part B:** Diagnosis and complication related information

Outcome variables: Wound infection (surgical site infection):

- Post operative pyrexia
- Post operative ileus
- Faecal fistula

RESULTS AND DISCUSSIONS

A total of 40 participants were participated in the present study (Table 1 and 2).

Table 1: Comparison of post oper fever, ileus, wound infection and faecal fistula with method

	Methods	Present	Frequency	Percentage
Post oper fever	Open emergency appendicectomy	Yes	20	100.0
	Interval appendicectomy	Yes	4	20.0
		No	16	80.0
		Total	20	100.0
Post oper ileus	Open emergency appendicectomy	Yes	19	95.0
		No	1	5.0
		Total	20	100.0
	Interval appendicectomy	Yes	4	20.0
Wound Infection		No	16	80.0
		Total	20	100.0
	Open emergency appendicectomy	Yes	7	35.0
		No	13	65.0
		Total	20	100.0
	Interval Appendicectomy	Yes	1	5.0
		No	19	95.0
		Total	20	100.0
Faecal fistula	Open emergency appendicectomy	No	1	5.0
	Interval Appendicectomy	No	0	0.0

Table 2: Comparison of post oper fever, ileus, wound infection and faecal fistula with sex

	Sex	Frequency	Percentage
Post oper fever	Male		
	Yes	12	60.0
	No	8	40.0
	Total	20	100.0
	Female		
	Yes	12	60.0
Post oper Ileus	No	8	40.0
	Total	20	100.0
	Male		
	Yes	11	55.0
	No	9	45.0
	Total	20	100.0
Wound infection	Female		
	Yes	12	60.0
	No	8	40.0
	Total	20	100.0
	Male		
	Yes	4	20.0
	No	16	80.0
	Total	20	100.0
	Female		
	Yes	4	20.0
	No	16	80.0
	Total	20	100.0

In the present retrospective study, post-operative pyrexia was more common in the emergency Appendicectomy group as compared to interval appendicectomy group. Appendicular lump deteriorated on conservative management were also included^[4]. Post-operative ileus was also noted more in the emergency group but recovered well^[5]. Local Wound infection also prolonged the stay more in the emergency group without any serious complication^[6]. However the dreaded complication of faecal fistula was noted in one of the patient in the emergency group which also recovered well^[7].

CONCLUSION

This retrospective study result indicated that Appendicectomy on emergency basis can be done safely with acceptable complication. However,

the potential complication with emergency Appendicectomy should be counselled to the patients well before hand.

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