ORIGINAL RESEARCH PAPER

Volume-8 | Issue-6 | June-2019 | PRINT ISSN No. 2277 - 8179

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

STUDY OF CLINICO-PATHOLOGIC PROFILE OF PATIENTS OF ACUTE APPENDICITIS IN A RURAL TERTIARY CARE CENTRE

Surgery

Dr Deepak Singla Assistant Professor, Dept Of General surgery BPS GMC Khanpur Kalan

Dr Pushpendra Malik* Associate Professor, Dept Of General surgery BPS GMC Khanpur Kalan *Corresponding Author

Dr Mukesh sangwan Associate Professor, Dept Of General surgery BPS GMC Khanpur

Dr M K Garg Prof & Head, Dept Of General surgery, BPS GMC Khanpur Kalan

ABSTRACT

Acute appendicitis is a common problem in children and early adult life. Appendicectomy is done as an emergency procedure to reduce morbidity and mortality. The present study was conducted among 192 patients diagnosed as acute appendicitis in a rural tertiary care hospital during a period of 2 years from june 2015 to june 2017 to find out clinico-pathological profile of such patients . All patients underwent appendicectomy and were followed postoperatively.

KEYWORDS

Appendicitis, post-operative, retrocaecal

SUMMARY

Despite the phenomenal advances in medical science and all the diagnostic and investigative tools at our disposal today ,diagnosis is still essentially clinical as no single investigation was diagnostic of appendicitis in 100% of cases. The accuracy of clinical examination in diagnosing acute appendicitis is 70 to 87% . Approximately 20% to 33% of patients with suspected acute appendicitis have atypical findings making clinical diagnosis difficult..ThIS retrospective STUDY was analysis was done in 192 patients over a period of 2 years who were operated after getting diagnosed as patients of acute appendicitis by clinical,radiological and laboratory parameters and their clinical and demographic features were studied.

INTRODUCTION

Acute appendicitis has a lifetime risk of 8.6% and 6.7% in men and women respectively . The accuracy of clinical examination in diagnosing acute appendicitis is 70 to 87% . Approximately 20% to 33% of patients with suspected acute appendicitis have atypical findings making clinical diagnosis difficult. Diagnostic errors are common resulting in median incidence of perforation 20% and negative appendicectomy rate of 2% to 30%. This retrospective study was undertaken to determine the clinical symptoms and signs of appendicitis in adults aged 15 years and above.

MATERIALS AND METHODS

192 patients with diagnosis of acute appendicitis were included in this retrospective study. Study duration was 2 years.The analysis was done on patients who were operated after getting diagnosed as patients of acute appendicitis by clinical,radiological and laboratory parameters. The clinical symptoms were recorded and demographic data collected.All the patients were followed up for immediate and remote complications. Appropriate treatment was given wherever complication was noted. The patients who were not operated or managed conservatively were excluded. The preoperative diagnosis was compared with final histopathological report .

RESULTS

Out of 192 patients, 55% were male and 45% were females. Nearly 71 % patients belonged to the age group of 15-30 , incidence decreasing with age with 1% of the patients above the age of 62 (Table 1).

Table 1: Distribution of age and sex of the study population

Age-group	Male	Female	Total	%
15-30	70	65	135	71
31-46	30	18	48	25
46-61	05	02	7	3
Above 62	02	00	2	01
Total	107	85	192	100

Majority of the patients presented within 48 hours -1week after the onset of symptoms incidence being 65% with only 2% presenting after 2 weeks . (Table-2)

Table-2 Duration of symptoms before presentation

Duration of symptoms	Patients	(%)
Within 24hours	48	25
48 hours-1week	122	65
>1 week-2weeks	20	8
>2weeks-1month	2	2

Abdominal pain was the most common symptom found in such patients with nearly all patients(100%) had pain abdomen. Anorexia, rather desire not to eat ,was the next most common symptom with nearly 96% of the patients presenting with this symptom. Other less common symptoms encountered were nausea(68%),vomiting(59%) and fever(29%) (Table-3)

Table-3 Clinical features of patients with histological confirmed appendicitis

Clinical features	Patients (%)
Abdominal pain	192(100)
Anorexia	180(95.6)
Nausea	130 (68)
Vomiting	113 (59)
Constipation	29(15.9)
Diarrhea	19(10.6)
Fever	56(29.1)
RLQ tenderness	152(80.3)
Rebound tenderness	148(81)
Guarding	156(82)

Out of 192 patients,79% patients were found to have total leucocyte count more than 11000. Intraopertively ,75% of appendixes were found to be inflamed and 25% were found to perforated and gangrenous (Table-4)

Table-4 Lab investigation and clinical diagnosis.

Total leucocyte count	Acute Appendicitis	Gangrenous	Ruptured Appendicitis
>11000 158(78.9%)	118(55.9%)	23(15.2%)	17(10.4%)
below 11000 34(21.1%)	26(16.1 %)	5(3.1%)	3(2.6%)
192	144	28	20

Intraopertively, the most common position of the appendices was found to be retrocaecal in nearly 82% of the patients and least common being preileal(2.5%) with fecolith present in around 18% of the patients (Table 5,6)

Table -5 Distribution of position of appendix.

Position	Number	Percentage
Retrocaecal	144	75
Pelvic	36	19
Postileal	7	3.5
Preileal	5	2 .5
Total	192	100

Table-6 Intraoperative findings

Other pertinent fi ndings	Number of cases	Percent
Fecolith	32	18
Perforation	26	14
Carcinoid	1	0.5

Histologically,acute suppurative appendicitis was the most common finding present in around 40% of the patients and appendix with lymphoid hyperplasia was found in nearly 10% of the patients(Table-7)

Table-7 Histopathology

Histopathologic type	Number of cases	Percent
Early acute appendicitis	60	34.75
Appendix with Lymphoid Hyperplasia	18	10.0
Acute suppurative appendicitis	80	40.26
Acute gangrenous appendicitis	34	16.0

About 8% of the patients developed wound infection after the surgery (Table-8) and around 1% developed other complications like wound gaping, adhesive small bowl obstruction. All these patients were treated appropriately and discharged in good condition

Table-8 Complications

Complications	Frequency	Percent (%)
No Complication	176	91.4
Wound infection	1 4	7.8
Others	2	0.8
Total	180	100.0

No delayed complications were observed in follow up of the patients. No negative appendicectomy and mortality was observed in this study

DISCUSSION

Acute appendicitis is the most common cause of acute abdomen and is the most frequent indication for emergency surgery (Tranter and Schumpelick, 1997; Ohene–Yeboah, 2006; Brown, 1991). The exact incidence of acute appendicitis is not known but clinical observation shows that it is the most common emergency condition presenting to a resident surgeon .. Timely surgical intervention is mandatory to prevent morbidity and mortality which is about 2%[1]. Furthermore, there are only speculations regarding its aetiology and pathogenesis without definite scientific evidences despite all the phenomenal medical advancements and development of variety of diagnostic and investigative tools[2]...Acute appendicitis can occur at any age but studies shows that about 70 – 80% of the cases occur in patients less than 30 years of age. (Chang, 1981).In The present study it was observed that acute appendicitis is found more frequently in male patients (55%) than females, incidence being similar to 60% in a study conducted by Chaudhari YP et al in Maharastra, India[3]. This study has found out that most of the patients affected were in the age group of 15 to 30 years which is supported by a study conducted by Rothrock et al[4] . The present study concluded that pain abdomen was present in 100%, vomiting in 59% and fever in 29% of the patients which is almost close to 99%, 56% and 34% respectively, a study conducted by Kamath P et al.[5] Intraopertively, the most common position of the appendices was found to be retrocaecal in nearly 82% of the patients and pelvic in 19% of the patients which is similar to a study conducted by Salwe NA et al incidence being 80% and 17% respectively[6]. In a study conducted by et al histopathologic distribution of acute appendicitis was found to be consisting of early appendicitis 35.33%, suppurative appendicitis 41.20% and gangrenous appendicitis 13.47% which is comparable to the fi ndings in our present study, incidence being 34.75%,40.26% and 16% respectively[7]. In this study , it was noticed that 9% of the patients had postoperative complications due to wound infection,adhesive bowel obstruction etc which is little lower to 11% in a study conducted by Jess P[8]

CONCLUSION:

This study indicates that despite the phenomenal advances in medical science and all the diagnostic and investigative tools at our disposal today ,diagnosis is still essentially clinical as no single investigation was diagnostic of appendicitis in 100% of cases..Abdominal pain associated with anorexia forms the hallmark of the clinical diagnosis.Negative appendectomy means unnecessary operation and cannot be justified with the availability of expertise and modern imaging techniques.In our study,there has been no negative appendectomy justifying the assessment of appendicitis by the consultant as has been the practise in our department.Presence of anorexia rather desire not to eat is very important symptom which has not been described extensively in previous studies.

REFERENCES

1. Lohar HP. Epidemiological aspects of appendicitis in a rural setup. Medical J DY Univ. 2014;7(6):753-7.
2. Brunicardi FC, Andersen DK, Billiar TR. The appendix. In: Schwartz's principles of surgery. 9th Edition. New York, NY: McGraw-Hill. 2012:2043-67.
3. Chaudhari YP, Jawale PG. Prevalence of appendicitis at surgery inpatient department of a tertiary care hospital: a descriptive study. Int Med J. 2015;2(11):768-70.
4 Rothrock SG, Pagane J. Acute appendicitis : emergency department diagnosis and management. Ann Emerg Med. 2000;36:39-51. Babu KS et al. Int Surg J. 2017 Mar;4(3):929-931International Surgery Journal | March 2017 | Vol 4 | Issue 3 Page 931
5. Kamath P. A clinico pathological study of appendisectomy cases in a tertiary care hospital in South India. Indian J Applied Research. 2015;5(9):285-6.
6. Salwe NA, Kulkarni PG, Sinha RS. Study of morphological variations of vermiform appendix and caecum in cadavers of western Maharashtra region. Int J Advanced Physiology Allied Sci. 2014;2(1):31-41.
7. Nabipour F, Mohammad BD. Histopathological features of acute appendicitis in Kerman-Iran from 1997 to 2003. American J. Environmental Sci. 2005;1(2):130-32.
8 Jess P, Bjerregaard B, Brynitz S, Christensen J, Kalaja E. Acute appendicitis: prospective trial concerning diagnostic accuracy and complications. Am J Surg. 1981 Feb;141(2):232-4.