

Original article

Histopathological spectrum of appendicitis with clinical correlation in a tertiary care hospital in Rural Ahmednagar, India

**Dr Shubhendu Bharadwaj¹, Dr Ira Bharadwaj², Dr Swaroop N Shashidhar³,
Dr Dharmaraya Ingale³, Dr Baviskar PK⁴**

Assistant Professor¹, Professor², Assistant Professor², Professor³, Professor⁴

¹ - Department of Surgery, Karuna Medical College, Vilayodi, Chittur, Kerala, India.

² - Department of Pathology, Karuna Medical College, Vilayodi, Chittur, Kerala, India.

³ - Department of Forensic Medicine, Karuna Medical College, Vilayodi, Chittur, Kerala, India.

⁴ - Department of Surgery, Rural Medical College, Loni, District Ahmednagar, India

Corresponding author: Dr. Swaroop N Shashidhar, Assistant Professor, Department of Pathology, Karuna Medical College, Vilayodi, Chittur, Kerala, India.

ABSTRACT:

Background: Appendicitis is the most common abdominal emergency in young adults and appendicectomy is the treatment of choice. Appendicectomy not only reduces the morbidity and mortality but also has minimum complications with maximum prognosis. The Present study helps us determine histopathological spectrum of appendicitis with its clinical correlation.

Materials and methods: A total of 127 cases were studied, Sixty cases are from the prospective study over a period of one and half years between May 1991 to October 1992 and sixty seven cases are from retrospective study of cases prior to this period.

Results: The most common histopathological diagnosis among our cases was acute appendicitis (82.6%), followed by chronic appendicitis (7.9%) and acute on chronic appendicitis (6.3%) and in the remaining 3.2% cases it was negative as it turned out to be mesenteric lymphadenitis

Conclusion: Increased depth of knowledge of clinical signs and symptoms along with laboratory diagnosis and radiological interventions helps to reduce reporting of negative appendicectomy on a Histopathology report.

Keywords: Appendix, Appendicitis, Histopathology

INTRODUCTION:

Appendicitis is the most common abdominal emergency in young adults and appendicectomy is the treatment of choice. Appendicectomy not only reduces the morbidity and mortality but also has minimum complications with maximum prognosis.

The clinical diagnostic criteria of appendicitis as a disease entity was first reported by Reginald Heber Fits in 1886. ¹Even after a long period of about more than 120 years from its first depiction this common surgical disease continues to remain a diagnostic problem and can confuse most of the clinicians. Delay in diagnosis definitely increases the morbidity, mortality, and expenditure of management and in equivocal cases, destructive surgical approach can lead to a negative appendectomies rate 20-40%.¹ In spite of advanced diagnostic modalities its diagnosis is mainly clinical one.

The Present study helps us determine histopathological spectrum of appendicitis with its clinical correlation.

MATERIALS AND METHODS:

This is a study of cases of clinically diagnosed appendicitis and operated in a tertiary care hospital in Rural Ahmednagar, India. Out of 127 cases, Sixty cases are from the prospective study over a period of one and half years between May 1991 to October 1992 and sixty seven cases are from retrospective study of cases prior to this period.

Correlation of the clinical assessment with histopathological examination was carried out for each case.

RESULTS:

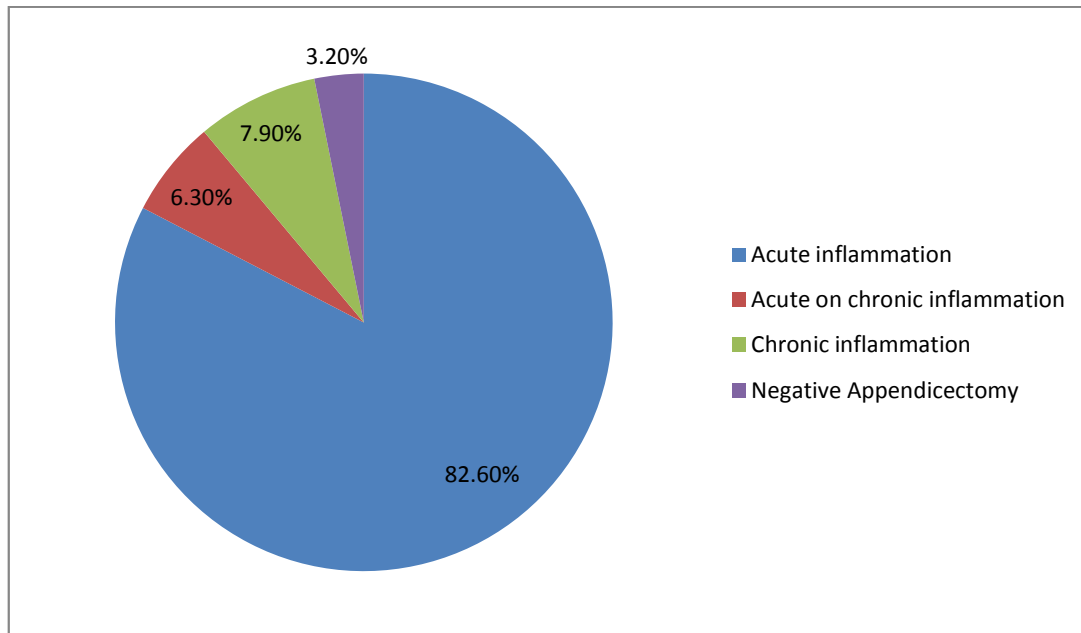
Table 1: Histopathological spectrum of appendicitis

Histopathological report	Number of cases	%
Acute appendicitis	105	82.6
Acute on chronic appendicitis	8	6.3
Chronic appendicitis	10	7.9
Negative Appendicectomy	4	3.2
Total	127	100

In 123 cases (96.8%) the Histopathological examination confirmed the clinical diagnosis of appendicitis and in the remaining 4 cases (3.2%) it was negative as it turned out to be mesenteric lymphadenitis (Table 1, Pie Chart 1).

The most common histopathological diagnosis among our cases was acute appendicitis (82.6%), followed by chronic appendicitis (7.9%) and acute on chronic appendicitis (6.3%) (Table 1, Pie Chart 1)

Pie Chart 1: Histopathological spectrum of appendicitis



DISCUSSION:

Appendicitis requiring appendectomy poses a serious challenge to a surgeon even after the turn of century since it was first done. Increased depth of knowledge about clinical signs and symptoms with radiological intervention and laboratory investigations nowadays has brought some light in diagnosis of appendicitis preoperatively.

The present study conducted among 127 appendicitis patients showed acute appendicitis (82.6%) as most common diagnosis, followed by, chronic appendicitis (7.9%) and acute on chronic appendicitis (6.3%). This is in agreement with studies done by Fitz RH¹, Yogesh PC et al², Sharma S et al³ and Patel MM⁴

In 123 cases (96.8%) the Histopathological examination confirmed the clinical diagnosis of appendicitis and in the remaining 4 cases (3.2%) it was negative as it turned out to be mesenteric lymphadenitis. This is in correlation with study done by Fitz RH¹ but is in contradiction to studies done by Yogesh PC et al², Sharma S et al³ and Patel MM⁴. This can be explained as our study relied only on clinical signs and symptoms and laboratory investigations and no radiological intervention was available preoperatively.

CONCLUSION:

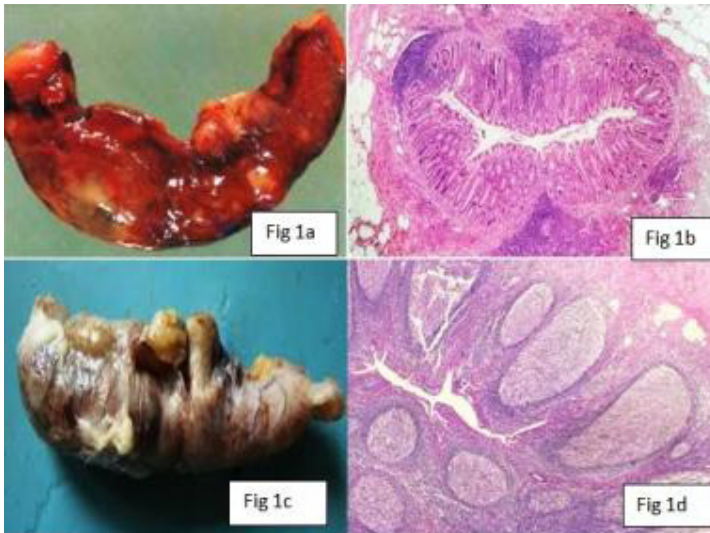
Appendectomy beyond doubt significantly decreases the morbidity and mortality of the patients with appendectomy. Increased depth of knowledge of clinical signs and symptoms along with laboratory diagnosis and radiological interventions helps to reduce reporting of negative appendectomy on a Histopathology report.

Fig 1a: Gross image of Acute appendicitis

Fig 1b: Microscopic image of Acute appendicitis (10x)

Fig 1c: Gross image of chronic appendicitis

Fig 1 d: Microscopic image of Chronic appendicitis (10x)



ACKNOWLEDGEMENT:

(Late) Dr. Jejrkar DA for guiding me and also all Faculty of Department of Surgery and Pathology, Rural Medical College, Loni, District Ahmednagar, India.

REFERENCES:

1. Fitz RH. Perforating inflammation of the vermiform appendix with special reference to its early diagnosis and treatment Am J Med Sci 1886; 92:32-46.
2. Yogesh PC,PrasannaGJ.Prevalence of appendicitis at surgery inpatient department of a tertiary care hospital: A descriptive study.MedPulse – International Medical Journal, Volume 2, Issue 11, November 2015: 768-70
3. Sharma S, Mahajan D, Rasool M, Bashir S, et al. Histopathology of Appendicectomy Specimen: A 5 Year Study. Sch. J. App. Med. Sci., 2014; 2(1B):176-80
4. Patel MM and Shah RJ. Impact of histopathological examination of appendix in context to clinical management of patients.Increased depth of knowledge of clinical signs and symptoms along with laboratory diagnosis and radiological interventions helps to reduce reporting of negative appendicectomy on a Histopathology report.
- 5.