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AN EVALUATION OF THE SEASONAL VARIATION IN ACUTE APPENDICITIS

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BACKGROUND: Acute appendicitis refers to inflammation of the appendix. Although appendicitis occurs most commonly in young adults, it can develop at any age. The lifetime prevalence of acute appendicitis is approximately 7%. Some of the etiological factors of appendicitis include sex, diet, familial susceptibility, winters, presence of obstructive agents. **AIMS:** The aim of this study was to determine if any seasonal variation in acute appendicitis is present. **METHODS AND MATERIAL:** This is a retrospective study of 957 cases that underwent appendicectomy between January 2010 and December for appendicitis and the histopathology confirmed appendicitis were included. Patients with recurrent disease and those who underwent interval appendectomy were excluded. **Statistical Analysis:** Frequency percentages were used in the analysis of data. **RESULTS AND CONCLUSIONS:** A total of 957 patients underwent appendectomies after excluding the patients who did not meet the inclusion criteria 854 patients were selected for the study. In which 465 occurred in summer, old seasons of which, 389 in the c241 in rainy and 148 in the winter season. In this study we concluded that appendicitis is more common during the summer seasons in India. **KEYWORDS:** seasonal variations, acute appendicitis.

INTRODUCTION: Acute appendicitis refers to inflammation of the appendix¹. Although appendicitis occurs most commonly in young adults, it can develop at any age.² The lifetime prevalence of acute appendicitis is approximately 7%³. Some of the etiological factors of appendicitis include sex, diet, familial susceptibility, winters, presence of obstructive agents⁴⁻⁷. Seasonal variation of appendix though documented is one such area in appendicitis which not much discussed upon. In view of this we decided to study seasonal variation in acute appendicitis.

AIMS: The aim of this study was to determine if any seasonal variation in acute appendicitis is present.

MATERIALS AND METHODS: This is a retrospective study of 957 cases that underwent appendicectomy between January 2010 and December 2013 for appendicitis and the histopathology confirmed acute appendicitis were included in the study. Patients with recurrent disease and those who underwent interval appendectomy were excluded. The data was collected using the medical records. The case sheets were evaluated for data needed.

RESULTS: A total of 957 patients underwent appendectomies of which 63 patients underwent interval appendectomies, and they were excluded from the study at the beginning of the study. Of the 894 patients who underwent appendectomies 22 patients had recurrent disease and 18 patients

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had no leukocytic infiltration or features of acute attack in appendicitis in histology hence were excluded from the study. Of the 854 patients studied the analysis was as follows.

Fig. 1: Ratio of total appendectomies to the Various histopathological examination.

Fig. 2: Seasonal Variation in Appendicitis- Overall

Fig. 3: Seasonal Variation In Appendicitis- Division As Per Years

DISCUSSION: In 1886, Reginald H. Fitz, a Harvard pathologist, first described the clinical condition of acute⁸. Acute appendicitis is one of the commonest surgical emergencies⁹. Simple appendicitis can progress to perforation, which is associated with a much higher morbidity and mortality, and surgeons have therefore been inclined to operate when the diagnosis is probable rather than wait until it is certain¹⁰. More common in winter, could be related to viral infections which are more common during those times¹¹. Acute inflammation of the appendix may take a variety of form. A histological criterion for the diagnosis of acute appendicitis is polymorphous leucocytic infiltration of the muscularis mucosa¹².

CONCLUSION: In this study we concluded that appendicitis is more common during the summer seasons in India.

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Study group	Most cases of appendicitis presenting season	Agreement with our study
Mhammad Omran et.al ¹³	Summer	Yes
Noudeh et.al ¹⁵	Summer	Yes
Stein et.al ¹⁵	Summer	Yes

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