



## Acute Appendicitis: Age, Sex and Seasonal Variation

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### Abstract

Acute Appendicitis is most common in the age group of 10 to 20 years but no age is exempt. Over a period of one year in a peripheral hospital, a total of 69 cases were operated for Acute Appendicitis. Out of the 69 patients who underwent Appendectomy, 44 patients were males and 25 patients were female. In our series the highest incidence occurred in the age group of 20-30 years. The highest incidence occurred in the month of October and males were more commonly affected with Acute Appendicitis.

**Conclusion:** The incidence of Acute Appendicitis is more common in males as compared to females. The highest incidence occurs in the age group of 20-30 years. The incidence is highest in the months of October and November.

### Introduction

The Vermiform Appendix is a tubular structure attached to the base of caecum at the confluence of taenia coli. It is approximately 8-10 cm long in adults and represents the underdeveloped distal end of large caecum seen in other animals. In humans it is regarded as a vestigial organ and acute inflammation of this structure is called as acute appendicitis.

### Materials and Methods

In a peripheral hospital in Nasik, over a period of one year, a total number of 69 patients underwent Appendectomy for acute appendicitis. Out of the 69 patients operated upon, 44 patients (63.76%) were male and 25 patients (36.23%) were female. The highest incidence, 27 patients (39.13%) occurred in the age group of 20-30 years.

A total of 11 (15.94%) cases, the highest incidence occurred in the month of October.

**Table 1:** Incidence of Acute Appendicitis over a period of 1 year: Age and Sex distribution:

| Age group   | Males | Females |
|-------------|-------|---------|
| 0-10 years  | 3     | -       |
| 10-20 years | 5     | 2       |
| 20-30 years | 16    | 11      |
| 30-40 years | 14    | 5       |
| 40-50 years | 2     | 3       |
| 50-60 years | 3     | 2       |
| 60-70 years | 1     | 2       |
| Total       | 44    | 25      |

**Table 2:** Incidence of Acute Appendicitis over a period of 1 year: Month wise distribution:

| Month     | Males | Females | Total cases |
|-----------|-------|---------|-------------|
| January   | 2     | 1       | 3           |
| February  | 1     | 1       | 2           |
| March     | 3     | 3       | 6           |
| April     | 4     | 2       | 6           |
| May       | 3     | -       | 3           |
| June      | 1     | 5       | 6           |
| July      | 7     | -       | 7           |
| August    | 5     | 1       | 6           |
| September | 2     | 2       | 4           |
| October   | 7     | 4       | 11          |
| November  | 5     | 4       | 9           |
| December  | 3     | 3       | 6           |

## Discussion

The cause of acute appendicitis is unknown but is probably multifactorial. Luminal obstruction, dietary and familial factors have all been suggested<sup>1</sup>. Appendicitis is the most common abdominal emergency and accounts for more than 40000 hospital admissions in England every year<sup>2</sup>. Appendicitis is most common in the age group of 10-20 years but no age is exempt<sup>3</sup>. Abdominal pain is the primary presenting complaint of patients with acute appendicitis. The diagnostic sequence of abdominal pain, followed by vomiting with migration of pain to right iliac fossa was first described by Murphy but may be present in only 50% of patients<sup>4</sup>. A meta-analysis of the symptoms and signs associated with a presentation of acute appendicitis was unable to identify any one diagnostic finding but showed that a migration of pain was associated with a diagnosis of acute appendicitis<sup>5</sup>. The site of maximum tenderness is often said to be over the Mc Burney's point, which lies two thirds of the way along a line drawn from the umbilicus to the anterior superior iliac spine<sup>6</sup>. Findings on per rectal and vaginal examination may be normal, although tenderness to the right may be present particularly in a pelvic appendix. Tenderness on rectal may be suggestive but is not diagnostic of appendicitis<sup>5</sup>. Percussion tenderness, guarding and rebound tenderness are most reliable clinical findings indicating a diagnosis of acute appendicitis<sup>5</sup>. The diagnosis is predominantly a clinical one<sup>8</sup>. No specific diagnostic test of appendicitis exists, but the judicious use of simple urine and blood tests, particularly inflammatory response variables, should allow exclusion of other pathologies and provide additional evidence to support a clinical diagnosis of appendicitis<sup>5</sup>. Scoring systems and algorithms have been proposed to aid the diagnosis of acute appendicitis<sup>8</sup>. One meta-analysis and one systematic review on the role of ultrasonography and computed tomography scanning in the diagnosis of acute appendicitis have concluded that these investigations should be done only in

patients in whom a clinical and lab diagnosis of appendicitis cannot be made. As ultrasonography studies are operator dependent and need careful examination, these authors also recommend use of computed tomography in preference to ultrasonography in this group of patients as it has a greater diagnostic accuracy<sup>7,9</sup>.

## Conclusion

The incidence of Acute Appendicitis is more common in males (63.76%) as compared to females (36.23%).

The highest incidence occurs in the age group of 20-30 years (39.13%).

The incidence is highest in the months of October (15.94%) and November (13.04%).

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