

# To Evaluate The Clinical Profile Of Acute Appendicitis

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## Abstract

**Aim:** The purpose of this research was to evaluate the Clinical Profile of Acute Appendicitis.

**Methods:** This study is conducted in the Department of General Surgery as a prospective observational research. This research includes 80 patients of acute appendicitis. Cases were classified based on their age, gender, symptoms, signs, ultrasound results, complications, length of hospital stay, and prognosis. A complete blood count as well as other regular blood tests was performed. The imaging modality employed for diagnosis was ultrasonography.

**Results:** In the current research, there were 63.75 percent male patients and 36.25 percent female patients out of 80 patients. 55 percent of cases were between the ages of 25 and 35. The age group over 55 years old had the fewest instances. The rate was 2.5 percent. All of the patients complained of abdominal discomfort and nausea. Fever was present in 81.25 percent of the patients. The majority of instances exhibited pain over Burney's point. The occurrence rate was one hundred percent. The iliopsoas sign was present in 7.5 percent of the patients. Leukocytosis was found in 93.75 percent of the patients. Appendicular wall thickening was seen in all instances. The incidence was 100%, with the lowest number of patients having peri appendiceal fluid collection at 11.25 percent. Appendicular abscess occurred in 6.25 percent of patients. Mucocele was seen in 3.75 percent of patients. Surgical appendectomy was done in 93.75 percent of patients.

**Conclusion:** The treatment of preference is an emergency appendectomy, however conservative care may also be used. Modern radiographic imaging advances have increased diagnostic accuracy; nonetheless, the diagnosis of acute appendicitis is mostly clinical, with laboratory tests and USG also aiding in decision making.

**Keywords:** Acute appendicitis, ultrasonography, therapy

## Introduction

The most prevalent cause of acute surgical abdomen is acute appendicitis, and appendectomy for acute appendicitis is one of the most common abdominal procedures done by a general surgeon<sup>1</sup>. There have been several investigations on acute appendicitis, yet it remains a clinical issue and the pathogenesis is unknown. The most frequent causes of acute

appendicitis are lumen obstruction caused by fecoliths, lymphoid hyperplasia, or foreign substances. The appendix becomes inflammatory and edematous, with an ischemia and necrotic wall. The gangrenous appendix perforates if it is not diagnosed and treated promptly.<sup>2,3</sup>

The most frequent abdominal emergency is appendicitis. The lifetime chance of having

appendicitis is roughly 7%, and surgical treatment is typically required. The annual incidence of this illness is roughly 11 cases per 10,000 people. Acute appendicitis may occur at any age, however it is more common between 10-20years. White skin patients have a higher incidence between the ages of 15 and 30 years, when the incidence rises to 23 per 10,000 people every year. Following that, the disease's prevalence decreases with age.<sup>4</sup> The appendix is a vestigial organ found near the ileocecal valve at the base of the cecum, where the taenia coli converge on the cecum. Acute appendicitis is the inflammation of the appendix. The total lifetime incidence of acute appendicitis is believed to be 10%, and there is evidence that this is growing.<sup>5</sup> Acute appendicitis is uncommon in babies, but it grows more prevalent in adolescence and early adulthood, peaking in the teens and early twenties.<sup>6</sup> The clinical appearance might range from ambiguous periumbilical discomfort to severe pain in the right iliac fossa, loss of appetite, nausea, vomiting, fever, constipation, and other symptoms. Appendectomy is the preferred therapy for acute appendicitis. Appendectomy has a relatively low mortality rate, which may vary from 0.07 to 0.7 percent in patients without and with perforation, increasing to 0.5 to 2.4 percent in patients with perforation.<sup>7,8</sup> Overall postoperative complication rates for appendectomy varied from 10% to 19% in instances of simple acute appendicitis to 30% in situations of complex acute appendicitis.<sup>9</sup> If neglected, acute appendicitis may result in complications such as an inflammatory mass, appendix abscess, or rupture, as well as systemic peritonitis. Symptoms, indicators, and test data are used to make a diagnosis. The Alvarado score<sup>9</sup>, AIR—Appendicitis Inflammatory Response (Andersson) score<sup>10</sup>,

and the World Society of Emergency Surgery grading system are the most regularly used scoring systems for acute appendicitis (WSES).<sup>11</sup> The current research sought to evaluate the Clinical Profile of Acute Appendicitis.

## Methods and materials

The Department of Surgery conducted this prospective observational research with the consent of the protocol review committee and the institutional ethics committee. Following informed permission, a complete history was obtained from the patient or family members.

## Methodology

This research includes 80 instances of acute appendicitis. Cases were classified based on their age, gender, symptoms, signs, ultrasound results, complications, length of hospital stay, and prognosis. A complete blood count as well as other regular blood tests was performed. The imaging modality employed for diagnosis was ultrasonography. This research comprised individuals over the age of 16 who had proven acute appendicitis on ultrasonography as well as intra-operatively. Patients under the age of 16 having acute abdomen from a cause other than appendicitis were excluded from this research.

## Results

In the current research, there were 63.75 percent male patients and 36.25 percent female patients out of 80 instances. 55 percent of cases were between the ages of 25 and 35. The age group over 55 years old had the fewest instances. The rate was 2.5 percent. (Table 1)

**Table 1: Sex and Age Wise Distribution of patients**

Gender	Number of patients =80	Percentage
Male	51	63.75
Female	29	36.25
Age Group in Years		
Below 25	25	31.25
25-35	44	55

35-45	9	11.25
45-55	3	3.75
Above 55	2	2.5
Total	80	100%

All the cases had pain abdomen and nausea. 81.25% cases had fever. (Table 2)

**Table 2: Symptom Wise Distribution of Cases**

Symptom	Number of Patients	percentage
Pain Abdomen	80	100
Nausea	80	100
Vomiting	74	92.5
Fever	65	81.25

The majority of instances exhibited pain over McBurney's point. The occurrence rate was one hundred percent. The Rebound tenderness was present in 93.5 percent of the patients. (Table 3)

**Table 3: Clinical Signs in Patients with Acute Appendicitis**

	Number of Patients	Percentage
Mc Burney's point tenderness	80	100
Rebound tenderness	75	93.75
Rovsing's sign	17	21.25
Obturator sign	20	25
Iliopsoas sign	6	7.5

93.75% cases had leukocytosis. (Table 4)

**Table 4: Complete Blood Count in Cases of Acute Appendicitis**

	Number of patients	Percentage
Leukocytosis	75	93.75

Appendicular wall thickening was seen in all instances. The incidence was 100%, with the lowest number of patients having periappendiceal fluid collection at 11.25 percent. (Table 5)

**Table 5: Ultrasonography finding in patients of Acute Appendicitis**

	<b>Number of Patients</b>	<b>Percentage</b>
Wall thickening	80	100%
Increased appendiceal diameter	73	91.25
Periappendiceal fluid collection	9	11.25

Appendicular abscess occurred in 6.25 percent of patients, with an incidence of 6.25 percent. Mucocele was seen in three individuals (3.75 percent). (Table 6)

**Table 6: Complications in patients of Acute Appendicitis**

	<b>Number of patients</b>	<b>Percentage</b>
Appendicular mass	5	6.25
Mucocele	3	3.75

Surgical appendectomy was used in 93.75 percent of patients. 6.25 percent of patients had Appendicular mass and were given stronger antibiotics at the time of admission. (Table 7)

**Table 7: Management in Cases of Acute Appendicitis**

	<b>Number of patients</b>	<b>Percentage</b>
<b>Surgical –Appendectomy</b>	75	93.75
<b>Conservative</b>	5	6.25

75 percent of patients remained in the hospital for three days, followed by two days. 15% of patients, and at least 10% of cases, were in the hospital for four days. In our research, there was no death. All 80 patients were entirely recovered. (Table 8)

**Table 8: Outcome in Cases of Acute Appendicitis**

<b>Outcome</b>	<b>Number of Cases</b>	<b>Percentage</b>
Complications	8	10
Mortality	0	0
Recovery	80	100

## **Discussion**

In the current research, the majority of instances (63.75 percent) were male patients, with 36.25 percent being female patients. Our findings are consistent with the findings of Lewis et al. (1975),<sup>12</sup> who discovered that men were the

most prevalent victims of acute appendicitis. 12-55% of the patients were between the ages of 25 and 35. Three individuals between the ages of 45 and 55 were seen. Only 2% of instances were found in those above the age of 55. Our findings are consistent with those of Kazarian et al. (1970), who found that the

greatest number of cases occurred in the second and third decades.<sup>13</sup>

Pain in the abdomen and nausea were reported in all 80 individuals in the current investigation. This was followed by vomiting in 92.5 percent of the instances. In 81.25 percent of patients, fever was present. Earley et al. (2006) conducted a research that found that the most prevalent symptoms were pain, nausea, and vomiting.<sup>14</sup>

In all 80 situations, there was tenderness over Mc Burney's point. The next most prevalent indication was rebound tenderness, which was seen in 93.75 percent of the patients. Obturator sign was positive in 25% of cases, indicating the presence of an inflamed appendix in the pelvis. In 21.25 percent of instances, Rovsing's sign was positive. The iliopsoas sign was positive in 7.5% of the patients, indicating the existence of retrocecal appendicitis (Danny O, 2015).<sup>15</sup>

Except for the leucocyte count, all of the total blood count values were normal in this investigation. In 93.75 percent of the instances, it was elevated. Our findings are consistent with those of Drake et al. (2014), who found that the majority of patients exhibited leukocytosis.<sup>16</sup>

The most prevalent result in our analysis was thickening of the appendix wall, which was detected in all thirty patients. The next most prevalent result was increased appendiceal diameter, which was seen in 91.25 percent of patients. In 11.25 percent of patients, periappendiceal fluid collection was seen. Our findings are consistent with those of Lee and Ho (2003), who discovered thickening of the appendix wall as a frequent ultrasonography result.<sup>17</sup>

In the current research, 8 patients had problems. Appendicular mass was found in 6.25 percent of the patients, while mucocele was found in 3.75 percent. Our findings are consistent with those of Ingraham et al. (2010), who found that appendicular mass development was the most prevalent consequence.<sup>18</sup>

The majority of patients (93.75 percent) were treated with surgical appendectomy. 6.25 percent of patients had appendicular lump and were given stronger antibiotics at the time of admission. Our findings are consistent with the

findings of Yardeni et al. (2004), who treated the majority of patients with surgical appendectomy.<sup>19</sup>

## Conclusion

The results of the present study give a clear view of trend in the diagnosis of acute appendicitis worldwide. Tenderness over Burney's point and rebound tenderness was the commonest sign USG abdomen was used in all of the patients showing thickening of the wall of the appendix. Leukocytosis was commonest finding. Appendicular mass formation was the commonest complication Andersson's, and WSES grading scores was most commonly used scoring. The treatment of preference is an emergency appendectomy, however conservative care may also be use

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