

Incidence of Negative Appendectomy, Our Experience of 100 Patients at Sir Ganga Ram Hospital Lahore

M ASLAM A SHAUKAT F ZAFAR A R BHUTTA A A CHOUDHRI MASIF

Department of Surgery, Fatima Jinnah Medical College/ Sir Ganga Ram Hospital Lahore.

Correspondence to Dr. Muhammad Aslam, Senior Registrar, Email: drmachaudhary@yahoo.com.

Background: Despite recent advances in diagnostic medicine, the diagnosis of Acute Appendicitis is still doubtful in a number of cases. Majority of the Clinicians rely on their clinical examination, strengthened by the laboratory tests. This study was done to see the incidence of negative appendectomy in Patients, who presented in surgical emergency with pain in Rt. Iliac fossa. These patients were assessed and evaluated by clinical examination as well as with the help of Modified Alvarado Scoring system and surgery was decided accordingly. **Aims and Objective:** To see the incidence of Negative appendectomies at Sir Ganga Ram Hospital, Lahore and comparing the rate with the rate of other international Studies. **Study Design:** It was a prospective clinical and Pathological study, consisting of 100 patients, presenting in the Sir Ganga Ram Hospital Lahore, with history of right iliac fossa pain. **Material and Method:** One hundred patients were included in the study, and diagnosis of acute appendicitis was based on Clinical Examination and Modified Alvarado Score. The patients selected for this study were of all age groups and both sexes. Out of hundred, 56 patients were operated after being assessed by clinical Examination and Modified Alvarado Scoring System. **Results:** The incidence of negative appendicitis was about 7% in male, 20% in female and about 10% in children. **Conclusion:** Over all the rate of negative appendectomies was 15%, which is with in lower limit of the other international studies.

Key Words: Incidence, Appendectomy, Modifies Alvarado Score, Right Iliac fossa.

Since Reginald Fitz first described acute appendicitis in 1886, it remains the most common cause of acute surgical abdomen" world wide.¹ Acute appendicitis is still one of the commonest surgical emergencies². The diagnosis is primarily clinical³. A typical patient is one presenting with right lower abdominal pain, nausea and vomiting and has tenderness and guarding, in right iliac fossa on examination. However these sign and symptoms are not very specific for appendicitis and can mimic any other acute abdominal condition⁴. The picture is more confused by the variable position of the appendix⁵. Despite advances in diagnostic modalities the diagnosis is still doubtful in 30-40% of cases⁶. And definite diagnosis of appendicitis still remains a clinical decision, augmented by appropriate tests. A high degree of diagnostic accuracy is required to reduce the incidence of negative Appendectomies, which still remains around 20%⁷. One study has shown an incidence of 50 % in women of reproductive age group⁸. Another study the rate of histologically proven negative appendectomies in the retrospective series was 40 % and in the prospective series 33 %.⁹ Acute appendicitis is a disease of young adults¹⁰. It is rare below 3 years of age but people are vulnerable to it in extremes of their age and complication rate is higher in those groups. It is more common in males as compared to females. It used to be called as the disease of developed countries with an association of high protein intake, but the incidence is also increasing in developing countries. A study reported it to be around 1.9/ 1000 for males and 1.5/1000 for female¹¹

Aims and Objective:

To see the incidence of Negative appendectomies at Sir Ganga Ram Hospital, Lahore and comparing the rate with the rate of other international Studies.

Material and methods:

This study was done on 100 patients, presenting with pain in Rt. Iliac fossa, to see the incidence of negative appendectomy, in those patients who were diagnosed as a cases of acute appendicitis after being evaluated and assessed by Clinical Examination and Modified Alvarado Scoring System. The Patient included in study was hospitalized. Especially designed performa was provided and the findings were recorded. This Performa was filled by the Registrars / House surgeons. There were eight variable in the Performa, which were based on the Modified Alvarado Scoring system. There were 40 male and 60 female patients, presenting in the emergency department with clinical features suggested of acute appendicitis. These patients were evaluated and assessed clinically as well as, with the help of Modified Alvarado Scoring system. After evaluating, those who declared to be operated were prepared for surgery. After having done the appendectomy, the appendix was sent for histological examination. The histopathological results were compared with the clinical diagnosis and the rate of negative appendectomies was assessed.

Results:

Total one hundred patient were included in our study, out of them 56 were operated after assessing them clinically as well as with the help of Modified Alvarado Score. Out of them 15 patients (26.78 %) were male, 30 patients (53.57%) were female and 11 patients (19.64%) were children.

The positive appendectomy rates in males were 93.33%, in female were 80% and in children was 90.90%. The negative appendectomy was 6.66% in males, 20% in female, 9% in children. The overall negative

appendicectomy rate was 15%. In male it was 10% and in female it was almost double than the male. The total number of perforated appendices was 4 and all of them underwent surgery. So the perforation rate was 8.5%. Seven patients (14.9%) had gangrenous appendix. Simple acute appendicitis was present in 36 patients (76.6%).

Table 1: Distribution of patients according to symptoms

Symptom	=n	%age
Pain right iliac fossa	100	100
Pain started epigastrium	86	86.0
Anorexia	50	50.0
Nausea/ Vomiting	58	58.0
Fever	34	34.0
Diarrhoea	13	13.0

Table 2: Distribution of patients according to signs

Signs	=n		%age	
	+ve	-ve	+ve	-ve
Tenderness of right lower quadrant	100	00	100	00
Rebound tenderness	58	42	58	42
Rovsing's sign	48	52	48	52
Rectal tenderness	12	88	12	88
Elevation of temperature	34	66	34	66

Discussion:

Appendicitis is the disease known for centuries¹². It is the commonest surgical problem in every community¹³. The diagnosis and management of appendicitis has remained a dilemma since long. It represents a diagnostic and therapeutic challenge for the surgeons.¹² Despite a great advancement in modern medical technology, there has not been much improvement in diagnosis and management of appendicitis¹⁴. As a result, negative appendicectomy rate is yet high, especially in women of reproductive age.¹⁵ Removal of normal appendix is not free of complications. Due to fear of developing complications of appendicitis, 25 % of negative appendicectomy rate is acceptable.¹⁶ Our study shows the negative appendicectomy rate is 15 %, which is less than the average rate of different international studies. And also there are more female than male patients, which is also contrast to the international studies, We think it is due to the fact that the combination of both, the clinical examination and Modified Alvarado Score has increased the sensitivity and specificity for the diagnosis of acute appendicitis. More over Sir Ganga Ram Hospital is attached with the female teaching college and female patients are visiting more as compare to male patients.

Conclusion:

The incidence of negative appendicitis was about 7% in male, 20% in female and about 10% in children. Over all

rate of Negative appendicectomies were 15%, which is less than the average rate showed by the different international studies. This shows that our approach is slightly more conservative than the average international approach. This may also be due to the fact, that by using both clinical examination and the Modified Alvarado Scoring system, we can improve the existing level of sensitivity and specificity for the diagnosis of acute appendicitis.

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