

Original Article

Role of Investigations and Alvarado Score in acute Appendicitis at Peoples Medical College Hospital Nawabshah

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ABSTRACT

Aim of Study: Role of investigations and Alvarado score in acute appendicitis at Peoples Medical College Hospital Nawabshah.

Study Design: Prospective observational study:

Place and Duration: Two years study from October 2008 to November 2010.

Was conducted in Peoples Medical College Nawabshah.

Patients and methods: The study comprises 50 patients all were admitted from OPD (Out Patients Department) and COD (Casulty Department).

The patients were evaluated fully after history, clinical examination and specific investigation, blood CP, X-Ray abdomen, supin & erect posture, X-Ray KUB, ultra sound of abdomen and general assessment. All Patients of pain in right iliac fossa included all patients were manage on the basis of Alvarado score, Complete Blood Picture and Ultra Sound report.

Result: In this study 50 patients of acute appendicitis in which 25 were female and 25 were male. The maximum of patients were in age group 15 to 40 years. Peak age group 25 years. Out of 50 patients 42 patients were present leucocytosis. On the behalf of Ultra sound report 38 patients were diagnose acute appendicitis. 10 patients were diagnose perforated appendix, 2 patients were diagnose appendicular abscess. 8 patients were present Alvarado score 3 to 4, 30 patients were present Alvarado score 6-7, 12 patients were present Alvarado score 8-9. Patients were operated through procedure of appendectomy then tissue sent for histopathology.

Conclusion: Acute appendicitis is a common cause of acute abdomen. Anorexia, migrating pain, tenderness and rebound tenderness are evidence of acute appendicitis.

Key words: Acute appendicitis, Complete Blood Picture, Ultra sound of abdomen Alvarado score.

INTRODUCTION

Acute appendicitis is the most, common surgical condition of the acute abdomen. It occurs at all age groups but most commonly seen in the second and third decades of life. Pain and vomiting is the most frequent feature of acute abdomen but migrating pain, rebound tenderness is helpful for diagnosis of appendicitis. Anorexia, nausea, rebound tenderness, and migrating pain are features of acute appendicitis. But some clinical tests are helpful for diagnosis of acute appendicitis. Such as psoas tests, obturator tests, rovsing sign, pointing sign. Some factors are responsible for inflammation of appendix such as fecolith, worm infestation and diabetes.

After history, clinical examination and some investigations are necessary for diagnosis of acute appendicitis. Such as Alvarado score, ultra sound of abdomen and Complete Blood Picture. Alvarado score

include anorexia, nausea, vomiting, temperature, migrating pain in right iliac fossa, tenderness, rebound tenderness, leucocytosis and shift to left. If Alvarado score 5 to 6 means possible diagnosis of acute appendicitis. If score 7 to 9 patients need surgical intervention. Ultra sound are helpful for diagnosis of appendicitis. As well as other pathologies like ectopic pregnancy overion cyst, iliocecal tuber culosis, appendicular lump and appendicular abscess. If ultra sound give a picture of appendicular lump so patients need conservative therapy, is called as oshenar shareen regime. If ultra sound give a picture of perforated appendicitis urgently patients need surgical intervention, (standard appendectomy) then tissue sent for histopathology. Complete Blood Picture have a role for management of acute inflammation as well as chronic inflammation.

MATERIALS AND METHODS

It was a prospective study carried out at surgical wards of People's Medical College Hospital, Nawabshah from October 2008 to November 2010.

Detailed history, clinical examination and Investigations were taken and recorded on a preformed designed for the study. Study variable used were age and sex on the basis of blood CP report, ultra sound findings and clinical correlate. 50 Patient were included in the study with pain in right iliac fossa on the behalf of clinical examination. Diagnose pathology of appendicitis included. Were pathology of ilem, cecum, ascending colon were excluded. All the patients were investigated for, Blood sugar, blood Urea, Serum Electrolyte/ creatinine, Blood Complete Picture, X-ray chest, ultra sound of abdomen ,X Ray abdomen supine and erect posture, pregnancy test, urine DR and General assessment. All patients were under went surgery.

Statistical package for social sciences SPSS version 10 was used for statistical analysis of the data.

RESULTS

This was a hospital based series study of 50 patients. Out of which 25 were female, 25 were male. The maximum numbers of patients were in age group of 15 to 40 years. Mean age 25 years. The peak incidence in second and third decades of life.

On the Ultra sound report 38 patients were diagnose acute appendicitis. 10 patients were diagnose perforated appendix, 2 patients were diagnose appendicular abscess. (Table 1)

42 patients were present with leucocytosis 8 patients were present with normal blood count (Table 2)

8 patients were present Alvarado score 3 to 4, 30 patients were present Alvarado score 6-7, 12 patients were present Alvarado score 8-9.(Table 3)

15 Patients were operated through lower midline incision, 30 patients were operated through gird iron incision, 5 patients were operated through lanz incision.(Table 4)

Table 1: Ultra Sound evidence

Ultra Sound	No of Pts	Percentage
Acute appendicitis	38	76%
Perforated Appendix	10	20%
Appendicular abscess	2	4%
Total	50	100%

48 patients were operated by appendectomy procedure, 2 patients were treated by drain. After surgery 46 patients were free from complication, 3 patients were

present post operative fever 1 patients were present with fecal fistula . (Table 5)

Table 2: Blood CP Report

Blood CP Report	No of Patients	Percentage
Leucocytosis	42	84%
Normal WBC	8	16%
Total	50	100%

Table 3: Alvarado Score

Alvarado Score	No of Patients	Percentage
Alvarado Score 3-4	8	16%
Alvarado Score 6-7	30	60%
Alvarado Score 8-9	12	24%
Total	50	100%

Table 4: Abdominal incision

Site of incision	No of Patients	Percentage
Lower midline incision	15	30%
Gird Iron incision	30	60%
Lanz incision	5	10%
Total	50	100%

Table 5: Post operative Complication

Complications	No of Patients	Percentage
Post operative fever	3	6%
Fecal fistula	1	2%
Free from Complication	46	92%
Total	50	100%

DISCUSSION

Appendicitis is regarded as the most common and frequent abnormality of mid gut seen all over the world. The over all incidence was reported to be increasing world wide with changing character stick. Mostly seen second to third decade of life. The diagnosis of acute appendicitis is easily made by Alvarado score, complete blood picture and ultra sound report. Those patients come with pain in abdomen mainly in right iliac fossa, initially pain arises around the umbilicus then pain shift in right iliac fossa with rebound tenderness positive, surgeon suspected pathology related to appendix. Surgeon wants to diagnose and manage the patient with help of Alvarado scoring system, complete blood picture and ultra sonography. Alvarado scoring system are helpful for conservative management as well as surgical intervention. Complete blood picture are helpful for treatment of acute and chronic infection.

Ultrasonography are helpful for diagnose of inflamed appendix, perforated appendix, appendicular lump , appendicular abscess and other pathology.

In this study On the bases of Ultra sound report 38 patients were diagnose acute appendicitis. 10 patients were diagnose perforated appendix, 2 patients were diagnose appendicular abscess.

In this study 42 patients were present with leucocytosis 8 patients were present with normal blood count.

In this study 8 patients were present Alvarado score 3 to 4, 30 patients were present Alvarado score 6-7, 12 patients were present Alvarado score 8-9.

In this study 15 Patients were operated through lower midline incision, 30 patients were operated through gird iron incision, 5 patients were operated through lanz incision.

In this study 48 patients were operated by appendectomy procedure, 2 patients were treated by drain. Post operatively 3 patients developed fever, 1 patients developed fecal fistula.

CONCLUSION

Appendicitis are most common condition of acute abdomen, commonly seen in second to third decade of life. Alvarado scoring system, complete blood picture and ultra sonography are helpful to keep patient either conservative treatment or patients need urgently surgical intervention.

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