

**VALIDATION OF VARIOUS SCORING SYSTEMS
IN DIAGNOSIS OF ACUTE APPENDICITIS**

NEED OF THE STUDY:

Acute appendicitis is a commonly presenting acute condition in emergency department. It needs prompt diagnosis without any delay to avoid complications such as mass, abscess, perforation and peritonitis which may lead to increase in morbidity and mortality. Incorrect diagnosis may miss the underlying other pathology and also cause unnecessary morbidity. There are various scores available to diagnose acute appendicitis such as

- 1) Alvarado score -1986
- 2) Samuel score- 2002 (child 4-15 yrs)
- 3) Tzanaki score (tzanaki et al 2005)
- 4) Appendicitis inflammatory response score(Anderson & Anderson 2008)
- 5) Ohmann score(ohmann et al 1995)
- 6) Lintula score(lintula et al 2005)
- 7) Fenyo lindberg scoring system(fenyo et al 1997)

Many of these scoring systems require radiological and laboratory investigations which are not feasible in all institution, so im chosing modified Alvarado scoring, Ohmann scoring, Eskelinen scoring, which can be done in all institutions with clinical parameters and basic investigations.

PARAMETERS OF MODIFIED ALVARADO SCORING

Signs and symptoms	value
1) Migration of pain to RLQ	1
2) Anorexia	1
3) Nausea and vomiting	1
4) Tenderness in RIF	2
5) Rebound tenderness in RIF	1
6) Elevated temp >37.3	1
7) Leucocytosis >10 ⁵ /l	2

OHMANN SCORE:

Signs and symptoms	value
1) Pain on compression in RIF	4.5
2) Rebound pain	2.5
3) Absence of urinary symptom	2
4) Continuous pain	2
5) White blood cell >10000/ mc l	1.5
6) Age <50	1.5
7) Migration of pain to the RLQ	1
8) Involuntary muscular defence	1

>12 – diagnostic

< 12 – non diagnostic

ESKELINEN SCORE:

Signs and symptoms	points	factor
1) Tenderness	2-RIF 1-Other	11.41
2) Rigidity	2-yes 1- No	6.62
3) Leucocyte count	2- $>10^5/l$ 1- $<10^5/l$	5.88
4) Rebound tenderness	2- yes 1- No	4.25
5) Pain at presentation	2- RIF 1- Other	3.51
6) Duration of pain	2- <48 hr 1- >48 hr	2.13

>55 - diagnostic

<55 - non diagnostic

REVIEW OF LITERATURE

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OBJECTIVES OF THE STUDY:

- 1) To do observational study of the various diagnostic scoring systems in the diagnosis of acute appendicitis
- 2) To compare the sensitivity , specificity of
 - Modified Alvarado scoring
 - Ohmann scoring
 - Eskielinen score
- 3) To analyse the accuracy of this scoring with HPE report or intra-operative findings

MATERIALS AND METHODS:

1) SOURCE OF DATA:

Cases admitted in M.G.M.G.H with suspicion of appendicitis.

Patient was monitored and scored by the various diagnostic scoring systems.

2) STUDY DESIGN AND SAMPLING:

On an average of fifty cases with provisional diagnosis of acute appendicitis between Sep 2012- Oct 2014.

The decision of appendicectomy was taken by the senior surgeon irrespective of the score.

INCLUSION CRITERIA:

- 1) All patients who present at the emergency department with clinical suspicion of acute appendicitis.
- 2) Age group >10 yrs -<70 yrs.
- 3) Both sexes.
- 4) Hemodynamically stable patients without concurrent illness.

EXCLUSION CRITERIA:

- 1) Patients with other known causes of pain.
- 2) Patients undergone previous appendicectomy.
- 3) Age <10 yrs.
- 4) Age >70 yrs.
- 5) Hemodynamically unstable patients.

KEY WORDS:

Acute appendicitis, modified Alvarado score, Ohmann score, Eskelinen score,