

AB189. 161. Evaluation of appendicitis inflammatory response (AIR) score as a safe tool to determine probability of acute appendicitis

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Background: Acute appendicitis is one of the most common surgical conditions but its accurate diagnosis still poses some difficulty in the emergency department particularly in females of reproductive age group. Increasing number of negative appendectomies and inconclusive ultrasound scans make it necessary to develop or adapt an efficient clinical diagnostic tool. Many clinical scoring systems have been developed in the past, most recently AIR score has outperformed the well-known Alvarado score. This study is meant to determine the reliability of this score in a model 3 hospital in Ireland.

Methods: The study included all patients who presented to the emergency department of St. Luke's hospital between July 13th 2018 and November 7th 2018 with pain in right iliac fossa and suspected to have acute appendicitis.

AIR score was calculated for all of them and on the basis of score, patients were classified as; low risk group [0–4], intermediate risk group [5–8] and high risk group [9–12]. Variables were recorded for each group including proportion of inconclusive scans, proportion of case operated and proportion of negative appendectomies.

Results: A total of 81 patients were seen in emergency department with suspicion of acute appendicitis during the given study period. Out of 24 patients in low risk group, 8 (33.3%) had appendectomy and all turned out to be histologically negative. 47 patients were found to have intermediate score and out of whom 23 were operated and 6 (26%) were histologically negative. Ten patients fell in the high-risk category, all were operated and all had histologically confirmed appendicitis. Overall negative appendectomy rate was 34%.

Conclusions: AIR score is a reliable tool to determine the probability of acute appendicitis in patients presenting with right iliac fossa (RIF) pain and has the potential to reduce both admissions and unnecessary surgical interventions.

Keywords: Appendicitis; appendicitis inflammatory response score (AIR score); negative appendectomy rate

doi: 10.21037/map.2019.AB189

Cite this abstract as: Ahmed CA, Hart B. Evaluation of appendicitis inflammatory response (AIR) score as a safe tool to determine probability of acute appendicitis. *Mesentery Peritoneum* 2019;3:AB189.