Indian Journal of Basic and Applied Medical Research; June 2016: Vol.-5, Issue- 3, P. 503-512

**Original article:   
Prospective evaluation of clinical, biochemical and sonographic findings in the diagnosis of acute appendicitis in children**

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**Abstract**

**Background:** The appendix was erroneously viewed as a vestigial organ with no known function, though it is one of the most important surgically. It is now well recognized that the appendix is an immunologic organ that actively participates in the secretion of immunoglobulins, particularly immunoglobulin A (IgA).

**Materials and method:** The study comprised of 100 patients admitted in the emergency department of Surgery, Government Medical College, Srinagar with a provisional diagnosis of acute appendicitis. All patients selected were under 15 years of age and either sex were evaluated on the basis of predetermined proforma, which included, a detailed history from patients or parents, clinical examination, laboratory investigations and high resolution sonography.

**Results:** Majority of the patients in the study cohort fell in the age range of 11-14 years; the youngest being a 2.4 year old kid and the oldest being children of 14 years. In our study there were more males than females (ratio M: F 58:42). 74 patients out of 79 histological positive appendicitis, had clinical assessment suggestive of appendicitis (sensitivity= 93.7%). Out of 79 patients with histologically positive appendices, 64 patients had leucocytosis. Among 21 negative appendectomies only 5 had leucocytosis. 59 patients of 79 histologically positive appendicitis had raised CRP levels and 10 patients out of 21 negative appendectomies had raised CRP levels. 70 patients out of 79 who had histological positive appendicitis had USG suggestive of appendicitis and 1 patient out of 21 negative appendectomies has ultrasound positive for appendicitis. Out of 100 patients 79 patients had positive histopathology and 21 patients had negative histopathology.

**Key words:** Leucocyte count, CRP, Ultrasonography