

## **Positive and Negative Rates in Children with Acute Appendicitis**

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**Background:** Acute appendicitis remains the most misdiagnosed condition worldwide. Children tend to present with a variety of clinical symptoms, may have difficult communication and could be difficult to examine.

**Design:** A Retrospective Study.

**Setting:** King Hamad University Hospital, Bahrain.

**Method:** One hundred thirty-six patients who had appendectomy were reviewed between 1 May 2012 and 31 March 2016. The final diagnosis of acute appendicitis was the histological analysis of the excised specimen.

**Result:** One hundred thirty-six underwent appendectomy and were included in this study between 1 May 2012 and 31 March 2016. One hundred sixteen (85%) patients had uncomplicated appendicitis and 16 (12%) patients had complicated appendicitis. Four patients were histologically negative; Negative Appendectomy Rate (NAR) was 2.9%. Twelve patients had perforation; therefore, the Perforation Rate (PR) was 8.8%. Sixty-six (49%) laparoscopic appendectomies and 70 (51%) open appendectomies were performed. There was no significant difference between hospital stay and surgical technique; the average stay was 4.3 days.

**Conclusion:** Our study has demonstrated NAR of 2.9% for a histologically normal appendix; a perforation rate of 8.8%. This study revealed the need for a prospective study for the pediatric acute abdomen and a dedicated radiological resource focused on pediatric radiology. The diagnosis of appendicitis in children remains largely clinical with appropriate use of US.