

Original Paper

Accuracy of ultrasonography in diagnosis of acute appendicitis

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Abstract

Background and Objective: Acute appendicitis is one of the most common surgical emergencies. Preoperative diagnosis of acute appendicitis remains challenging, despite improvements in history taking and clinical examination. Methods advocated to assist in the diagnosis of appendicitis include laparoscopy, ultrasonography, computed tomography and magnetic resonance imaging. The purpose of this study was to assess the accuracy of ultrasonography in the diagnosis of acute appendicitis.

Materials and Methods: This prospective descriptive study was done to evaluate 265 patients suspected to have acute appendicitis and admitted to the emergency department of 5 Azar hospital of Gorgan from Aug 2005 to Aug 2006. Suspected patients visited by the general surgeon and ultrasonography of the appendix was performed subsequently. The ultrasonography examination was done using high graded-compression ultrasonography with 5 MHz variable focus linear array transducer. The sonographic data were compared with clinical, operative and pathological findings.

Results: The sensitivity and specificity of ultrasonography was 66% and 4%, respectively. Also positive and negative predictive value of ultrasonography was 98% and 40%, respectively.

Conclusion: This study showed that ultrasonography is a useful method in the diagnosis of acute appendicitis. It also increase diagnostic accuracy of acute appendicitis and minimize negative laparotomy and prevent unnecessary appendectomy.

Keywords: Acute appendicitis, Ultrasonography, Sensitivity, Specificity

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