EVALUATION OF SUSPECTED APPENDICITIS IN THE EMERGENCY DEPARTMENT OF A TERTIARY CARE CENTER IN BEIRUT, LEBANON

El Sayed M, Fares S Dakessian A and Bashir R
American University of Beirut Medical Center, Lebanon

Background: Appendicitis, the most common atraumatic surgical abdominal disorder among those 2 years or older, is diagnosed in 1%–8% of children who present to pediatric emergency departments (ED) with acute abdominal pain. Appendicitis diagnosis is done by ultrasonography (US) or computed tomography (CT). CT use and its associated radiation exposure have been increasing. The aim of this study is to examine ED evaluation of suspected appendicitis with focus on imaging modalities and outcomes.

Methods: Retrospective chart review of children (<18 years) with suspected appendicitis evaluated at the Emergency Department (ED) of the American University of Beirut Medical Center from July 2009 to March 2011. ICD-10 codes for abdominal pain, appendicitis, and acute appendicitis were filtered for suspected appendicitis per the attending/resident note and included.

Results: A total of 324 children with suspected appendicitis were included. Over half (N=181, 55.9%) were between the ages of 12 – 18 years. More patients were females (N= 178, 54.9%). CT was the most common imaging modality (62%). Only 2% underwent an US and 36% had no imaging at all. Appendicitis diagnosis was confirmed in 74 patients (22.8%) by CT scan only. No cases were diagnosed by ultrasound. Most patients confirmed with appendicitis had an Alvarado score between 7-9 (60.8%) and PAS score between 4-6 (60.8%). Symptoms of migration of pain, anorexia, nausea/vomiting and signs of RLQ tenderness, rebound pain, coughing/hopping/percussion pain were all significantly different between those with confirmed appendicitis and those with other diagnoses.

Conclusion: The prevalence of confirmed appendicitis among ED patients who were evaluated for suspected appendicitis was low. Ultrasound was underutilized. Better clinical prediction rules and increased incorporation of ultrasound are needed in the evaluation of suspected appendicitis in pediatric patients in our setting.

em911@aub.edu.lb