
Paediatric Appendicitis: Algorithm Reduces CT Scan Use



A study recently published in the journal *Surgery* and conducted by researchers of the Mayo Clinic Children's Center, highlights that an algorithm designed to aid the diagnosis of appendicitis in paediatric patients lowers the use of computed tomography (CT) scans.

The most frequent reason for acute abdominal pain in children, acute appendicitis is a consequence of an inflamed appendix that has accumulated pus.

Due to their high degree of accuracy, availability and capability of providing physicians with advanced information, CT scans are commonly conducted in order to diagnose this condition and avoid complications. This imaging means is, however, expensive and exposes patients to ionizing radiation. This could be avoided if there were an alternative.

Michael B. Ishitani, MD, lead author of the study, explained that a multidisciplinary group consisting of pediatric surgeons, pediatric emergency room physicians and radiologists devised the innovative algorithm with the target of eliminating unnecessary exposure to radiation.

Comparing paediatric patients aged less than 18 years who had undergone an appendectomy for acute appendicitis pre-algorithm implementation with those post-implementation, researchers evaluated 331 cases over the course of five years. Results showed a decrease of CT use from 39 to 18 percent following the algorithm's implementation.

Findings also included a 50 percent drop in CT scan use once the algorithm had been implemented. This did not affect the accuracy of diagnosis, offering proof that the reduction of CT use in patient evaluation for appendicitis is indeed a safe and cost-effective step.

Dr. Ishatani concluded that to ensure the reduced rate of CT scans was sustained over time, the implementation of this algorithm across multiple centres would be ideal.

[Source: MedicalNews Today](#)

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