CORRESPONDENCE



Does FAST Score Reduce the Need for CT Scan in Pediatric Blunt Abdominal Trauma?

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To the Editor: Evaluation of injured children for intraabdominal injuries (IAI) may be difficult because of their inability to communicate [1]. Although computed tomography (CT) of the abdomen is a diagnostic test of choice to detect intra-abdominal injury in blunt abdominal trauma (BAT), it has its own disadvantages. It may require pharmacologic sedation, administration of intravenous contrast, substantial radiation exposure, and transportation out of the controlled environment of emergency department (ED) [2]. The use of focused assessment with sonography for trauma (FAST) in pediatric BAT has not been well accepted because of its poor sensitivity [3].

A few algorithms have been developed to increase the diagnostic accuracy of FAST in pediatric BAT like the integration of liver enzymes and physical examination with FAST findings. Liver enzymes like aspartate transaminase (AST) are elevated in pediatric BAT patients with intraabdominal injury, even in the absence of hepatic injury, and have been shown to be an important predictor of IAI in pediatric BAT [4].

A preliminary study conducted by the authors in their institute showed that the combination of AST with FAST improved the sensitivity for detection of intra-abdominal injury to more than 90%. Around 98% of the patients with AST level < 90 U/L with a negative FAST scan had no intra-abdominal injury. The combination of AST levels with FAST scan may be a valuable prediction tool for ruling out

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an intra-abdominal injury and will help in reducing the need for CT scans in children with BAT.

Declarations

Conflict of Interest None.

References

- Holmes JF, Sokolove PE, Brant WE, et al. Identification of children with intra-abdominal injuries after blunt trauma. Ann Emerg Med. 2002;39:500–9.
- Wegner S, Colletti JE, Van Wie D. Pediatric blunt abdominal trauma. Pediatr Clin. 2006;53:243–56.
- Liang T, Roseman E, Gao M, Sinert R. The Utility of the Focused Assessment With Sonography in Trauma Examination in Pediatric Blunt Abdominal Trauma: A Systematic Review and Meta-Analysis. Pediatr Emerg Care. 2019:1. https://doi.org/10.1097/ PEC.000000000001755.
- Ford EG, Karamanoukian HL, McGrath N, Mahour GH. Emergency center laboratory evaluation of pediatric trauma victims. Am Surg. 1990;56:752–7.

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