

Focused Abdominal Sonography for Trauma (FAST)

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Abstract

This study aims to examine the feasibility of applying the focused ultrasound examination (FAST) in the initial assessment of the trauma patient. Its advantage over diagnostic peritoneal lavage lies in the speed in which it can be performed, its non-invasiveness and repeatability.

Over the period January 1997 to July 1998, the FAST examination (Acuson 128XP/10, 3.5 MHz probe) was used to assess the presence of haemopericardium or haemoperitoneum in 38 multi-trauma patients admitted to the Singapore General Hospital. The sample comprises mainly males (82%) with a mean age of 34 years (range 17 to 77 years). The mechanism of injury was predominantly blunt (95%). Mean Injury Severity Score (ISS) was 22. Eleven patients presented in shock and 16 patients had abdominal tenderness on examination. A single surgeon did the examination, which was performed during the secondary survey phase of resuscitation. Time taken for the FAST examination averaged 2.3 ± 1.3 minutes. The results of the examination were compared to diagnostic peritoneal lavage, CT scan, operative findings, serial examination and/or post-mortem findings. Overall sensitivity was 67% and specificity 97%. Although the FAST examination missed the small amount of free fluid seen in the CT scan of 2 patients, these patients did not have to undergo laparotomy as their abdominal examination was normal. We conclude that the FAST examination is feasible and should be part of a general surgeon's armamentarium in the initial assessment of trauma.

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