Outcome of Blunt Abdominal Traumas with Stable Hemodynamic and Positive FAST Findings

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Abstract

**Introduction:** Focused assessment with sonography for trauma (FAST) is a highly effective first screening tool for initial classification of abdominal trauma patients. The present study was designed to evaluate the outcome of patients with blunt abdominal trauma and positive FAST findings.

**Methods:** The present prospective cross-sectional study was done on patients over 7 years old with normal abdominal examination, positive FAST findings, and available abdominopelvic computed tomography (CT) scan findings. The frequency of need for laparotomy as well as its probable risk factors was calculated.

**Results:** 180 patients were enrolled (mean age: 28.0 ± 11.5 years; 76.7% male). FAST findings were confirmed by abdominopelvic CT scan in only 124 (68.9%) cases. Finally, 12 (6.6%) patients needed laparotomy. Mean age of those in need of laparotomy was significantly higher than others (36.75 ± 11.37 versus 27.34 ± 11.37, p = 0.006). Higher grading of spleen (p = 0.001) and hepatic (p = 0.038) ruptures increased the probability of need for laparotomy.

**Conclusion:** 68.9% of the positive FAST findings in patients with blunt abdominal trauma and stable hemodynamics were confirmed by abdominopelvic CT scan and only 6.6% needed laparotomy. Simultaneous presence of free fluid and air in the abdominal area, old age, and higher grading of solid organ injuries were factors that had a significant correlation with need for laparotomy.

**Keywords:** Abdominal injuries; wounds, nonpenetrating; patient outcome assessment; ultrasonography; tomography, X-ray computed