

Perisplenic extravasation of contrast medium on enhanced helical computed tomography: a reliable indicator for early surgical management in blunt splenic injuries

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摘要

Abstract

BACKGROUND: The purpose of this study was to determine the predictive value of perisplenic contrast material extravasation (CME) on contrast-enhanced helical computed tomography (CT) for early surgical management in blunt splenic injuries. **METHODS:** During a 12-month period, 80 patients who underwent computed tomography (CT) examinations and were discharged with the diagnosis of blunt splenic injury were included in this retrospective study. All CT scans were reviewed for perisplenic CME and the grades of splenic injuries. Their medical charts were independently reviewed for the choice of treatment and the time interval between CT and spleen-related laparotomy. **RESULTS:** Of the 80 CT scans, six (7.5%) were positive and 74 (92.5%) were negative for perisplenic CME. Forty scans were of low-grade injuries, 40 were of high-grade injuries. All six (100%) patients with perisplenic CME underwent spleen-related surgery, whereas 29 (39.2%) patients without CME required surgery ($p=0.005$). The time interval between CT and laparotomy was 1.6 ± 1.0 hours for patients with CME, and 7.6 ± 12.9 hours for patients without CME ($p=0.028$). Similar comparisons of the laparotomy frequency and time intervals between CT and laparotomy in the low-grade and high-grade injury groups did not show any significant differences. **CONCLUSION:** Perisplenic CME detected on contrast-enhanced helical CT was a more reliable predictive criterion than the grading scheme based on the depth of lacerations for early surgical management in blunt splenic injuries