Gastrointestinal Series: Imaging of the Pancreas
Validation of the EPIC SCORE in Patients with Severe Acute Pancreatitis

DATE: Monday, December 01 2008
START TIME: 10:05 AM
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LOCATION:E450B

DISCLOSURES
L.D. - Nothing to disclose.
J.D. - Nothing to disclose.
S.V. - Nothing to disclose.
E.D. - Nothing to disclose.
N.S. - Nothing to disclose.
J.T. - Nothing to disclose.

PURPOSE
Evaluation of the EPIC SCORE to predict outcome in patients with severe acute pancreatitis.

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METHOD AND MATERIALS
We conducted a retrospective cohort study of 85 baseline abdominal CT scans from patients with predicted severe acute pancreatitis included in an international multicenter study on the use of antibiotic prophylaxis in severe acute pancreatitis. All CT scans were reviewed and the following SCOREs calculated: Balthazar SCORE, CT severity index and the newly developed EPIC SCORE. The EPIC SCORE is based on the presence of a. pleural effusion; b. peri-splenic, peri-hepatic, interloop and/or pelvic ascites; c. retroperitoneal inflammation and d. mesenteric inflammation, on a scale from 0 to 7. The performance of the radiological SCOREs to predict outcome (defined as mortality, need for surgery and the development of organ dysfunction (MODS) of 3 or higher at any moment during the course of disease) was evaluated by constructing ROC curves and calculating the area under the curve (AUROC) for the outcome parameters. Data are reported as mean (standard deviation), a p-value of 0.05 or less was considered statistically significant.
RESULTS
Mean age of the patients was 53 years (17.8), 58 of them (69%) were male. APACHE II SCORE, Ranson SCORE and modified Glasgow SCORE was 11.4 (6.87), 4.1 (2.04) and 3.8 (1.95) respectively.
Pancreatic necrosis was documented in 74 patients (10 patients did not receive IV contrast CT scan), and was estimated <30% in 27, 30-50% in 34 and >50% in 13.
Ten patients (12%) needed surgery for complications of severe acute pancreatitis, and 10 patients eventually died because of progression of pancreatitis or (peri-)pancreatic infection.
The AUROC curve for predicting mortality was 0.61 for the EPIC SCORE, 0.63 for the CT severity index, and 0.55 for the Balthazar SCORE. The AUROC curve for predicting the need for surgery was 0.73 for the EPIC SCORE, 0.68 for the CT severity index, and 0.55 for the Balthazar SCORE. The AUROC curve for predicting the development of organ dysfunction was 0.65 for the EPIC SCORE, 0.54 for the CT severity index, and 0.51 for the Balthazar SCORE.

CONCLUSION
The EPIC SCORE performed at least comparable to the established CT Severity Index in a cohort of patients with severe acute pancreatitis; the Balthazar performed only poor in this analysis.

CLINICAL RELEVANCE/APPLICATION
Uncomplicated CT scoring system for predicting the outcome of acute pancreatitis

QUESTIONS ABOUT THIS EVENT EMAIL:
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