Scientific Papers

#### PARTICIPANTS

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# CODE: VG21-07 SESSION:

# Gastrointestinal Series: Imaging of the Pancreas Validation of the <u>EPIC SCORE</u> in Patients with Severe Acute Pancreatitis

DATE: Monday, December 01 2008 START 10:05 AM TIME: END TIME: 10:15 AM LOCATION:<u>E450B</u>

#### 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.

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#### PURPOSE

Evaluation of the <u>EPIC SCORE</u> 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 <u>SCORE</u>s calculated: Balthazar <u>SCORE</u>, CT severity index and the newly developed <u>EPIC SCORE</u>. The <u>EPIC SCORE</u> 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 <u>SCORE</u>s to predict outcome (defined as mortality, need for surgery and the development of organ dysfunction (MODS<u>SCORE</u> 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 <u>SCORE</u>, Ranson <u>SCORE</u> and modified Glasgow <u>SCORE</u> 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 <u>SCORE</u>, 0.63 for the CT severity index, and 0.55 for the Balthazar <u>SCORE</u>. The AUROC curve for predicting the need for surgery was 0.73 for the EPIC <u>SCORE</u>, 0.68 for the CT severity index, and 0.55 for the Balthazar <u>SCORE</u>. The AUROC curve for predicting the development of organ dysfunction was 0.65 for the <u>EPIC SCORE</u>, 0.54 for the CT severity index, and 0.51 for the Balthazar <u>SCORE</u>.

# CONCLUSION

The <u>EPIC</u> <u>SCORE</u> 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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