n=20; no SIRS, 21.6 (18.6–43.1) nmol/l, n=13, p<0.0001), and in PODs who died/required emergency liver transplantation (OLT 72.9 (68.1–119.2) nmol/l, n=14; survived 30.5 (20.7–59.1) nmol/l, n=29, p=0.006; AUROC 78.6% (95% CI 62.2% to 94.9%). An admission neopterin level of 50 nmol/l predicted death/OLT with a sensitivity of 100.0% (95% CI 76.8% to 100.0) and specificity of 63.2% (95% CI 58.4 to 83.7). Admission neopterin levels in PODs correlated with: serum creatinine (Spearman’s r=0.847, p<0.0001); prothrombin time (r=0.459, p=0.011); platelet count (r=–0.463, p=0.007); IL-6 (r=0.650, p=0.0001); IL-10 (r=0.529, p=0.004); serum ferritin (r=0.467, p=0.006); and with organ failure scores (SOFA, r=0.725, p<0.0001; APACHE II, r=0.659, p<0.0001).

Conclusion Serum neopterin levels are significantly elevated following POD and are correlated with adverse outcomes. Serum neopterin may have value as an early marker of prognosis in ALF and should be assessed further with larger prospective cohorts of ALF patients. The correlation of serum neopterin with adverse outcomes provides further support for the importance of macrophage activation in the pathogenesis of multiorgan failure in ALF.

Competing interests None declared.

PTU-006

THE SEQUENTIAL ORGAN FAILURE ASSESSMENT (SOFA) SCORE IS AN EFFECTIVE TRIAGE MARKER FOLLOWING STAGGERED PARACETAMOL (ACETAMINOPHEN) OVERDOSE

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Introduction The Organ Failure Assessment (SOFA) score in a cohort of severe acute liver injury patients following staggered paracetamol overdose. The aims of this study were to evaluate the prognostic accuracy of the SOFA score in a cohort of severe acute liver injury patients following staggered paracetamol overdose.

Methods Time-course analysis of 50 staggered paracetamol overdoses admitted to a tertiary liver centre. Individual laboratory samples were correlated with the corresponding clinical parameters in relation to time from admission, and the daily SOFA score calculated.

Results A total of 39/50 (78%) patients developed hepatic encephalopathy, and therefore acute liver failure. The area under the SOFA receiver operator characteristic for death/liver transplantation was 0.87 (95% CI 75.2 to 95.7), 94.3 (95% CI 82.5 to 99.1), and 98.4 (95% CI 84.3 to 100) at 0, 24, and 48 h respectively post-admission. A SOFA score of <6 at triage care admission predicted survival with a sensitivity of 100.0% (95% CI 76.8% to 100.0%) and specificity of 58.3% (95% CI 40.8% to 74.5%), compared with 85.7% (95% CI 60.6% to 97.4%) and 75.0% (95% CI 65.2% to 79.5%) respectively for the modified King’s College criteria. Only 2/21 patients with an admission SOFA score <6 required renal replacement therapy or intracerebral pressure monitoring. SOFA significantly outperformed the Model for End-stage Liver Disease at 0 (p=0.0013), 24 (p=0.0001) and 48 h (p=0.0195) following admission.

Conclusion A SOFA score <6 at triage care admission following a staggered paracetamol overdose carries a high negative predictive value. The SOFA score could improve triage of high risk staggered paracetamol overdose patients.

Competing interests None declared.

REFERENCE