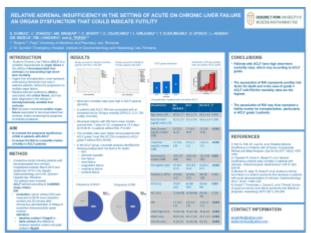


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RELATIVE ADRENAL INSUFFICIENCY IN THE SETTING OF ACUTE ON CHRONIC LIVER FAILURE - AN ORGAN DYSFUNCTION THAT COULD INDICATE FUTILITY



Liver Diseases and Transplantation

AO1 Acute Liver Failure and Artificial Liver Support Presented on Saturday, June 2, 2018 12:00 PM

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Background: Acute-on Chronic Liver Failure (ACLF) is a condition characterized by organ failure in the setting of decompensated liver cirrhosis and associating high short-term mortality. Urgent liver transplantation could represent a life-saving intervention but only in selected patients, before the progression to multiple organ failure. Relative adrenal insufficiency (RAI) is frequently diagnosed in hemodynamically unstable cirrhotic patients with and without sepsis. Moreover, RAI has been considered another organ failure in the setting of decompensated cirrhosis, further worsening the prognosis of critically-ill patients. We aimed to evaluate the prognosis significance of RAI in patients with ACLF and to assess the association of RAI as a possible marker of futility in ACLF patients. Methods: We conducted a prospective study of patients with decompensated liver cirrhosis who were hospitalized between March 2015 and September 2016 in the Hepato-Gastroenterology unit of the Clinical Emergency Hospital "St. Spiridon" lasi, Romania. 153 patients were included. ACLF was defined according to the CANONIC study criteria. The concentration of serum cortisol (SC) was measured at 08:00 hours (baseline cortisol) and 30 minutes after intravenous administration of 250 µg of synacthen (tetracosactide) (peak cortisol). RAI was defined as a baseline cortisol value < 15 µg/dL or as a delta cortisol value (the difference between baseline cortisol and peak cortisol) < 9 µg / dL.

Results: RAI was diagnosed in 72 patients (47%). 113 patients (74.3%) were diagnosed with ACLF, out of which 62 (55%) had RAI. 30 patients had ACLF grade 1, 32 ACLF grade 2, and 51 ACLF grade 3. Short-term mortality rates were high in ACLF patients (58.44%) and varied progressively according to ACLF grade (7.6% grade 1, 22.7% grade 2, and 69.7% grade 3). The mortality rates were higher among patients with ACLF grade 3 and RAI (39 patients, 81.2%) compared to 7 patients (38.9%) in ACLF grade 3 without RAI. In patients with ACLF, RAI was associated with an increased risk for 28-days mortality [OR=2.6, CI (1.705-4.059), P<0.001]. Deceased patients with RAI had a lower median survival time 7 days (5-12), compared to patients without RAI, of 19.5 days (9.75-65.5), P=0.001. In the ACLF group, univariate analysis identified RAI, alcoholic hepatitis, liver failure, renal failure, coagulation failure, respiratory failure, and cerebral failure as independent risk factors for death.

Conclusion: Patients with ACLF have high short-term mortality rates, which vary according to ACLF grade. The association of RAI represents another risk factor for death and in the case of grade 3 ACLF with RAI the mortality rates are the highest. The association of RAI may thus represent a futility marker for transplantation, particularly in ACLF grade 3 patients

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