EP-15 - (17) - LACTATE HAS USEFUL PROGNOSTIC VALUE FOR EARLY-MORTALITY IN PATIENTS WITH ACUTE-ON-CHRONIC LIVER FAILURE IN THE INTENSIVE CARE UNIT

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Objectives Acute-on-chronic liver failure (ACLF) portends high early-mortality. The ACLF grading system and the CLIF-C ACLF score have been proposed to discriminate disease severity and for prognosis but with limitations. Thus, we aimed to study the prognostic value of lactate for early-mortality in ACLF. Materials & Methods Retrospective cohort study including 50 consecutive patients admitted to a specialized intensive care unit (ICU) April 2013 to March 2016. Associations with 28-day post ICU admission mortality were studied with logistic regression. Results Forty (80%) patients were male and median (IQR) age was 59 (50-63) years. The precipitant event of ACLF was infection in 32 (64%) patients. Median (IQR) MELD score at ICU admission was 29 (22-32). ACLF grade 3 (\geq 3 organ failures) was present in 23 (46%) patients at day 3 post ICU admission, with a median (IQR) CLIF-C ACLF score of 55 (48-68). Median (IQR) lactate at day 3 post ICU admission was 29.1 (1.4-4.0). All-cause 28-day and 90-day mortality occurred in 29 (58%) and 32 (64%) patients, respectively. Liver transplant was performed in 13 patients. ACLF grade 3 (66% vs. 19%), CLIF-C ACLF score (62 vs. 46), and lactate (2.9 vs. 2.3) at day 3 post ICU admission were better associated with 28-day mortality (P<0.02 for all). Lactate prognosticated 28-day mortality with an area-under the curve (AUC) of 0.82 (95% CI, 0.70-0.95), greater than ACLF grade 3 (0.73 [95% CI, 0.59-088]) or CLIF-C ACLF score (0.79 [95% CI, 0.66-0.92]). Lactate cutoff \geq 3mmol/L yielded a specificity of 94% and a positive predictive value of 93%. Conclusions Lactate at day 3 post ICU admission may be worthwhile to consider when evaluating ACLF course and discussing further organ support and possible futility of care.