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Prognostic Factors in Acute-on-Chronic Pancreatitis: Insights from a Romanian Tertiary Center Cohort

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Abstract
Background/Aims: This study aimed to assess and compare the severity of acute pancreatitis (AP) in patients with and without underlying chronic pancreatitis (CP).
Methods: We included patients diagnosed with AP and categorized them into those with CP and those without CP. Disease severity was defined by the presence of organ failure, intensive care unit (ICU) admission, or mortality.
Results: ACP accounted for 25.85% of all AP cases in the study. Patients with ACP were more commonly male smokers with low BMI, lower albumin levels, and higher Balthazar scores. In contrast, patients with AP (without CP) had significantly higher heart rates (HR), Balthazar, and CTSI scores. Length of hospitalization and mortality rate were higher in those patients with AP, who were associated with a high rate of organ dysfunction. Prognostic factors influencing survival at 72 hours were respiratory failure, creatinine/albumin ratio, BISAP, albumin levels, and AKI. Meanwhile, survival at 30 days was influenced by respiratory failure, the creatinine/albumin ratio, and blood urea nitrogen.
Conclusions: Compared to AP without CP, ACP is associated with a less severe disease course, lower mortality, reduced organ failure, and shorter ICU stays. However, ACP is more frequently observed in male smokers with lower BMI and albumin and higher CTSI and Balthazar scores.
Keywords: acute pancreatitis, acute on chronic pancreatitis, severity, mortality