

Effect of Renal Damage on Prognosis in Patient With Acute Pancreatitis



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Introduction

Acute pancreatitis (AP) is an inflammatory process associated with a high complication rate and increased risk of death. The worldwide incidence of acute pancreatitis is 100,000/34 and this rate is increasing. Acute pancreatitis is one of the most common gastrointestinal disorders leading to hospitalization in the US, costing the healthcare system \$9.3 billion annually. In this study, we aim to compare the relationship between the severity of the disease and kidney damage to predict the prognosis in patients with AP.

Method

Patients over 18 who applied to the emergency department between 01.01.2019 - 31.12.2019 and were diagnosed with AP were included in the study. In our retrospective study, patients with chronic renal failure, pregnant women, those missing data, and cancer patients were excluded. The diagnosis of AP severity was classified according to BISAP score. Acute kidney injury (AKI) was defined according to the AKIN criteria. The relationship between AP and kidney failure was investigated by comparing the BISAP and AKIN scores with the data we obtained.

BISAP score

BUN	• BUN >25 mg/dL (8.9 mmol/L) (1 point)
Impaired mental status	• Abnormal mental status with a Glasgow coma score <15 (1 point)
SIRS	• Evidence of SIRS (systemic inflammatory response syndrome) (1 point)
Age	• age >60 years old (1 point)
Pleural effusion	• Imaging study reveals pleural effusion (1 point)

0-2 Points: Lower mortality (<2 percent)

3-5 Points: Higher mortality (>15 percent)

Conclusion

AKI is a frequent complication of severe acute pancreatitis and develops late in the course of the disease, usually after the failure of other organs. AKI was present in 15.2% of the patients with high-risk BISAP scores. The development of AKI should not be ignored in patients with severe acute pancreatitis.

References

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Results

In our study, 127 patients were included, and the mean age was 51.28±14.84 years. 45.7% of the patients were male and 54.3% were female. Even though there was no statistical difference when the AKIN score was compared with the hospitalization status in the Intensive Care Unit (ICU), compared with the BISAP scoring was meaningful between two groups. (p=0.138, p<0.001) AKI was present in 15.2% of the patients with high-risk BISAP scores. BISAP was found to be high risk in 19.2% of patients with AKI (p=0.379).

Table 1: Those who developed AKI out of the total number of patients.

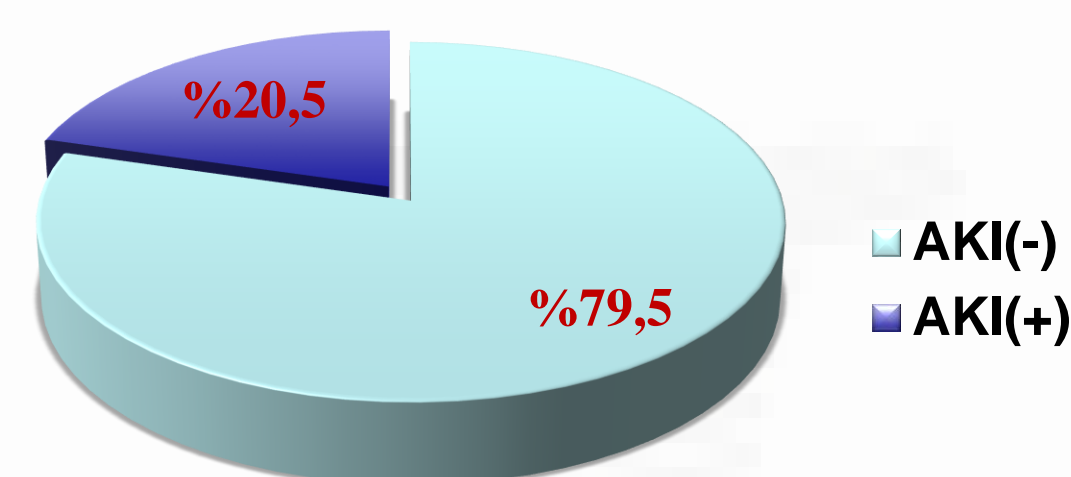
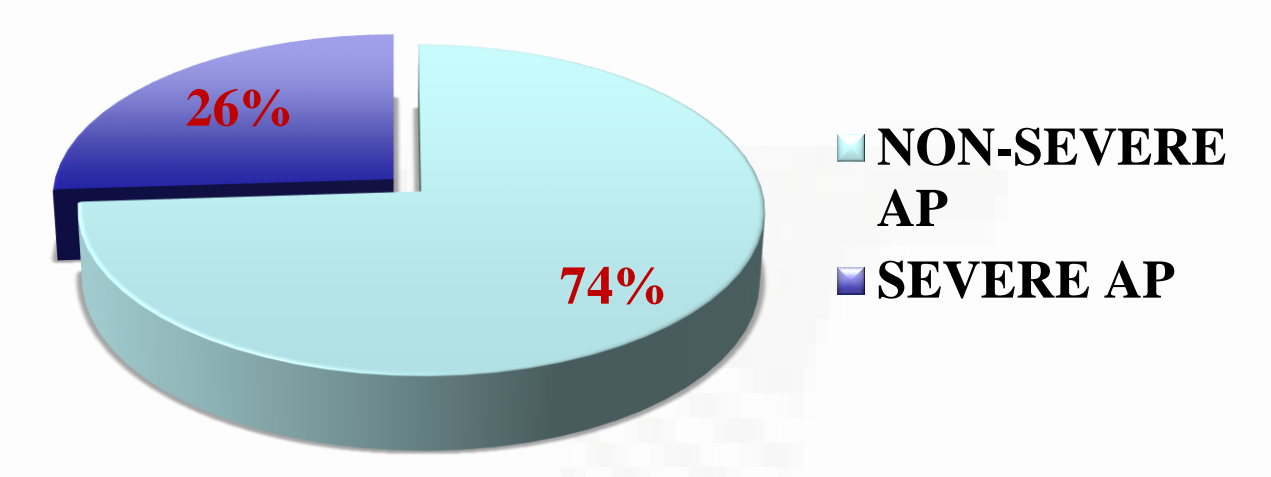


Table 2: Those with severe AP out of the total number of patients



Acute Kidney Injury rate

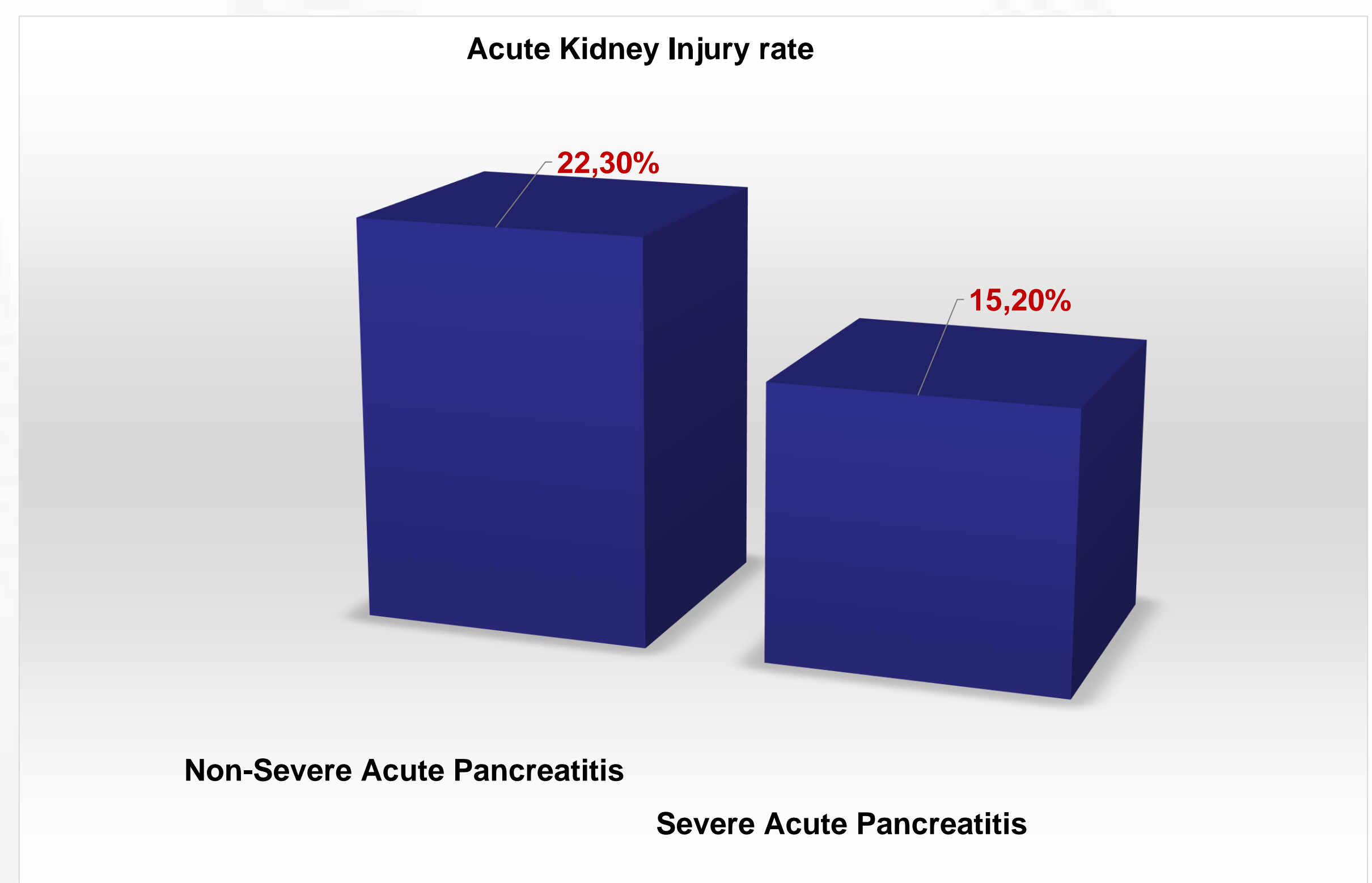


Table 3: AKI development rate according to AP severity