

1272 Renal and Electrolyte Abnormalities in Burned Patients

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Introduction. Annually, more than 300000 burned patients suffer and die from the burned injury caused morbidities, 95% of which, are from developing low income countries. According to the released data of legal medicine agency, burn injuries, follow car accidents and poisonings to be the third cause of death in traumatic patients. Therefore, we decided to conduct this study to accurately identify the risk factors, predicting factors, and lab tests associated with death, and the factors affecting the in-hospital mortality of burned patients in north-west of Iran.

Methods. In this study, we have indicated the essential death predicting and affecting factors among burned patients in 2019 in Sina hospital, to provide the clinicians with a better and more in-depth insight into burned cases and reported the most important parameters based on data gathered from 1167 patients admitted to a referral center of Burning and Plastic Surgery in north-west of Iran.

Results. Electrolyte disturbance was observed in 18.5% of admitted patients, and 83.3% of expired patients. Calcium level disturbance at the point of admission and during hospital stay was associated with higher rates of mortality and the mean calcium levels was higher among those who lived. ARF (Acute Renal Failure) has occurred in 2.7% of all patients and 33.3% of expired patients. The OR of the acute renal failure for mortality was calculated to be 77.714 ($P < 0.001$).

Conclusion. This study indicating the significant role of renal failure in death prediction among burned patients. Regarding the fact that electrolyte disturbance occurs in burned patients mostly due to the loss of the defensive skin barrier and the significant role of the kidney to tune the level of each electrolyte and work against the injury, renal failure could have increased the mortality risk through affecting the defensive mechanism of the kidney.