

Category : **Infections + antimicrobials**

**A238 - Retrospective evaluation of the relationship between infections and mortality during the icu hospitalisation of polytrauma patients**

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**Introduction:**

Polytrauma accounts for 9% of the causes of death worldwide [1]. Understanding the causes of mortality in trauma patients guides patient management [2]. The aim of this study is to determine the relationship of infections and mortality among for polytrauma patients that had been treated in intensive care unit(ICU).

**Methods:**

The study was conducted by examining the records of 78 polytrauma patients between the ages of 18 and 85 who had been treated in ICU at a 3rd level university hospital between June 2020 and June 2023 retrospectively. Demographical parameters,mortality, mechanical ventilation, GKS, SOFA, APACHE-II, CRP and procalcitonin levels were analyzed using Mann Whitney U-Test was used for comparisons between groups, and Chi-Square test was used for comparisons of categorical variables.Spearman's Correlation Analysis was used to examine the relationship between continuous variables.

**Results:**

Mortality ratio among polytrauma patients was 17.8% (n:14). There was statistically significant difference in terms of GCS, SOFA , APACHE-II and the level of procalcitonin at 6.th day between survivors and non-survivors. The first 7-day levels of CRP were similar between survivors and nonsurvivors.Respiratory tract culture and blood culture positivity had a corelation with mortality. The SOFA scores of the nonsurvivors recorded at the day of the diagnosis of the infection were significantly higher.

**Conclusion:**

As a result of this study, it was concluded while CRP levels are high due to trauma and do not predict mortality, procalcitonin levels can be used to predict the presence of infections and relationship between infections and mortality. In order to develop appropriate prescriptions regarding empirical antibiotic selections, the study result that blood culture and respiratory tract culture positivity is associated with mortality should be taken into consideration.

**References:**

- 1) Van Breugel JM et al. World Journal of Emergency Surgery, 15,1-13,2020
- 2) Iyengar K.P. et al. Orthopedic research and reviews, 27-38,2023