Service Priorities and Programmes

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Submitting author: Mr MING WAI CHENG
Post title: Registered Nurse, Princess Margaret Hospital, KWC

Does the infected trauma patient under ICU care alter the outcomes? Retrospective observational cohort study.

Cheng MW
Intensive Care Unit, Princess Margaret Hospital

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Introduction

Timely and appropriate pre-hospital and initial management for trauma has been sounded. However, nosocomial infection in trauma patients is a significant source of resource utilization and mortality. There is a need in overview, characteristic and outcome of post-traumatic infection.

Objectives

The aim of this study gave an overview the incidence of infected trauma patients in ICU and investigated difference in the length of stay, mortality between infected and non-infected trauma patients. The study also identified the independent predictors to length of stay and mortality among the infected trauma patients.

Methodology

A retrospective observational cohort study on 147 trauma patients who were age ≥ 18, hospital length of stay (HLOS) ≥ 24 hours and were transferred to ICU, PWH for further care. The incidence of post-traumatic infection, different of ICU and HLOS and mortality between infected and non-infected trauma patients and to estimate the risk factors of infected trauma patients were analyzed with uni- and multivariable logistic regression analysis.

Result

Age, abbreviated injury score (AIS) head or neck and extremities, pneumonia and wound infection were all factors associated significantly with prolonged HLOS (≥ 30days) and number of infected sites, injury severity score (ISS), pneumonia and wound infection were factors significantly associated with mortality. In the multivariant analysis, two independent risk factors of prolonged HLOS (≥ 30days) were pneumonia (adjusted odds ratio = 4.911, 95% CI, 2.043-11.807; $p < 0.001$) and wound infection (adjusted odds ratio= 7.998, 95% CI, 2.62-24.413; $p < 0.001$). And the only independent risk factor of mortality in mulitivariant analysis was ISS (adjusted odd ratio 0.951, 95% CI, 0.922-0.982; $p = 0.002$).