

Hyperbilirubinemia Predisposes to the Incidence of Nosocomial Infection in Egyptian Patients with Cirrhosis: A cohort Study

khadija ahmed¹, Tarek Mostafa², sahar elhaggar¹, and sherief abdelsalam¹

¹Affiliation not available

²Tanta University Faculty of Pharmacy

January 5, 2023

Abstract

Background: nosocomial infection (NIs) is a major challenge in healthcare facilities and has been associated with prolonged hospital stay as well as increased morbidity and mortality. Aims: This research aimed to estimate the impact of acute decompensation (AD) consequences on the successive risk of nosocomial infections (NIs) and the go after outcome. Methods: A total of 250 hospitalized cirrhotic patients with decompensation were included in the study. Different decompensation events and after-effects in patients with or without NIs were compared. The logistic regression and Cox proportional hazards models were designed for NIs development and mortality at 28 days, respectively. Results: During hospitalization, 22.4 % of patients developed NIs. Remarkably, a higher percentage of patients with NIs had jaundice (42.9% vs. 26.8 %; $p=0.06$ at admission compared to patients without NIs, whilst a lower percentage had gastrointestinal hemorrhage (14.3 vs. 33.5%; $p=0.017+$). Multivariate analysis revealed that jaundice was independently linked with the development of NIs (OR, 0.474; 95% CI: 0.24–0.92). The 28-day mortality rates of patients with NIs were significantly higher than those without NIs (21.4 vs. 9%; $p=0.014$). According to the Cox proportional hazards model, jaundice stayed an independent risk factor for 28-day death (HR, 8.38; 95% CI: 3.58–19.62). Conclusion: Different decompensation events have different impact on the incidence of Nosocomial infections. Jaundice is independently associated with occurrence of NIs and increased 28-day mortality. Therefore, prophylaxis measures are recommended to benefit this specific subsection of patients. Keywords Decompensation, nosocomial infections, jaundice, mortality, hospitalization

Hosted file

decompensation and NI (Without title).docx available at <https://authorea.com/users/572846/articles/617512-hyperbilirubinemia-predisposes-to-the-incidence-of-nosocomial-infection-in-egyptian-patients-with-cirrhosis-a-cohort-study>

Hosted file

figure.docx available at <https://authorea.com/users/572846/articles/617512-hyperbilirubinemia-predisposes-to-the-incidence-of-nosocomial-infection-in-egyptian-patients-with-cirrhosis-a-cohort-study>

Hosted file

tables.docx available at <https://authorea.com/users/572846/articles/617512-hyperbilirubinemia-predisposes-to-the-incidence-of-nosocomial-infection-in-egyptian-patients-with-cirrhosis-a-cohort-study>