Abstract

Complications and deaths due to nosocomial infections were important to patients, their families and health care providers. In previous study, it was estimated 22 extra hospitalized days and 281,222 NT dollars extra cost for every patient with nosocomial infection. Patients had nosocomial infection had more complications and higher mortality during hospitalization. To understand the impact of nosocomial infections on morbidities and risk factors associated with mortality of hospitalized patients, a retrospective study at National Taiwan University Hospital between July 2002 and June 2003. Totally 2107 patients (male 1422, female 1212) with 2134 episodes of nosocomial infection were enrolled with a mean 48 hospitalized days. Most patients had underlying systemic medical illnesses, such as malignancies (41.4%), recent operation (41.0%), diabetes (26.9%), steroid use (20.1%), immunocompromised therapy (19.2%), chronic heart diseases (18.9%) and chronic renal diseases (11.9%). The most common infection site was blood, followed by urinary tract, surgical sites and respiratory tract. The most common offending pathogens were Candida species (18.9%), followed by Staphylococcus aureus (11.2%), Escherichia coli (10.4%), Pseudomonas aeruginosa (8.9%) and Klebsiella pneumoniae (7.9%). Totally 920 patients died (43.7%) with half of them (21.8%) directly due to nosocomial infections. Complications of nosocomial infections including acute respiratory failure (20.1%), disseminated intravascular coagulation (DIC, 19.2%), septic shock (12.3%), gastrointestinal bleeding (8.2%) and acute renal failure (6.6%). Thirty-eight patients (1.4%) received operation due to nosocomial infections. In the multivariate analysis: disease severity, underlying diseases (malignancies, chronic heart diseases, leukopenia), hospitalized in cancer ward and intensive care units, hospitalized days prior to nosocomial infections; infection in the blood, respiratory tract, infection of Candida species; patients receiving arterial line insertion, endoscopic examinations, hemodialysis, endotracheal intubation, foley catheterization; complicated with shock and DIC associated with increased risk of deaths during hospitalization.

Nosocomial infections have a significant impact on the morbidities and mortality of patients at medical centers. Effective infection control program of community hospitals and adequate monitoring by government should be emphasized.