Journal of the Medical Association of Thailand, Vol 96, No 2

Candidemia in Siriraj Hospital: Epidemiology and Factors Associated with Mortality

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Abstract

Objective: To study the epidemiology of candidemia and to identify risk factors for mortality among adult patients
Material and Method: Retrospective analysis of patients with candidemia in a 2400-bed tertiary care university hospital in Bangkok, Thailand from June 2006 to May 2009.
Results: During the study period, 147 patients (50% male) with clinically significant candidemia were identified, with a mean age of 61 years. The underlying conditions included renal failure (47%), abdominal surgery within 30 days (31%), diabetes (27%), hematologic malignancies (25%), solid malignancies (25%), neutropenia (23%), and liver disease (11%). Nearly all patients (98%) received antibacterial therapy within 30 days. The four most common Candida species were C. albicans (39%), C. tropicalis (28%), C. glabrata (22%) and C. parapsilosis (6%). Only sixty-nine patients (47%) received appropriate antifungal therapy within 72 hours. The 28-day all-cause mortality was 59%. By multivariate analysis, the independent risk factors associated with mortality were neutropenia from chemotherapy OR = 9.12 (2.94-28.31), septic shock OR = 3.66 (1.54-8.66), ICU admission OR = 3.18 (1.27-7.92), inappropriate antifungal therapy within 72 hours OR = 2.38 (1.07-5.28) and renal failure OR = 2.34 (1.07-5.13).
Conclusion: Adult patients with candidemia had a high mortality rate particularly those receiving an inappropriate antifungal therapy. Empirical antifungal therapy should be considered in selected patients on the basis of underlying conditions, severity of illness and risk factors for mortality.

Keywords: Candidemia, Candida albicans, Non-albicans Candida, Invasive candidiasis, Risk factor, Epidemiology, Inappropriate antifungal therapy

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