

Abstract

Research Title : The isolation of nosocomial pathogens from
cancer patients
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Isolation, characterization and antimicrobial resistance of bacteria and yeasts, were causative agents for hospital acquired infections in cancer patients. This investigation was conducted in specimens from cancer patients, who were admitted in National Cancer Institute, Thailand during 2010. The isolated bacteria were 1,292 isolates contained, gram-negative bacteria (*Enterobacteriaceae*) mainly *Escherichia coli* (18.34%, n = 237) and *Klebsilla pneumoniae* (8.44%, n = 109); non-fermented gram negative bacteria (NFB) mainly *Pseudomonas aeruginosa* (7.28%, n = 94) and *Acinetobactor baumannii* (5.11%, n = 66); gram positive bacteria mainly *Staphylococcus aureus* (16.1%, n = 208) and *Enterococcus* spp. (3.64%, n = 47). Most of 182 isolated yeasts were included *Candida albicans* (43.96%, n =80), *C. tropicalis* (29.12%, n =53), *C. parakrusei* (16.48%, n = 30) and *C. krusei* (4.4%, n = 8), respectively. The main sources of infection was Non-ICU (IPD) (55.23%, n = 95), and respiratory system was the main sites of infection (50.71%, n = 107). Methicillin resistance *S. aureus* (MRSA) was 39.9% (n = 83). *E. coli* was the most extend spectrum beta-lactamase (ESBLs) producing bacteria (69.1%, n = 96). Multi-drug resistance (MDR), were mainly *Acinetobactor baumannii* (48.86%, n = 43). The numbers of drug-resistance bacteria including, MRSA, ESBLs and MDR were increased when comparing previous study. Therefore, rate of drug resistance was decreased (excepted *A. baumannii* and *S. maltophila*). This finding showed the number of hospital acquired infections in cancer patients, which were trend to be higher than previous study with increment of drug resistance bacteria. In contrast, drug resistance rates were lower, because proper antimicrobial usage of medical doctor.

Keyword: Nosocomial infection (NI), Hospital-acquired infection, Cancer patient, Drug Susceptibility, Drug resistance