Pattern of hospital-acquired pneumonia in intensive care unit of Suez Canal University Hospital

Nermine El Maraghy
Suez Canal University, Egypt

Background: Hospital acquired pneumonia occurs more than 48 h after hospital admission and was not present at the time of admission, while ventilator associated pneumonia occurs after 48–72 h of endotracheal intubation or within 48 h of extubation. HAP is the second most common nosocomial infection and accounts for approximately 25% of all infections in the intensive care unit worldwide.

Purposes: To identify the etiology, initial evaluation, prevention and treatment of adult patients with ICU HAP, and VAP (Ventilator-Associated Pneumonia) in Suez Canal University Hospital and their management strategies.

Methods: This study was conducted in the Department of ICU, Suez Canal University Hospital, Ismailia, Egypt in the period from May to August 2013. All the patients were subjected to clinical and radiological assessment, endotracheal aspirate samples for culture, and sensitivity to determine the causative organisms. Clinical pulmonary infection score was done in order to determine the severity of HAP.

Results: 89% of patients were suffering from VAP, while 11% were suffering from HAP, with mean age of 63.8±10.47 years. Methicillin-resistant Staphylococcus aureus, and Klebsiella pneumoniae represented the most common isolated organisms that accounted about 65% of the studied population. The isolated microorganisms were resistant to Amoxicillin. MRSA showed highest sensitivity (44.4%) to Vancomycin and (27.8%) to Imipenem. K. pneumoniae were sensitive mainly to Imipenem (75.9%) and to Levofloxacin (44.8%).

Conclusion: Gram-negative organisms were isolated in 46% of cases, gram-positive organisms in 41% and the isolated organisms showed high resistance to most of the tested antibiotics.

Biography
Nermine El Maraghy is Associate Professor of Medical Microbiology & Immunology. He had Master’s and PhD in Medical Microbiology & Immunology from Faculty of Medicine, Suez Canal University, Ismailia, Egypt. He is a Member of Tumor Oncology Unit, Clinical Epidemiology Units at Faculty of Medicine Suez Canal University. He had great experience in the area of clinical immunology, allergy skin prick test, immunotherapy, diagnostic microbiology and infection control. He has several international publications (13) on PubMed and Google Scholar. He is Reviewer of the Infectious & Non-Infectious Diseases (online), Suez Canal University Medical Journal and Eastern Mediterranean Health Journal (online). He also has a Professional Diploma of Infection Control from AUC, Egypt.

nermine76@hotmail.com

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