
ABSTRACT

Nosocomial infections are one of the major causes of morbidity and mortality in Hospital admitted patients in ICU. Amongst many Nosocomial infections, Nosocomial pneumonia or Nosocomial Tracheo-bronchitis is one the frequent and major causative agents of death in ICU patients. Identification of infectious agents involved in Nosocomial Tracheo-bronchitis in ICU patients is required for the early detection of nosocomial infections to decrease the mortality rate. Specific antimicrobial drugs should also be categorized to early medication of patients against such nosocomial infections. Present study is designed to evaluate isolation, identification of pathogens associated with ventilated pneumonia in oral and endotracheal aspirates and to find out antimicrobial sensitivity/resistance pattern for different pathogenic bacteria isolated from ICU patients. A total of 105 clinically suspected patients of Nosocomial infections were taken which were admitted in Intensive Care Unit (ICU), Farooq Hospital. The pulmonary samples were collected like endotracheal brushing and endotracheal aspirates. The specimen collected were inoculated on culture media under aseptic condition and kept at 37°C for 24 hours in incubator. Biochemical testing and ribotyping was done to identify the correct bacterial specie. Antimicrobial sensitivity pattern was noted by using selected appropriate antibiotics. Three groups were made to distribute the data. 20.9 % were belonging to less than 25 years, 45.7 % were belonging to 26-50 years and 33.4% were belonging to more than 50 years. Out of 105 patients, 58 (56%) were male and 47 (44%) were female. Additionally, 26 (24.7%) were surgical patients and 79 (75.3%) were medical patients. Moreover, 37 (35.2%) were positive for nosocomial pneumonia and 68 (64.8%) were negative. *Pseudomonas aeruginosa* was the most frequent isolated bacteria. Other isolates included *Acinetobacter baumannii*, *Klebsiella pneumoniae*, *Escherichia coli* and methicillin-resistant *Staphylococcus aureus* (MRSA). It was concluded that nosocomial tracheo-bronchitis was one of the frequent type of nosocomial infection which was related to many systemic problem of the human health. Gram negative bacilli were the most causative pathogen and *Pseudomonas aeruginosa* was most prevalent bacteria. Antibiotic sensitivity pattern data revealed that many bacteria were showing resistance towards many routinely used antibiotics.