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MICROBIOLOGICAL PROFILE AND ANTIBIOGRAM PATTERN OF LOWER RESPIRATORY TRACT INFECTION

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ABSTRACT

Background: Lower respiratory tract infections (LRTI's) are the most frequent infections among patients. The consequences of increased drug resistance are far reaching since bacterial infection of the lower respiratory tract (LRT) is a major cause of death from infectious disease.

Objective: This study was focused on obtaining a comprehensive insight into the microbial profile, its prevalence and the antibiotic susceptibility patterns of the isolates in lower respiratory tract infections.

Materials and Methods: The present study was conducted in the Microbiology Department of a Teaching government hospital during September 2014 to December 2014. The LRT samples were obtained from the patients (n=66) of all the age and sex groups, with symptomatologies which were suggestive of LRTIs. Following culture, the isolated organisms were identified and antimicrobial sensitivity was performed by standard methods.

Results: Out of the 66 LRT specimens evaluated, 33(50%) were culture positive. Study showed predominance of Gram negative bacterial cause (66.67%) among the LRTI's with *Pseudomonas aeruginosa* (39.39%) as major pathogen followed by *Klebsiella pneumoniae* (24.24%), *Streptococcus pyogenes* (18.18%), *Streptococcus pneumoniae* (9.09%), *Staphylococcus aureus* (6.06%), *E.coli* (3.03%), Candida spp. (3.03%). Gram negative organisms showed increased resistance to routinely used antibiotic. Gram positive organisms showed 100% susceptibility to vancomycin, linezolid, clindamycin, tetracycline, amoxclav and followed by their susceptibility against gentamycin, penicillin.

Conclusion: Therefore, we can conclude that for effective management of LRTI's, an ultimate and detailed bacteriological diagnosis and susceptible testing is required to overcome global problem of antibiotic resistance.

KEYWORDS: Lower Respiratory Tract Infection, Antimicrobial Susceptible Pattern, Microbial Profile