

MICROBIAL DIVERSITY IN TRACHEAL ASPIRATE OF PATIENTS OF A TERTIARY HOSPITAL, CITY OF FORTALEZA-CE.

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Lower respiratory tract infections are important in the health services due to its severity. Therefore, rapid and accurate identification of possible pathogens in specimens such as sputum, bronchoalveolar lavage, tracheal aspirate and the like is important as an aid in the conduct of clinical decisions. Within this context, the present study aimed isolate and identify microbial founds in samples of tracheal aspirate in patients of a tertiary hospital in Fortaleza-CE. To do so, after being collected by the medical team and packaged in a sterile bottle, the material was sent to the Microbiology sector of a local private laboratory and processed according to the collection site. After fluidization (acetylcysteine and sterile 0.9% saline), the samples were seeded in CPS agar and blood agar by the exhaustion technique, and incubated in a greenhouse at 36°C for up to 48h, followed by identification. 336 patients provided the samples, which 53% were women and 47% men, with ages ranging from 22 to 91 years. In the 336 tracheal aspirate samples, 48% were (161 samples) positives. The bacteria diversity observed were *Pseudomonas aeruginosa* (31%), *Klebsiella pneumoniae* (20%), *Acinetobacter baumannii* (7,5%), *Escherichia coli* (6%), *Stenotrophomonas maltophilia* (5%), *Enterobacter cloacae* (2,5%), *Staphylococcus aureus* (1,5%), present in only one sample (0.5%) were *Proteus mirabilis*, *Elizabethkingia meningoseptica*, *S. haemolyticus*, *Burkholderia cepacia*, *Morganella morganii*, *Stephanoascus ciferrii*, *Achromobacter xylosoxidans*, *Enterococcus gallinarum*, *S. hominis* and *Staphylococcus* sp. Also, highlighting 3 species of yeasts *Candida albicans*, *C. tropicalis* and *C. krusei* in 21, 10 e 1 samples, respectively. The study data showed that the *P. aeruginosa* (31%) and *K. pneumoniae* (20%) were predominant in the samples, supported by the literature that indicates these agents as responsible for opportunistic infections in immunocompromised patients, besides being common in intensive care units. Thirdly, *C. albicans* (13%) is a yeast that is related to debilitating conditions in patients, especially the elderly, and is described as an important finding in tracheal aspirate. Finally, it is considered that this microbial diversity should be monitored to have a continuous control to evaluate the prevalence of microorganisms and to improve the quality of health care of the patient.

Key words: Tracheal aspirate, *Pseudomonas aeruginosa*, Tertiary hospital.