

Retrospective Study of Bronchial Secretions Cultures Carried out in the Microbiology Department of General Hospital of Ioannina in 2017

Authors : S. Mantzoukis, M. Gerasimou, P. Christodoulou, N. Varsamis, G. Kolliopoulou, N. Zotos

Abstract : Purpose: Patients in Intensive Care Units (ICU) are exposed to a different spectrum of microorganisms relative to the hospital. Due to the fact that the majority of these patients are intubated, bronchial secretions should be examined. Material and Method: Bronchial secretions should be taken with care so as not to be mixed with sputum or saliva. The bronchial secretions are placed in a sterile container and then inoculated into blood, Mac Conkey No2, Chocolate, Mueller Hinton, Chapman and Saboureaud agar. After this period, if any number of microbial colonies are detected, gram staining is performed and then the isolated organisms are identified by biochemical techniques in the automated Microscan system (Siemens) followed by a sensitivity test in the same system using the minimum inhibitory concentration MIC technique. The sensitivity test is verified by a Kirby Bauer test. Results: In 2017 the Laboratory of Microbiology received 365 samples of bronchial secretions from the Intensive Care Unit. 237 were found positive. *S. epidermidis* was identified in 1 specimen, *A. baumannii* in 60, *K. pneumoniae* in 42, *P. aeruginosa* in 50, *C. albicans* in 40, *P. mirabilis* in 4, *E. coli* in 4, *S. maltophilia* in 6, *S. marcescens* in 6, *S. aureus* in 12, *S. pneumoniae* in 1, *S. haemolyticus* in 4, *P. fluorescens* in 1, *E. aerogenes* in 1, *E. cloacae* in 5. Conclusions: The majority of ICU patients appear to be a fertile ground for the development of infections. The nature of the findings suggests that a significant part of the bacteria found comes from the unit (nosocomial infection).

Keywords : bronchial secretions, cultures, infections, intensive care units

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