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عنوان مقاله:

Determining the Prevalence and Detection of the Most Prevalent Virulence Genes in Acinetobacter Baumannii Isolated From Hospital Infections

محل انتشار:

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خلاصه مقاله:

Background and Aims: Acinetobacter baumannii is mostly a cause of septicaemia, pneumonia and urinary tract infections following hospitalization of patients with more severe illnesses. The aim of this study was to determine the prevalence and detection of the most prevalent virulence genes in A. baumannii isolated from hospital infections of two largest hospitals of Tehran, Iran. Materials and Methods: In this cross-sectional study, ۵۰۰ clinical specimens were obtained from various types of hospital infections over a period of ۶ month, consisting of blood (۹۸ samples), phlegm (۱۴۱), urine (۹۲), pus (۱۳۴) and cerebrospinal fluid (۳۵) from patients admitted to the Payambaran and Baqiyatallah Hospitals in Tehran. The isolated organisms were identified based on colony morphology, microscopic characteristics and various biochemical tests according to some standard laboratory methods. Conventional polymerase chain reaction (PCR) was employed to confirm the identity of the isolates. Results: A. baumannii was isolated from ۱۲۱ (۲۴.۲%) of the ۵۰۰ cultured samples. The highest isolation of A. baumannii was observed in blood samples while cerebrospinal fluid had the least. The isolation rate recorded for blood samples in this study was ۴۳.۸۷%. fimH gene was the most virulence gene detected in ۷۴% of samples, sfa/focDE and afa/draBC genes were next highly detected genes, respectively. The lowest isolations were observed in PapG III, papC and PapG II genes. Conclusions: High prevalence of A. baumannii and their virulence genes showed hospital prevalence of these bacteria, thereby causing many problems for infections control and treatment. Therefore, determining this bacterium by molecular methods and designing conservation programs for the control of different infections in parts of the hospital seems to be urgently .needed

کلمات کلیدی:

Acinetobacter baumannii, Hospital infections, Virulence genes

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