

عنوان مقاله:

Prevalence of Virulence Genes and Antibiotic Resistance Pattern in Enterococcus Faecalis Isolated from Urinary Tract Infection in Shahrekord, Iran

محل انتشار:

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خلاصه مقاله:

Background: This study aims to specify the antimicrobial resistance pattern and virulence genes of Enterococcus faecalis isolated from urinary tract infections in Shahrekord, Iran. Methods: Urine samples of ۱۰۰۰ people suspected of having urinary tract infections referred to Shahrekord medical diagnostic laboratories were examined. Biofilm assays were performed by microtiter plate test through reading the OD_{۴۹۰}. Polymerase Chain Reaction (PCR) was applied to study the virulence factors. Results: Enterococcus faecalis was detected in ۶۰ samples. After performing microbiological tests, all samples were positive in the molecular analysis. Strong, moderate and weak biofilm reactions reported ۶۶.۶۷%, ۲۵%, and ۸.۳۳% respectively. The most resistance reported to cotrimoxazole, vancomycin and amikacin and the lowest resistance to nitrofurantoin (۸.۳۳%) was reported. Statistical analysis with Fisher's exact test showed a statistically significant relationship between biofilm production and resistance to cotrimoxazole, vancomycin and cefotaxime. Prevalence of efa A, ace, gel E, esp, cyl M, agg, cyl A and cyl B in strong biofilm formation isolates was reported ۱۰۰%, ۸۷.۵%, ۸۲%, ۶۲.۵%, ۵۵%, ۳۷.۵% ۲۵% and ۲۲.۵% respectively. There was a significant relationship between the frequency of efa A and strong biofilm reaction. Conclusions: The presence of E. faecalis strains resistant to co-trimoxazole and vancomycin and present of some virulence factors is alarming the researchers. Since antibiotic resistance genes are probably transmitted among enterococci, and Staphylococci, controlling infections made by enterococci as well as the appropriate administration of antibiotics could treat the nosocomial infections effectively.

کلمات کلیدی:

Antibiotic Resistance, Enterococcus faecalis, Urinary Tract Infection, Virulence genes

لینک ثابت مقاله در پایگاه سیویلیکا:

