

#### عنوان مقاله:

The Antibiotic Susceptibility Pattern and Prevalence of vanA, vanB, and vanC Genes among Enterococcus faecalis Strains Isolated from Consumed Meat

### محل انتشار:

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#### خلاصه مقاله:

Background: Enterococci play an important role in the spread of drug resistant genes and thus resistant strains. The dissemination of vancomycin-resistant Enterococci (VRE) strains is one of the crucial issues in hospitals worldwide, especially among those hospitalized patients. This study aimed to assess the antibiotic resistance pattern and the prevalence rates of vanA, vanB, and vanC genes among Enterococcus faecalis strains isolated from meat. Materials and Methods: This cross-sectional study was performed on 181 isolates of E. faecalis isolated from consumed meat samples in Borujerd city. Antibiotic susceptibility testing was performed using the disk diffusion method according to CLSI criteria. The prevalence rate of vanA and vanB genes in vancomycin resistant E. faecalis strains was identify by PCR technique. Results: Of 181 Enterococci isolates, 100 strains (55.25%) were E. faesium, and 81 strains (44.75%) were E. faecalis. About 13 antibiotics were used in this study. The highest resistance was observed against erythromycin, linezolid, vancomycin, and penicillin antibiotics, and the lowest resistance was observed against meropenem; none of the isolates were resistant to nitrofurantoin and cefotaxime. A total of 68 isolates (83.95%) were resistant to vancomycin. Among the isolates, 38 isolates (46.9%) contained vanA gene, 21 isolates (25.9%) carried vanB gene, and 18 (22.2%) isolates contained vanA and vanB genes, but van C type was not detected in none of the isolates. Conclusion: The presence of van gene in the majority of isolates is an indicator of resistant genes large reservoir in the strains rotation in the community. Furthermore, in order to limit the incidence of VRE, the use of .antibiotics for human or animal should be taken with caution

# کلمات کلیدی:

Enterococcus faecalis, Antibiotic resistance, Vancomycin, van A / B / C

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