

عنوان مقاله:

Antibiotic Resistance Pattern and Detection of mecA Gene in Staphylococcus aureus Isolated from Iranian Hamburger Samples

محل انتشار:

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خلاصه مقاله:

Background: Among the bacteria that cause food poisoning, Staphylococcus aureus is one of the most common causes of food poisoning worldwide. The aim of this study was to investigate the presence of S. aureus strains in Iranian hamburgers, analysis of their antibiotic resistance pattern, and molecular detection of mecA gene in isolated strains. Methods: A total of 100 Iranian handmade (traditional) and packaged (factory-made) hamburger samples were investigated for the existence of S. aureus. The pattern of antibiotic resistance and the presence of mecA genes were investigated by disk diffusion and molecular methods, respectively. Data were statistically analyzed by SPSS software v. 24. Results: The prevalence of S. aureus isolated in handmade hamburgers was significantly ($p=0.008$) higher than packaged ones. Most of 39 isolated S. aureus strains were susceptible to ciprofloxacin (31 isolate), chloramphenicol (27 isolate), and trimethoprim/sulfamethoxazole (37 isolate). The highest antibiotic resistance was observed for penicillin G followed by oxacillin and tetracycline. All isolates were found susceptible to vancomycin and gentamicin. Six S. aureus isolates which were evaluated for methicillin-resistance, contained the mecA gene. Conclusion: The high presence of the S. aureus in Iranian hamburgers and the remarkable antibiotic resistance emphasize the need for policies which enforce hygienic practices within the food industry and fast food outlets. DOI:

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کلمات کلیدی:

Drug Resistance, Microbial, Methicillin-Resistant Staphylococcus aureus, Meat Products, Iran

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