

عنوان مقاله:

Molecular Typing and Drug Resistance Patterns of Staphylococcus aureus Isolated From Raw Beef and Chicken Meat Samples

محل انتشار:

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خلاصه مقاله:

Background: Staphylococcus aureus is one of the most important food-borne pathogens. The objective of this study was to determine the prevalence, molecular types and drug resistance pattern of S. aureus isolated from retail meat in Tabriz city. Materials & Methods: 60 raw meat samples (chicken and beef) were taken from different markets and were inoculated in selective Mueller Hinton broth media supplemented with 10% NaCl. Identification of S. aureus isolates was performed using conventional biochemical tests. Susceptibility to different antibiotics and genotypes of isolates were determined by disc diffusion and spa typing methods respectively. Results: Fifteen S. aureus strains were isolated from 60 different meat samples which belonged to spa types t14870, t3802, t1814, t491, t386, t3424 and spa type t14870 with the frequency of 33.3% was the most prevalent genotype among S. aureus isolates. spa types of three isolates were not found in Ridom Spa Server data base and were considered as novel types. About 46.6% of isolates were resistant to more than one antibiotic and 13.3% of isolates were identified as methicillin resistant S. aureus (MRSA). Tigecycline, imipenem and ceftaroline were found to be the most effective agents against S. aureus isolates. Conclusion: Our results revealed a 25% contamination rate with S. aureus. Most of the molecular types of isolates were found to be linked to human infections. High rate of antibiotic resistance was observed among the isolates which poses a great threat to public health.

کلمات کلیدی:

Staphylococcus aureus, MRSA, spa typing, Meat, Antibiotic resistance, مقاومت آنتی‌بیوتیک، گوشت، استافیلوکوکوس اورئوس، MRSA، spa typing

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