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P2701 Methicillin-resistant *Staphylococcus aureus* strains isolated from restaurant food samples: Panton-Valentine leukocidine, SCCmec phenotypes and antimicrobial resistance

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Background: To assess the distribution of Panton-Valentine Leukocidin, SCCmec types and antimicrobial resistance pattern of methicillin resistant Staphylococcus aureus isolated from restaurant food.

Materials/methods: Five-hundred and eighty food samples were collected and directly transported to the laboratory. Samples were cultured and S. aureus strains were confirmed using biochemical tests. MRSA strains were determined using polymerase chain reaction (PCR)-based amplification of mecA and femA genes. MRSA strains were then subjected to disk diffusion methods.

Results: One-hundred and nineteen out of 580 samples (20.51 %) were positive for S. aureus. Eightythree out of 119 S. aureus (69.74 %) were methicillin-resistant. Thirty-nine out of 83 MRSA samples (46.98 %) harbored PVL gene. Cooked chicken (37 %) had the highest prevalence of S. aureus. Marked seasonality was observed for the prevalence of bacteria. MRSA strains exhibited high resistance against penicillin G (100 %), tetracycline (92.77 %), oxacillin (83.13 %) and azithromycin (71.08 %). All MRSA bacteria were resistant to at least 2 antibiotics (100 %). TetK (80.72 %), linA (67.46 %), aadA1 (62.65 %), and msrA (55.42 %) were the most frequently identified resistance genes. SCCmec V (57.83 %), SCCmec Iva (55.42 %) and SCCmec IVb (30.12 %) were the most frequent.

C**onclusions:** Based on the high prevalence of resistant MRSA strains and also high consumption rate of restaurant foods in Iran, it is essential to exercise control over the hygienic conditions of restaurant foods to minimize MRSA strains.