

## عنوان مقاله:

Antimicrobial resistance and virulence of *Salmonella* spp. from foods in Mazandaran

## محل انتشار:

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## خلاصه مقاله:

Background: *SSalmonella* is the most important source of food-borne infections around the world. Human salmonellosis is also caused by the consumption of fresh fruit and vegetable salads contaminated with *Salmonella* spp. We aimed to detect *Salmonella* spp. in hamburgers, vegetable salads, and cream-filled pastries from various sources in Mazandaran and assess their pathogenicity and antimicrobial resistance. Materials and methods: A total of 90 samples, i.e., hamburgers, vegetable salads, and cream-filled pastries (30 samples of each), were randomly collected. Biochemical and serological tests were performed to detect the *Salmonella* spp. Antimicrobial susceptibility tests were performed by the disc diffusion method and the virulent genes were examined using polymerase chain reaction (PCR). All the examined *Salmonella* serovars in this study showed positive amplification for the virulence genes *invA*, *spv*, and *viaB*. Results: *Salmonella* spp. were detected in 54 of the 90 samples based on biochemical tests. Of these, 46 isolates (85.2%) were recovered by the 16S-23S rRNA PCR test, of which 19 (41.4%) represented the *S. typhimurium* serotype, 15 (32.7%) represented the *S. enteritidis* serotype, and 2 (4.4%) represented the *S. typhi* serotype. These *Salmonella* serotypes (19 *S. typhimurium*, 15 *S. enteritidis*, and 2 *S. typhi*; 36 in total) were sensitive to all the tested antibiotics: Ampicillin 22/36 (61.1%); Streptomycin 22/36 (61.1%); Cefotaxime 23/36 (63.8%); Gentamycin 36/36 (100%), and Tetracycline 36/36 (100%). However, a few of these serotypes exhibited slight resistance to ampicillin (4/36; 11.1%) and cefotaxime 2/36 (5.5%). Conclusion: These results would greatly help in understanding the prevalence of virulence genes and antibiotic sensitivity among *Salmonella* serovars in hamburgers, vegetable salads, and cream-filled pastries.

## کلمات کلیدی:

Hamburger, Vegetable salads and Cream-filled pastries, *Salmonella*, antimicrobial resistance, virulence gene, PCR

