

عنوان مقاله:

Antimicrobial resistance patterns, virulence gene profiles, and genetic diversity of *Salmonella enterica* serotype Enteritidis isolated from patients with gastroenteritis in various Iranian cities

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خلاصه مقاله:

Objective(s): This study aimed to evaluate antibiotic resistance profiles and presence of virulence genes among *Salmonella enterica* serovar Enteritidis (S. Enteritidis) isolated from patients with gastroenteritis in various regions of Iran. Moreover, genetic relatedness among the strains was assessed by pulsed-field gel electrophoresis (PFGE). **Materials and Methods:** From April through September ۲۰۱۷، ۵۹ *Salmonella* strains were isolated from ۲۱۱۶ stool samples. Of these strains، ۲۷ S. Enteritidis were recovered. These strains were subjected to disk diffusion tests، polymerase chain reaction (PCR) for detection of virulence genes (invA، hilA، pefA، rck، stn، ssrA، ssaR، sefA، spvC، sipA، sipC، sopB، sopE، and sopE۲)، and PFGE. **Results:** High prevalence of resistance towards cefuroxime ($n = ۲۰$ ، ۷۴.۱%) and ciprofloxacin ($n = ۱۳$ ، ۴۸.۲%) were demonstrated. All tested strains possessed invA، hilA، sefA، sipA، sopB، and sopE. The least prevalent virulence gene was rck ($n = ۶$ ؛ ۲۲.۲%). Based on combinations of virulence genes، ۱۲ virulotypes were observed. The most common virulotype was VP۲ ($n = ۱۲$ ؛ ۴۴.۴%)، harboring all of the virulence genes except for rck. PFGE typing showed only two distinct fingerprints among tested strains. Each fingerprint had completely different virulotypes. Notably، VP۴ (harboring all genes except for rck and spvC) was only presented in pulsotype A، while VP۲ was confined to pulsotype B. **Conclusion:** S. Enteritidis strains were derived from a limited number of clones، suggesting that it is highly homogenous. Future works should consider combinations of other genotyping methods together with larger sample sizes from more diverse sources.

کلمات کلیدی:

Antibiotic resistance، Gastroenteritis، PFGE، *Salmonella enterica* serotype Enteritidis، Virulence genes

