

عنوان مقاله:

Molecular survey of slyA, stn, sopB, Phop/Q and spvc genes of Salmonella typhimurium isolated from clinical samples by multiplex PCR

محل انتشار:

بیستمین کنگره بین المللی میکروب شناسی ایران (سال: 1398)

تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:

Introduction and Objectives: Salmonella is a Gram-negative intestinal organism and causes food poisoning in human. Salmonella has five virulence genes, stn, Phop/Q, spvc, slyA and sopB. These genes encode proteins in different parts of the bacteria that can confront with immune system, and the complement system and can cause death in the cell. The aim of this study was to detect slyA, stn, sopB, Phop/Q and spvc genes in Salmonella typhimurium strains isolated from clinical samples by the multiplex PCR method and to determine antibiotic resistance patterns. **Material and Methods:** In this descriptive cross-sectional study, in 2018, 60 stool samples in order to identify Salmonella typhimurium from Alborz-Karaj Hospital were collected. After confirmation of the strains by using standard biochemical and microbiological tests, an antibiotic susceptibility test was performed on a Muller Hinton Agar medium and based on Clinical and Laboratory Standards Institute (CLSI) guidelines. Multiplex PCR assay was performed to detect virulence genes using specific primers. **Results:** The results of the antibiotic susceptibility test showed that all isolates were sensitive to imipenem, gentamicin and amikacin. Also, molecular findings showed that the prevalence rates of Phop/Q, slyA and stn genes were 100%, 98.3%, and 91.6%, respectively. While sopB and Spvc genes were not observed in isolates of Salmonella typhimurium. **Conclusion:** The results of this study indicate that the prevalence of virulence genes in clinical Salmonella typhimurium isolates can serve as an alarm for the prevalence of these genes to the other Salmonella serotypes.

کلمات کلیدی:

Salmonella typhimurium, Virulence genes, Multiplex-PCR

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