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Detection of enterotoxigenic *Clostridium perfringens* in meat heated and freezed products in Iran

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Clostridium perfringens is one of the three major factors for food poisoning in humans around the world. Pathogenic potential of this bacterium depends on the ability to produce at least 13 kinds of toxins and poisons produced by it. This study was accomplished to identify and track the toxins of *Clostridium perfringens* bacterium on sausage, frankfurter and hamburger samples, distributed in Shahrekord. In total, 35 samples of sausages, 35 samples of frankfurter and 30 samples of hamburgers were collected from Shahrekord's shopping center and transferred to the laboratory immediately. Positive results in all samples after cultivation in enriched and specific environments were examined by using PCR test to confirm the presence of the bacterium and abundance determination of its toxins. In culture method weren't isolated any positive samples. However, abundance of *Clostridium perfringens* bacterium in sausage, sausage and hamburger samples have been reported respectively 8.57%, 5.71% and 16.66% using PCR method. Abundance of cpa, cpb, cpe, cpi and etx genes were detected respectively 60%, 50%, 80%, 30% and 20% in meat products. Statistically significant differences were observed between the prevalence of the bacterium in various samples and their isolated toxins ($P < 0.05$).

Biography

Amir Shakerian has completed his PhD at the age of 25 years from Islamic Azad University Science & Research Branch, Iran. He has published more than 30 papers in reputed journals in Iran and others country.

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