

## عنوان مقاله:

Ambiguous Food-Born Poisoning: Microbial Forensic Case Study

## محل انتشار:

پانزدهمین همایش سراسری سم شناسی ایران (سال: 1398)

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## نویسندگان:

Mahdi Ghasemian Lemraski - MS, Toxicology, research center of golestan legal medicine

Maryam Teymouri - MD, Forensic medicine & toxicology, Research center of Golestan Legal Medicine Organization

Hossein Zarei - GP, Research center of Golestan Legal Medicine Organization

## خلاصه مقاله:

Food-born poisoning is a prevalent disease especially in public places that can be caused by eating food contaminated with bacteria, viruses, chemicals or poisonous metals. Some of these toxications lead to mortality or sever defects. From point of prevention, therapeutic and legally, the detection of the reasons and source of contamination is indispensable. In this dramatically case study an ambiguous food born poisoning was happened in a retardation hospice in 2016 that patients were consumed the food charity. Within hours of food consumption, 14 patients experienced acute gastroenteritis, With symptoms of nausea, recurrent watery diarrhea without fever that were referred to Emergency Departments of Hospital. Three triaged of patients unfortunately died after few hours. According of legal process, the corpses were transferred to forensic medicine to determine the cause of death. In autopsy weren't found specific pathological clues, so to diagnosis of symptoms of intoxication the specimens were taken for toxicology lab. Regardless of appearance symptoms, the result of salmonella, shigella, vibrio cholorea differential test (that had carried out in victims by microbiology lab of Medical University) were negative. Based on the results of toxicology experiments, no significant evidences were observed as well. Determination of death was shrouded in mystery that finally were declared just via clinical symptoms. Such contradictions clarify that the requirement of forensic microbiology for precise detecting of food poisoning agents in our country. Forensic microbiology is a discipline dedicated to analysing evidence from a bioterrorism act, biocrime, or inadvertent microorganism/toxin release for attribution purposes independently. In fact the using of rapid and accurate forensic microbiological methods (such as nucleic acid-based assays, i.e., polymerase chain reaction (PCR), and/or immunological techniques, such as enzyme-linked immunosorbent assays (ELISA) or western blotting and proteomics method) actually increase the sensitivity and selectivity of detection for the toxin or bacteria in microbial food born poisoning outbreaks.

## کلمات کلیدی:

food-poisoning, forensic microbiology, bioterrorism, toxin

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