Editorial

Yersiniosis and Food Safety

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This special issue of Journal of Pathogens was designed to share some of the interested scientific studies published on yersiniosis, a foodborne outbreaks associated with consumption of food contaminated with Yersinia. In this issue, the focus was on yersiniosis-related foodborne illnesses, behavior of Yersinia in foods, incidence, persistence, survival, or growth, outbreaks and surveillance, zoonosis virulence and pathogenesis, detection/identification, mechanisms to grow in foods, and public health. Yersinia belongs to the Enterobacteriaceae family and is often isolated from clinical specimens. Three Yersinia strains, namely, Y. enterocolitica, Y. pseudotuberculosis, and Y. pestis, are pathogenic to humans and are widespread among various animal species and in the environment. They are transmitted to humans by the oral route and cause intestinal symptoms such as abdominal pain, diarrhea, and fever. These species are found all over the world, with a higher incidence in temperate and cold environments.

In this special issue, behavior of Yersinia enterocolitica in foods, their incidences, possible route of contamination, persistence, factors that influence the survival, or growth in food, soil, and water are reviewed by Bari et al.

The epidemiology, outbreaks and surveillance, and zoonosis of Yersinia spp. and their current status in different foods and environments are discussed by A. Rahman et al.

The molecular insight of virulence of Yersinia enterocolitica, mode of transmission of virulence, and their factors are covered by Y. Sabina et al.

The pathogenesis of Yersinia enterocolitica and Y. pseudotuberculosis in human yersiniosis, their genomics, mechanisms of infection, and host responses including the current state of surveillance, detection, and prevention of yersiniosis, are presented by C. L. Galindo et al.

The virulence plasmid (pYV) associated with the expression of phenotypic virulent in pathogenic Yersinia species and procedure to monitor the presence of virulence plasmid in Y. Pestis during storage and a convenient culture method for monitoring the presence of virulent plasmid in food are discussed by S. Bhaduri and J. L. Smith.

A highly sensitive, specific, and accurate selective chromogenic culture plate method that has been developed for detecting pathogenic Y. enterocolitica from pig tonsils was discussed by M. Denis et al.

H. Fukushima et al. reviewed and discussed the commercially available conventional and PCR-based procedures for specific detection of pathogenic Y. enterocolitica and Y. pseudotuberculosis in foods.

J. Gui and I. R. Patel reviewed and discussed the recent advances in molecular technologies and their application in detecting pathogenic Yersinia in foods.

R. Das et al. reported in their research article the presence of a novel single-stranded DNA in Yersinia frederiksenii and their genomic analysis, and they found that enzyme might be responsible for the transposition of this novel retrom element.

In the last reviewed article, S. N. Aziz and K. M. S. Aziz discussed the theoretical modeling to avoid exposure of Yersinia enterocolitica infections in foods.

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