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PATHOGENICITY OF FOODBORNE BACTERIAL PATHOGENS

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Bacterial pathogens pursue various ways for an infection occurs. The principal route of infection for foodborne pathogens is oral and the primary site of action is the intestine. Most foodborne microorganisms cause localized infection and tissue damage but some of them can spread to deeper tissues to induce systemic infection. For a successful enteric infection occur, bacterial pathogens have to use several factors that must work cooperatively in a host. Once inside the host, the pathogens must survive in the changing environment, multiply and propagate. Pathogens must find a suitable niche for colonization, which is facilitated by adhesion factors, invasion factors, and chemotaxis. In addition, bacterial toxins and enzymes protect cells from elimination by the host immune system. Bacteria are divided as invasive and non-invasive according to their ability of invasion. Food-borne noninvasive bacteria must be able to stay alive and reproduce in the intestinal lumen. Enterotoxins, sitotoxins and neurotoxins produced by foodborne bacterial pathogens are the important factors in the formation of the clinical appearance. In this paper, it was evaluated that pathogenicity of food-borne bacterial pathogens and summarized some of the strategies to get rid of the immune system as quorum sensing, biofilm formation, invasion induced phagocytosis, iron uptake, motility, chemotaxis and fibrinolisis way used by foodborne bacterial pathogens in a general perspective.

Keywords: Bacterial pathogens, pathogenicity, pathogenicity factors

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