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**SALMONELLA: EPIDEMIC OF SALMONELLA IN ECOLOGY**

Salmonella is a genus of bacteria that is responsible for worldwide burden morbidity. Concerning human disease, salmonellae can be grouped into typhoidal serotypes S. Typhi, S. enterica, S.Paratyphi A and other non-typhoidal serotypes. In high-income with high ecology standard countries, non-typhoidal salmonellae mainly cause diarrhea illness in healthy individuals; focal infection and septicemia is rare and mainly occurs in individuals with specific risk factors. Contrary, in places with low ecology standards in the sub-Saharan Africa, non-typhoidal salmonellae are the utmost cause of bacteremia and fever in both adults and children and linked with a case fatality of 20–25%.

In high-income countries, infections caused by Salmonellae are the main root of self-limiting enterocolitis in non-immunocompromised people, in which patients exhibit signs of intoxication with vomiting, profuse diarrhea, and abdominal cramps. About 5% of patients will develop secondary bacteremia with mortality rate of (1–5%). The clinical presentation of invasive non-typhoidal salmonella disease in Africa is typically febrile systemic illness resembling enteric fever; diarrhea is often absent and other clinical features are diverse and non-specific. Despite treatment with appropriate antibiotics, infections caused by salmonellae has a fatality of 22–47% in Africa.

The detection of typhoid enterotoxin and its part in the pathogenesis of typhoid fever has provided exceptional prospects for the development of needed diagnostics and prevention strategies to combat typhoid fever.

Means of prevention involves practicing non-specific basic hygienic requirements which includes: National monitoring of water’s bacteriological indices with total microbial number of ≤100; proper hand washing and keeping areas clean before and after washing after handling raw meat, (especially chicken) or raw eggs; all foods must meet all hygienic standards before they are allowed to be sold; cook meat thoroughly, until the juices run clear; avoid purchase dirty or cracked eggs; strict food handling procedures should be used when preparing dishes containing raw or incompletely cooked eggs, such as homemade ice cream and mayonnaise; avoid consumption of unpasteurized milk; isolation of infected people from childcare, preschool, school and work until they have received treatment. And finally, infected people who no longer have symptoms should take special care with hand washing if they are involved in food preparation or in caring for patients in hospital, the elderly or children.

In conclusion, In spite of the advances made in the research of Salmonellae, its infections continue to cause considerable morbidity and mortality throughout the world. Food and water-borne outbreaks continue to occur regularly, enteric fever continues to be a major public health issue in various parts of the world, and importantly Salmonellae are responsible for economic losses in livestock. However, Salmonella while being an epidemic disease, with outbreaks that can turn fatal can be prevented with the practice of hygiene.