

Incidence of *Listeria monocytogenes* in Ready-To-Eat Food Sold in Johannesburg, South Africa

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Abstract : *Listeria monocytogenes* is one of the most important foodborne pathogens associated with ready-to-eat (RTE) food. This study investigated the incidence of *Listeria monocytogenes* in 80 RTE food sold in the formal (dairy and processed meat) and informal markets (vegetable salads, beef stew, and rice) of Johannesburg, South Africa. High Enterobacteriaceae, *S. aureus*, and *E. coli* counts were obtained, which ranged from 1.9-7.5 log CFU/g. *Listeria monocytogenes* microbial counts in the food samples ranged from 3.5-6.0 log colony forming unit per gram except in cooked rice. The *Listeria monocytogenes* isolates were identified using biochemical tests and confirmed with the Biolog identification system and PCR analyses. The percentage incidence for *Listeria monocytogenes* in ready to eat food was 12.5%. When Minimum Inhibitory Concentrations were under consideration, all disinfectants were effective against *Listeria monocytogenes* strains. For antimicrobial work, rates of resistance amongst the antibiotics ranged from 17-100%. Therefore, more effective preventive control strategies for *Listeria monocytogenes* are needed to reduce the prevalence of the pathogen in RTE food that is sold in Johannesburg.

Keywords : *Listeria monocytogenes*, *Listeria* species, ready to eat food, sanitiser efficacy

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