CARRIER STATUS FOR LISTERIA MONOCYTGENES AND OTHER LISTERIA SPECIES IN FREE RANGE FARM AND MARKET HEALTHY INDIGENOUS CHICKENS AND DUCKS

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ABSTRACT

Background: Listeria organisms are documented to be zoonotic; one of the sources of infection is the domestic fowl where it could occur as an apparent infection. The carriage of Listeria monocytogenes and other Listeria in indigenous birds has not been documented in Kenya.

Objective: To establish whether healthy looking indigenous chickens and ducks could be carriers of Listeria monocytogenes and other Listeria species.

Design: Field survey of indigenous chickens and ducks in three districts of Kenya. Embakasi and Dagoreti divisions in Nairobi district; Athi river division in Machakos district; and Ngong division in Kajiado district, in Kenya.

Subjects: One hundred and thirty six indigenous chickens and 39 ducks reared under free range scavenging system in Nairobi, Machakos and Kajiado districts, in Kenya, were sampled.

Methods: In surveying the birds, the cloacal and pharyngeal swabs were taken from each bird separately using sterile cotton - tipped applicator swabs. The swabs in saline were transported in a coolbox to the laboratory for bacterial isolation and characterization. Interventions: None (only comprised farmed and the traded birds).

Main outcome measures: Isolation of Listeria species and pathogenicity of Listeria isolates.

Results: Two Listeria monocytogenes and seven other Listeria species were recovered from the oropharyngeal swab samples of farm and market chickens but none from respective cloacal swabs. No Listeria was recovered from either oropharyngeal or cloacal swabs of farmed duck and slaughter chickens. Traded chickens yielded more Listeria isolates as compared to farmed chickens.

Conclusion: This study shows that indigenous chickens in Kenya are carriers of Listeria monocytogenes and other Listeria species.