Comparison of the Carrier Status of P. multocida Between Farm and Live Market Indigenous Birds

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Abstract

A total of one hundred and seventy one indigenous birds from smallholder farms and those traded in market centers in Nairobi were examined for the presence of Pasteurella multocida. Of these, 135 were farmed and 36 were market birds. They comprised of 117 indigenous chickens and 54 ducks. Three hundred and forty two oropharyngeal and cloacal swabs were collected from them and cultured onto blood agar and other media. The recovered isolates were characterized using colonial morphology, biochemical and other tests. Twenty three P. multocida isolates were recovered: 11/135 (8%) from farm and 12/36 (33%) from the market birds. Majority of the P. multocida isolates were Pasteurella multocida gallicida 11/23 (48%), followed by Pasteurella multocida multocida 7/23 (30%) and Pasteurella multocida septica 5/23 (22%). Pasteurella multocida gallicida isolates were encountered more in the market birds, while Pasteurella multocida multocida isolates were more in farm birds. Ducks had more isolates than chickens. The concentration of the birds at market areas appeared to favor the maintenance of P. multocida in the cages, crates and pens. Market birds may, therefore, play a major role in the spreading of P. multocida.