Microbiological and parasitological survey of zoonotic agents in apparently healthy feral pigeons

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Abstract

Microbiological and parasitological investigation was carried out on a colony of feral pigeons, located in a green area near the main hospital of a Central Italy city. One hundred pigeons were submitted to clinical examination. Cloacal swabs, grouped in pool of 4 samples, were analyzed to detect the presence of Coxiella burnetii, Chlamydia psittaci, Chlamydophila spp. using a biomolecular procedure, while individual cloacal samples were examined for Salmonella spp., Campylobacter spp., and yeasts by means of a specific culture media. An ELISA test was used to determine the presence of Giardia spp., and Cryptosporidium spp. coproantigens. Individual serological samples were also tested with the modified agglutination test (MAT) in order to detect antibodies against Toxoplasma gondii. The pigeons did not show any clinical signs. The cloacal pools proved to be negative for C. burnetii DNA while three pools were positive for C. psittaci or Chlamydophila spp. DNAs. Salmonella spp. was not detected. C. jejuni and C. coli were found in 13% and 4% of the samples, respectively. No Giardia spp. and Cryptosporidium spp. were detected. Thirty-three out of 100 samples (33%) were positive for yeast colonies. The seroprevalence for T. gondii was 8%. Although with moderate incidence, potentially zoonotic agents were present thus highlighting the need for sanitary surveillance on feral pigeon colonies.

Key words: feral pigeon, zoonotic agent, hospital, public health