Avian tuberculosis in naturally infected lofts of domestic pigeons, different diagnostic approaches and its zoonotic significance

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The aim of the study was to investigate clinical signs, necropsy and radiographic findings, histopathology, serum protein profiles, hematological values, isolation, molecular identification of Mycobacterium avium sub sp. avium (MAA) in lofts of domestic pigeons suspected of avian tuberculosis. For this purpose, eighty pigeons were selected out of lofts of more than 600, based on their clinical signs. Fifty MAA isolated from pigeons. All acid fast bacillus isolates were tested by the PCR assays targeting the 16S rRNA, IS1245 and IS901 genes. Swollen joints in legs and wings, consequent lameness and inability to fly were the most important clinical signs. In necropsy findings, liver was the most affected organ with lesions. The least affected organ was the lungs, also no macroscopic lesions were found in the gonads, kidneys and CNS. In addition to radiographic and histopathological findings, serum protein profiles and hematological studies confirmed the disease and they were consistent with other studies about avian tuberculosis. The importance of avian tuberculosis and the risk of the zoonotic disease and keeping pigeons in urban area motivated us to do a study in domestic pigeons naturally infected with MAA.

Biography
Kaveh Parvandar Asadollahi completed his DVM and received his PhD from Shahid Chamran University (Formerly known as Jondishapur). He is the technical Director of Hipra poultry vaccines in Iran. He has published 4 articles regarding avian tuberculosis and has two articles currently under review regarding this issue; he plans to publish another article about this disease in the near future.

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