

Molecular detection of *Mycoplasma Synoviae* in broiler flock with respiratory injury in Ahvaz slaughterhouse

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Abstract

Mycoplasmosis is one of the most important diseases in the poultry industry. *mycoplasma synoviae* is one of the important disease-causing factors in chickens, which causes respiratory tract infection and synovitis. and leads to significant economic losses to the poultry industry all over the world. In this study, mycoplasma infection of broiler flocks in Ahvaz slaughterhouse was investigated using molecular method. For this purpose, 200 samples of lung and trachea tissues and joint fluid of hock joint were collected from 20 broiler flocks with macroscopic symptoms and 20 samples from the mentioned parts from apparently healthy broiler chickens of each flock in the winter season. Tissue DNA extraction was performed. The polymerase chain reaction (PCR) was performed to detect *Vlha* gene of *mycoplasma synoviae*. Of the 200 samples, 55 lungs and 45 tracheas from flocks with macroscopic symptoms and 4 lung and trachea samples from apparently healthy birds were positive. In the molecular examination of joint samples, no positive cases were observed for the presence of *mycoplasma synoviae*. The PCR products of positive samples were sent to Gene FanAvaran Company for sequencing. The sequence of a part of the *Vlha* gene of this isolate was compared with other isolates in the gene bank and it was about 99% similar to the previous Iranian isolates (IRG11/C/09, IRG6/C/08, IRG1/C/08). According to the results of the present study, *mycoplasma synoviae* is common among broiler flocks under investigation in Ahvaz slaughterhouse. Therefore, the policy makers of the health system of the poultry industry should prevent the economic losses caused by this disease with preventive measures.

Key words: *Mycoplasma Synoviae*, broiler poultry, PCR, Ahvaz

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