DOI: 10.22055/ivj.2025.500817.2760 **Short Paper**

Molecular and hematological investigation on *Anaplasma marginale* infection in Najdi and native goats in Ahvaz

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Abstract

Anaplasma is one of the obligate intracellular microorganisms that infect erythrocyte of mammals, especially ruminants. Considering the important role of *Anaplasma marginale* (*A. marginale*) for anaplasmosis in cattle, several studies have shown infection with this pathogen in other livestock species, but there is no information about its infection status and pathogenicity in Najdi goats. Therefore, the present study aimed to investigate the molecular and hematological factors of *A. marginale* infection in Najdi and native goats in Ahvaz city. To do it, blood samples were collected from 150 apparently healthy (76 Najdi and 74 native) goats from 6 herds in suburb of Ahvaz city, and infection with *A. marginale* was investigated by hematological and PCR methods. In the blood smear microscopy examination anaplasma-like intra-erythrocyte inclusion bodies were diagnosed in 22.4% and 29.7% of Najdi and native goats, respectively. The whole blood PCR also revealed *A. marginale* infection in 27.6% and 32.4% of Najdi and native goats, respectively. There was no statistically significant difference between the values of hematological indices in the infected and non-infected goats. Multispecies husbandry and grazing were observed in all studied goat herds. Considering the lack of significant difference in the hematological parameters in the infected and non-infected goats, it seems that infected goats are important as a reservoir for *A. marginale*. The infection with *A. marginale* in the studied goats may be affected by the simultaneous rearing of different livestock species.

Key words: *A. marginale*, Najdi goat, Multispecies husbandry, PCR, Smear microscopy

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