عنوان مقاله:

Prevalence and phylogenetic analysis of Theileria equi in Iranian dromedaries

محل انتشار:

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خلاصه مقاله:

Considering the importance of Theileria equi infection in horse breeding industry and marketing, in the present study, we aimed to determine the prevalence of T. equi among dromedaries in central Iran, where a considerable number of camels and horses are raised and equine theileriosis is quite prevalent. For this purpose, a total of ۱۶۱ blood samples from camels were examined in terms of T. equi infection, using parasitological and molecular methods. For molecular detection of T. equi, primers targeting the ۱۸S rRNA gene were selected. Microscopic examination revealed that ۰.۶% of camels were positive for the intraerythrocytic stage of Theileria species, while polymerase chain reaction (PCR) method detected T. equi in ۷ (۴.۳%) out of ۱۶۱ camels. Sequences of ۱۸S rRNAs from all the isolates showed more than ۹۹% homology to each other and T. equi isolates in the GenBank. With respect to the single-nucleotide substitution in ۱۸S rRNA gene of the studied camels, three different genotypes were identified and submitted to the GenBank. Considering the homology between ۱۸S rRNA sequences of T. equi in the studied samples and those available in the GenBank, the phylogenetic tree formed three distinct, but highly-related clusters. In this study, age, gender, and locality were not determined as risk factors for T. equi infection in camels. In conclusion, this study .demonstrated that T. equi is present among Iranian camels

کلمات کلیدی:

Theileria equi, Camel, Polymerase Chain Reaction, Phylogenetic analysis, Yazd