

A New Focus of Texas Cattle Fever in Southeast of Iran

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Abstract

Although there is not any report of the outbreak of *Babesia bigemina* in south, southeast and central regions of Iran, some clinical evidences of Texas Cattle Fever were observed in some native cattle in Sistan region, southeast of Iran. We conducted the present study to morpho-molecular identification of *Babesia bigemina*, to find the tick-vector and evaluation of clinical symptoms in the affected cattle. In spring 2018, the presence of *Babesia bigemina* piroplasm was evaluated in the blood specimens of 17 cattle that have been diagnosed with high fever, hemoglobinuria and severe anemia with Giemsa staining method. The collected ticks from affected cattle have been identified morphologically. The clinical symptoms were analyzed and treatment was performed with imidocarb dipropionate. The PCR procedure amplified the *Babesia bigemina* specific fragment of ITS1-5.8S-ribosomal DNA in blood specimens and tick salivary glands. The morpho-molecular investigations showed *Babesia bigemina* piroplasm in the blood of 8 numbers of investigated cattle. Also, the ITS1-5.8S-ribosomal DNA of *Babesia bigemina* was detected in the salivary glands of *Rhipicephalus annulatus* collected ticks. The clinical disorders of the disease have been treated after administration of Imidocarb dipropionate. The findings of the present study illustrate a new focus of Texas Cattle Fever and its vector in Sistan region, southeast of Iran.

Key words: Texas Cattle Fever, *Babesia bigemina*, *Rhipicephalus annulatus*, Hemoglobinuria, PCR

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