Poster presentation

Detection of *Theileria annulata* in blood samples by PCR and comparison with staining method in northwest of Iran

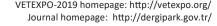**Ahmad Nematollahi, Parisa Shahbazi, Samad Ebrahimian**

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Abstract

Bovine theileriosis caused by *Theileria annulata* is a tick-borne disease of great economic importance in tropical and subtropical regions of the world. The diagnosis of theileriosis is usually carried out by blood smear staining technique, which is not sufficiently sensitive to detect the piroplasms in the carrier animals. Aim of this study was comparison of efficacy of routine microscopic and PCR methods for diagnosing of theileriosis. In this study a total of 100 blood samples were collected from cattle in Urmia district in summer 2018. Samples were detected by Giemsa staining and microscopic observation. Also samples were detected by PCR method based on using the specific primers from the major merozoite-piroplasm surface antigen sequence of T. annulata (Tams-1) gene. In microscopic method (7%) samples were positive. However, the PCR detected 38 samples (38 %) positive for T. annulata. Our study suggests that the PCR based screening is more sensitive and accurate method for diagnosis of theileriosis in cattle.

Keywords: *Theileria annulata*, PCR, cattle

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