#### Abstract

Theileriosis is a important disease transmitted by ticks in sheep that are caused by various species of theileria. Among these species theileria lestoquardi (theileria Hirsi) possess high pathogenesis. While other species, including Theileria Ovis in small ruminants, product the slight and subclinical infection. that's why differentiation and identification of the carriers parasite mites is very important for epidemiological studies and designing control programs. This research was conducted to Molecular study on detection of carriers and Theileria species In the city of Zabol in the spring and summer of 1394. During the study, 80 various sheep were clinical examinations and their blood samples and ticks were collected. the presence of Theileria parasites in each sample was evaluated by using PCR method. PCR product analysis showed that, 50 cases of 80 blood samples taken from sheep (62/5 %), were infected by theileria. frist time PCR product analysis by Nested PCR using Specific primers showed that Infection with Theileria ovis and Theileria lestoquardi respectively is included 67/45 and 32/55 of cases. It is worth mentioning that no cases of contamination along Theileria species was isolated. Then collected Ticks were detected and identified on the basis of species and gender. Overall 110 ticks were isolated that 2 genera and 6 species was assessed including Rhipicephalus bursa 9/1 % Rhipicephalus Sanguineus 29/1 % Rhipicephalus Turanicus 10/9 % Hyalomma asiaticum asiaticum 23/63 % Hyalomma anatolicum excavatum10/9 % Hyalomma anatolicum anatolicum16/37 %.

In this study Rhipicephalus ticks Sanguineus ticks of dominant sheep, was introduced in the region. Then their contamination was evaluated using PCR method and was identified 9 Hyalomma asiaticum asiaticum, 4 and 5 Rhipicephalus Sanguineus, Rhipicephalus Turanicus Infected theileria Parasite. According to the role of these 3 ticks in the transfer theileria, Important ways to combat against the above ticks should be considered.



## University of Zabol

#### Graduate schoo

### Faculty of Veterinary Medicine

# Thesis for doctorate degree in Veterinary Medicine

# Molecular Detection of Theileria Spp in Sheep and Vector ticks in Zabol

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