Abstract

Anaplasmosis **is caused by various species of *Anaplasma*, and is especially important for livestock breeders, leading to weight loss, abortion, reduced milk yield and, ultimately, death of livestock. The disease is transmitted to mammalian hosts by biological means by hard mites and mechanically by flocking bugs. Some species of *Anaplasma*, such as *Anaplasma*, Phagocytosis, are the causative agent of human *anaplasm*, causing a life-threatening illness with mortality in humans. Considering that in the southeastern region of the country the cultivation and keeping of the camel is of great importance. Therefore, the control and diagnosis of the disease in this area is very important. In this study, the contamination rate of *anaplasma* species in camels of Zahedan city was evaluated by molecular analysis using the Takapouzite extraction kit (genomic DNA isolation from the blood by proteinase K). At first, 100 samples of camel blood were examined by microscopy, 39 (39%) of which were erythrocytes containing anaplasmic enzymes. 100 samples were amplified using the Nested- pcr molecular method and with specific primers, which resulted in the positive *Anaplasma cameli, Anaplasma platys*. Positive samples were transferred to the Takapouzist Company for sequencing. The results of sequencing and BLAST of the samples showed the absence of *Anaplasma marginale*, *A.Ovis* and *A.phagocytophilum* in Zahedan camels. *Anaplasmic* contamination of *Anaplasma platys* 33(84/60%) and *Anaplasma cameli* 6(15/40%) species is confirmed in Zahedan camels located in the southeast of the country**

Keywords*: **Anaplasmosis- Zahedan camels- Anaplasma cameli- Anaplasma platys-** **Nested PCR***

University of Zabol

Graduate school

Faculty of Veterinary Medicine

Department of Medicine Pathobiology

Molecular study of *Anaplasma* species in camels of Zahedan, Saravan -Iran

Supervisors:

Dr. R.NABAVI

Advisors:

DR. V.NOMAN

DR.M. Ganjali

By:

Roullah zeinali

DECEMBER 2018