Abstract:

Today, with the advancement of science and the increase of medical and veterinary information, most scientific studies are focused on a specific topic and researchers are trying to investigate subjects thoroughly and accurately. This study has been done to identify the *Anaplasma spp* in long eared hedgehog in Sistan region by molecular method specifically and accurately. *Anaplasma* is an obligate intracellular bacterium that transmitted by ticks and has different genus and wide species of host. *Anaplasma phagocytophilum* is a zoonotic pathogen between human and other mammals. Hedgehogs are one of its hosts and could be danger for human. In terms of transmission of disease. In this study 53 Hedgehog was collected as sample in spring 2017 and 2018 from different area around Zabol town. 100% of captured Hedgehogs was infected with ticks and 18/6% of their ticks was *Rhipicephalus turanicus* and 81/4% of them was *Rhipicephalus sanguineus*. From 53 hedgehog's blood samples in 2 samples *Anaplasma marginale* was detected by polymerase chain reaction. Ruminant specially cow is the main host of *Anaplasma marginale* and in Sistan region infection with this pathogen is in high level but there is not any report of *Anaplasma marginale* in Hedgehogs and the result of this study show that Hedgehogs may be are the accident host for *Anaplasma marginale* and this pathogen can transmit from ruminant to Hedgehogs by *Rhipicephalus* ticks.

Key words: long eared Hedgehog, *Rhipicephalus* tick, *Anaplasma*, Zabol, Iran.
Identification of Anaplasma species in long eared hedgehog, Sistan, Iran

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