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Case Report Open Access

Babesia, a Tick Transmitted Zoonotic Disease in Falcons

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Abstract

A pair of the domesticated falcons *Laggar falcons* (*Falco jugger*) from the District Jhang, Pakistan was presented with the history and the clinical conditions of the high rise in the body temperature, letharginess, signs of paralysis, off feed from 2 days and the pale colored conjunctiva was presented. Suspected case of the *Babesia* was confirmed and treated. The bird showed complete recovery. This is the relatively uncommon presentation of such case in avian family.

Keywords: *Laggar falcons*; *Babesia*; Tick; Zoonotic disease; Imizole

Introduction

Falconry, the sports of the rich people showing the deep roots in the area like Gulf States. This is also emerging in the Pakistan but this is still limited. Training of these birds to prey is very time consuming resulting in the swift predators. Training of these raptors according to the Complete Falconer [1] comprises of feeding them from the hand and learning to jump to the hand for feed and at end resulting in the flying predators. Breeding ground of these falcons is in the Pakistan from the Black Sea to the Kirgiz steppes [2].

Babesia being a zoonotic infectious disease with the subspecies of *Babesia shortti* and *B. moshhoushii* are considered to be pathogenic in the falcons [3]. As this disease is transmitted by the ticks, so proper care, diagnosis and treatments must be conducted.

Case Presentation

Two domesticated female falcons weighing 848 g and 905 g were presented at the Teaching Veterinary hospital of the University of Agriculture Faisalabad from the area of District Jhang, Pakistan. According to history bird was lethargic and off feed from last 2 days. Bird was unable to stand; temperature was high, difficulty in breathing, increase respiratory rate and the infestation of the ticks. Radiographic diagnosis was performed and there were no signs of traumatic injury. Complete fecal test was performed for the presence of any kind of the parasitic eggs and parasites itself.

Treatment Protocol

As the bird's condition at that moment was poor so it was administered with 3.5 mg Dexa™ (Dexamethesone) in the wing vein. 6 mg/kg dose rate of the imizole® was administered S/C for the next 2 weeks, Birds did not showed any kind of the side effects and returned to the normal feed intake.

Discussion

First reported case in the areas of the Pakistan *Babesia* in the falcons is completely treated by the *Imizole* administration. *Babesia* is a tiny oval shaped plasmodium like parasite with white colored vacuoles are present in the RBCs this organism is reproduced by the asexual reproduction. These tiny parasites effects the membrane of the RBCs, by perforating them, resulting in the lysis of the red blood cells. Transmission of these parasites is by the ticks especially ixode tentative diagnosis of the *Babesia* was done by the presence of the ticks on the body. As a confirmatory diagnosis slides with blood smear were prepared and giemsa staining was performed. The pigmented RBCs with elevated erythrocyte sedimentation rate were observed. Immunofluorescent assay was performed and an antibody titer of 64 was considered as seropositive. Organism was considered to be *B. shortii*, which has been previously documented in Saker Falcons in Saudi Arabia [4]. Good managemental practices and control of the ticks may result in the prevention of disease.

References

1. Beebe FL (1992) The Complete Falconer.
2. Cramp S (1987) Handbook of the Birds of Europe, the Middle East and North Africa. Hawks to Bustards. Oxford University Press, UK 11: 216-225.
3. Peirce MA (2003) Haematozoa. In Avian Medicine. Samour J (ed.), pp: 245-252.
4. Samour JH, Peirce MA (1996) Babesia shortti infection in a saker falcon (Falco cherrug). Vet Rec 139: 167-168.