International Journal of Veterinary Sciences and Animal Husbandry

ISSN: 2456-2912
VET 2024; SP-9(3): 145-146

www.veterinarypaper.com
Received: 13-03-2024
Accepted: 15-04-2024

B Ajith Rathnam
Graduate Student, Department of Veterinary Medicine, College of Veterinary Science, Rajendranagar, Hyderabad, India

K Satish Kumar
Professor and University Head, Department of Veterinary Medicine, PVNRTVU, Hyderabad, India

B Dasma Bai
Assistant Professor, Department of Veterinary Parasitology, College of Veterinary Science, Rajendranagar, Hyderabad, India

Corresponding Author:
K Satish Kumar
Professor and University Head, Department of Veterinary Medicine, PVNRTVU, Hyderabad, India

A report on *Tachygonetria* infestation in a turtle and its management

B Ajith Rathnam, K Satish Kumar and B Dasma Bai

Abstract
Chelonians are common reptiles that are being domesticated. Endoparasitic infestation is one of the major concern of health issues that may cause signs of anorexia, regurgitation and obstruction. A 7 year old male turtle was presented to the VCC, CVSc., Rajendranagar with a history of abnormal faecal excreta and presence of cream coloured thready structures in the tank where the turtle was placed. Detailed history revealed that he was showing disinterest towards food but with normal vital parameters. Microscopic examination of the fecal sample revealed the presence of elliptical shaped ova with actively moving larva. The sample also revealed the presence of active larvae with a cylindrical elongated body, with a pointed head, thus confirming the pinworm infestation. The turtle was treated with a single dose of fenbendazole at 50 mg/kg, along with multivitamin drops. However, the regimen was repeated after two weeks. Following therapy, the turtle regained its normal activity along with interest towards food.

Keywords: Pin worm, *Tachygonetria sps*., red eared slider, turtle, fenbendazole

Introduction
Exotic reptiles originating from the wild, in particular, are often infected with a variety of different invasive parasites, harbouring a broad spectrum of endogenous parasites including diverse species of protozoans, nematodes, cestodes, pentastomids, acanthocephalans and trematodes (Juan-Sallés *et al*., 2009 and Scullion and Scullion, 2009) [1, 2]. Nematodes can cause severe digestive agglomerations that compromise the intestinal function and can cause chronic weight loss, impaction, and even death in herbivorous reptiles (Loukopoulos *et al*., 2007) [3]. One such case report on Oxyurid infestation in a client owned turtle and its successful management is documented.

Oxyurids are the most common gastrointestinal nematode among lizards and chelonians, especially herbivorous reptiles. Clinical signs of anorexia, regurgitation, obstruction, and abdominal distension have been attributed to the presence of such parasites in these cases (Martinez-Silvestre, 2011) [4]. Abdominal distension is an undetectable sign in chelonian species like turtles and tortoises due to the presence of the shell. Occupants of the intestinal lumen such as pinworms (Oxyuridae) deprive the host of important nutrients. Oxyurids such as the *Tachygonetria* genus are common in the colon of chelonians. The life cycle is direct, with infection by ingestion of an embryonated egg (Yorke and Maplestone, 1926 and Traversa *et al*., 2009) [5]. Although heavy infections are common and usually cause no apparent ill effects, intestinal impaction and death have been reported. In the present study a case report of pinworm infestation in turtles was taken up and also successive treatment involved is also observed.

Case history and observations
A 7 year old male turtle (red eared slider) was presented to the VCC, CVSc., Rajendranagar with a history of abnormal faecal excreta and presence of cream coloured thready structures in the turtle tank (fig 1). It was also reported that the turtle was showing disinterest towards food.

The vital parameters were normal. The faecal samples were collected and sent for laboratory examination.

Microscopic examination

A small amount of fecal sample was properly emulsified with water, placed on a dry glass slide and made a thin layer for microscopic examination. Examination of thin film of the fecal sample under 10x revealed presence of elliptical shaped small sized ova, few of them were also carrying actively moving larva. Microscopic examination also revealed presence of active larvae with a cylindrical elongated body, with a pointed head (fig 2), thus confirming the presence of pinworm infestation.

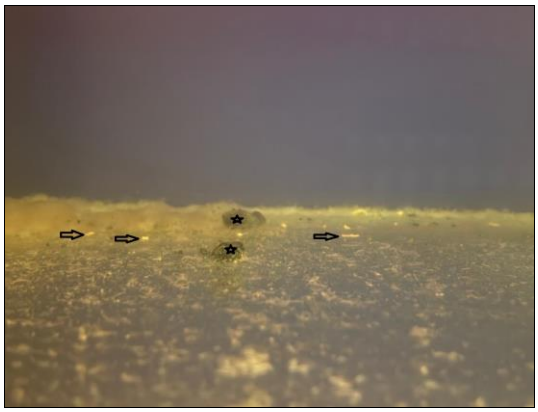

Fig 1: Multiple cream coloured thready structures of various sizes (arrow) in the turtle tank along with faecal material (asterick)

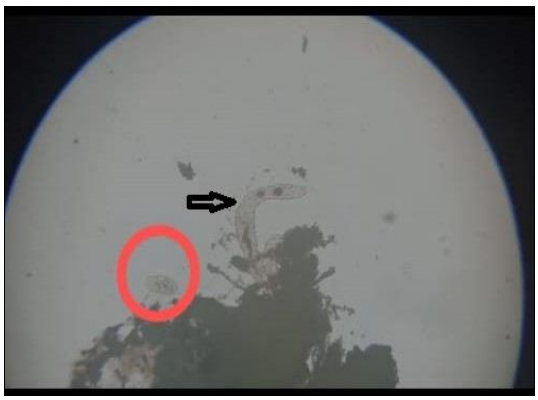

Fig 2: Ova of *Trichuris spp* (red circle) and the larvae (arrow) noticed under microscope (40X)

Treatment and Discussion

Therapy was instituted with a single dose of fenbendazole at 50 mg/kg, along with multivitamin drops. However, the regimen was repeated after two weeks. Following therapy, the turtle regained its normal activity along with interest towards food. Pinworms are common endoparasites in turtles worldwide, including in India. These parasites typically infect the digestive tract of turtles and can cause health issues if left untreated. Symptoms of pinworm infestation in turtles may include weight loss, decreased appetite, lethargy, and irritation around the cloaca. Pinworm eggs of reptiles are yellowish to yellow brown, have a thick egg shell, have one polar operculum and one side of the egg is flattened while the other side is convex. Adults live in the distal part (large intestine) of the intestinal tract where they feed on ingesta. Unlike other roundworms they do not migrate through body organs to mature and do not possess buccal organs to allow them to attach themselves to the intestinal mucosa (Baker, 2009) [6]. Oxyurids, or pinworms, are small to medium-size nematodes (2 mm to 7 mm in length), with a mouth bearing three lips, an esophagus which terminates in a bulb, and a simple intestine that lacks a diverticulum. The males have spicules which are used as taxonomic keys. Female pinworms have a posterior extremity that is conical and pointed. The eggs are large and smooth. Adult worms measure 1.5 mm to 4.6 mm in length (Forstner, 1960 and Yorke and Maplestone, 1926) [7]. They possess a mouth with six small lips, a long esophagus with a terminal bulb, and a simple intestine. The female has a short conical tail, and the vulva is posterior to the middle of the body. The male has a single, short spicule and a gubernaculum (Baker, 2009) [6]. Similar features are noticed in the present case and thus confirming it as *Tachygonetria sps*. Fenbendazole is the drug of choice for treating nematode infections in reptiles. It can be administered as a liquid, or the powdered form can be placed on food (Baker, 2009) [6].

Conclusion

Pin worm infestation is the most common parasitic infection in reptiles especially those which are in held in close captivity. Though they don't cause much damage to the animal, heavy infestation may lead to sudden death. The present turtle that was found positive for *Tachygonetria sps* was treated successfully with fenbendazole. Therefore, treatment of the pinworm immediately helps in eradicating the parasitic infections which help in preventing the secondary infections associated with pin worms. However, prophylactic treatment such as regular deworming is also helpful in preventing such intestinal parasites infecting the pet turtles.

References

1. Juan-Sallés C, Garner MM, Nordhausen RW, Valls X, Gallego M, Soto S. Renal flagellate infections in reptiles: 29 cases. Journal of Zoo and Wildlife Medicine; c2014, 100-109.
2. Scullion FT, Scullion MG. Gastrointestinal protozoal diseases in reptiles. Journal of Exotic Pet Medicine. 2009;18(4):266-278.
3. Loukopoulos P, Komnenou A, Papadopou-los E, Psychas V. Lethal Ozo-laimus megatyphlon Infection in a Green Iguana (Iguana iguana rhinolopa). Journal of Zoo and Wildlife Medicine. 2007;38:131-134
4. Martinez-Silvestre A. Massive Tachygonetria (Oxyuridae) infection in a Herman's tortoise (*Testudo hermanni*). Consult Journal; c2011. p. 409-412.
5. Yorke W, Maplestone PA. The nematode parasites of vertebrates. Blakeston, Philadelphia; c1926. p. 536.
6. Baker DG. (Ed.). Flynn's parasites of laboratory animals. John Wiley & Sons; c2008.
7. Forstner MJ. Ein Beitrag zur Kenntnis parasitischer Nematoden aus griechischen Landschildkröten. Z. Parasitenk. 1960;20:1-22.

How to Cite This Article

Rathnam BA, Kumar KS, Bai BD. A report on Tachygonetria infestation in a turtle and its management. International Journal of Veterinary Sciences and Animal Husbandry. 2024;SP-9(3):145-146.