



CASE REPORT

Gastrointestinal parasites found in a green iguana (*Iguana iguana*)

Ozlem Derinbay Ekici*, Nermin Isik, Feyzullah Guclu

Özet

Ekici ÖD, Işık N, Güçlü F. Bir yeşil iguanada (*Iguana iguana*) bulunan gastrointestinal parazitler. **Eurasian J Vet Sci, 2011, 27, 2, 131-134**

Bu vaka raporu, bir yeşil iguana (*Iguana iguana*)'nın sindirim sisteminde bulunan nematod ve cestodların varlığını ve tedavisini bildirmek amacıyla sunuldu. Sahibi tarafından iştahsızlık ve kabızlık şikâyetiyle Parazitoloji Anabilim Dalı laboratuvarına getirilen dokuz aylık, 95 g ağırlığında yeşil iguana (*Iguana iguana*)'nın dışkı muayenesinde nematod (*Oxyuris* spp.) ve cestod (*Mesocestoides* spp.) yumurtaları görüldü. Hayvan iki hafta arayla ivermektin (0.2 mg/kg, PO) + praziquantel (10 mg/kg, SC) kombinasyonu ile tedavi edildi. Yapılan son dışkı muayenesinde parazit yumurtasına rastlanmadı. Tedaviden sonra iguananın normal iştah ve sağlığına kavuştuğunu bildirdi.

Abstract

Ekici OD, Isik N, Guclu F. Gastrointestinal parasites found in a green iguana (*Iguana iguana*). **Eurasian J Vet Sci, 2011, 27, 2, 131-134**

This case report reported that nematode and cestod eggs found in the digestive system of a green iguana (*Iguana iguana*). A 9 month-old green iguana (*Iguana iguana*) weighing 95 g was presented by its owner for physical examination to parasitology laboratory. The owner said that nutritional condition was poor. The nematode (*Oxyuris* spp.) and cestode (*Mesocestoides* spp.) eggs were diagnosed by fecal flotation and the animal was treated with ivermectin (0.2 mg/kg, PO) plus praziquantel (10 mg/kg, SC) in two weeks apart. The last fecal examination was negative. After treatment, owner of the iguana said that iguana had a normal appetite and well appearance.

Department of Parasitology, Faculty of Veterinary Medicine,
University of Selcuk, Campus, 42075, Konya, Turkey

Received: 27.03.2011, Accepted: 11.04.2011

*oderinbay@selcuk.edu.tr

Anahtar kelimeler: Helmint, yeşil iguana

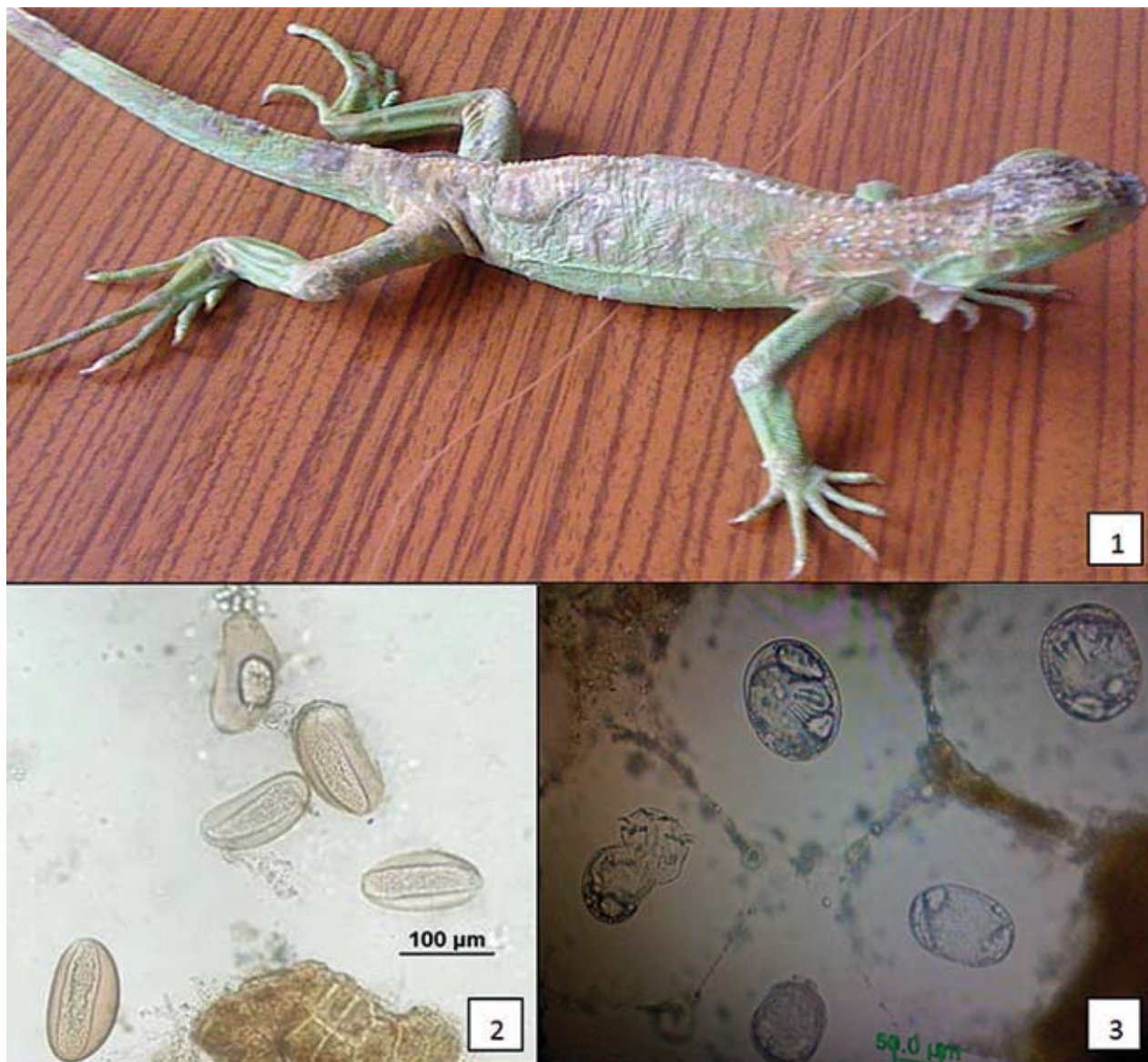
Keywords: Helminth, green iguana

Lizards inhabit a wide variety of ecosystems and there are approximately 4450 different species. The iguanids include the largest number of New World species. This group contains green iguana, anole, basilisk, horned lizard and the spiny lizard. The popularity of iguanas has increased enormously in recent years as an exotic pet animal. However, owners of these animals have not enough knowledge about the diseases of iguanas. Generally, they take the sick animals to veterinarian at the last stages of the disease. Also they neglect the animals nutrition and cage conditions. The iguanas which are brought from abroad carry the parasites country to country. For these reason, veterinary profession should deal with this new area (Girling 2003, Judah and Nuttal 2008, Maden 2010).

Reptiles are infected with a big diversity of endoparasites (Jacobson, 1986). Assessment of reptiles' interms of parasites is important for the health status of the animal. A variety of nematodes and cestodes

can effect iguanas, including various species of nematodes; *Oxyuris* spp., *Capillaria* spp., *Strongyloides* spp., and cestodes; especially tapeworms are encountered in lizards. *Oxyuris* spp. has been reported in the digestive systems of iguanas. Parasite infestations often do not identified because of signs which are unspecific. These clinical signs may include chronic weight loss, diarrhea, anorexia and regurgitation. It is necessary to collect fresh fecal samples to make a correct diagnosis (Jacobson 1983, Greiner and Schumacher 1997, O'Rourke and Schumacher 2002, Heard et al. 2002, Stahl 2003). Usually, the antemortem diagnosis of parasitism is done by fecal examination or parasitism may be diagnosed in dead animals at necropsy. Fecal examination includes fecal direct evaluation and fecal flotation by observing parasite eggs.

In the present case report, parasitism was diagnosed by fecal examination and evacuation of the parasites. The animal is alive. A 9 month-old green iguana (*Igua-*



Figures: 1 Green iguana (*Iguana iguana*) 2. *Oxyuris* spp. eggs 3; *Mesocestoides* sp. eggs.

na iguana) weighing 95 g was presented for physical examination (Figure 1). The physical findings included poor nutritional condition. The *Oxyuris* spp. and *Mesocestoides* spp. eggs (Figure 2, 3) were diagnosed by fecal flotation and the animal was treated with ivermectin (0.2 mg/kg, PO) plus praziquantel (10 mg/kg, SC). Three days later after first treatment, the animal evacuated many cestode segments in the feces. They were collected and crushed into the small pieces. Two weeks later after first treatment, the fecal examination was done and nematode eggs showed again. The iguana was treated once again with ivermectin (0.2 mg/kg, PO) plus praziquantel (10 mg/kg, SC) for the elimination of these parasites, and the last fecal examination was negative. After treatments, owner of the iguana said that iguana had a normal appetite and well appearance.

In this case report, *Oxyuridae* and cestode eggs were determined (Figure 2 and 3). It was reported that lizards are hosts of some cestode and nematodes including *Mesocestoides* spp., *Oxyurus* spp., *Capillaria* spp., *Strongyloides* spp., *Entomelas* spp., *Oswaldocruzia* spp. (Mc Allister 1988, Ben Slimane and Durette-Desset 1996, Wilson 2003). In this case report, ivermectin and praziquantel were used to treatment. Other anthelmintics such as fenbendazole (50-100 mg/kg, PO, repeated two weeks later), albendazole (50-75 mg/kg, PO) and oxfendazole (68 mg/kg, PO, repeated two weeks later) were also reported for treatment of helminthes infection of green iguana (Stahl 2003, Yazar 2010).

In conclusion, routine parasitic examination and treatment of exotic animals should be done like other pet animals. In addition, more information should be given to owner of exotic animal about parasitic diseases.

► References

- Ben Slimane B, Durette-Desset MC, 1996. Four new species of *Oswaldocruzia* (Nematoda: Trichostrongylina, Molineoidea) parasitizing amphibians and lizards from Ecuador. Mem Inst Oswaldo Cruz, 91, 317-328.
- Girling S, 2003. Common reptile and amphibian diseases, in; Veterinary Nursing of Exotic Pets, Blackwell Publishing, UK.
- Greiner E, Schumacher J, 1997. Parasitology of reptiles, in; The Biology, Husbandry, and Health Care of Reptiles, Ed; Ackerman L, TFH Publications, Neptune City, New Jersey, USA, pp: 689-702.
- Heard D, Fleming G, Lock B, Jacobson E, 2002. Lizards, in; Exotic Pets, Eds; Meredith A, Redrobe S, British Small Animal Veterinary Association, England, pp: 223-240.
- Jacobson ER, 1983. Parasitic diseases of reptiles, in; Current Veterinary Therapy: Small Animal Practice, Ed, Kirk RW, Saunders, Philadelphia, USA, pp: 601.
- Jacobson ER, 1986. Parasitic diseases of reptiles, in; Zoo and Wild Animal Medicine, Ed; Fowler ME, 2nd edition, WB Saunders, Philadelphia, USA, pp:162-181.
- Judah V, Nuttal K, 2008. Reptiles, in; Exotic Animal Care and Management, Unit IV, Chapter 15, Thomson Delmar Learning, Clifton Park, NY, USA.
- Maden M, 2010. Egzotik hayvanlar ve veteriner hekimlik, in; Egzotik Hayvan Hastalıkları ve Beslenmesi, Ed; Maden M, Erman Ofset, Konya.
- Mc Allister, 1988. *Mesocestoides* sp. Tetrathyridia (Cestodea: Cyclophyllidea) in the Iguanid Lizards, *Cophosaurus texanus texanus* and *Sceloporus olivaceous*, from Texas. J Wildlife Dis, 24, 160-163.
- O'Rourke DP, Schumacher J, 2002. Biology and Diseases of Reptiles, in; Laboratory Animal Medicine, Chapter 18, 2nd edition, Copyright, Elsevier Science, USA, pp: 827-861.
- Stahl SJ, 2003. Pet Lizard Conditions and Syndromes. Semin Avian Exotic Pet Med, 12, 3, 62-182.
- Wilson B, 2003. The Lizard, in; Exotic Animal Medicine for the Veterinary Technician, Eds: Ballard B, Cheek R, Iowa State Press, A Blackwell Publishing Company, USA.
- Yazar E. 2010. Sürüngenler, in; Egzotik Hayvan Hastalıkları ve Beslenmesi, Ed: Maden M, Erman Ofset, Konya.

Ben Slimane B, Durette-Desset MC, 1996. Four new species of *Oswaldocruzia* (Nematoda: Trichostrongylina, Molineoidea) parasitizing amphibians and lizards from Ec-

