

A REPORT ON THE INCIDENCE OF *OPHIDASCARIS* SP. IN A RETICULATED PYTHON

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Abstract: The incidence of the ascaridoid nematode *Ophidascaris* sp. in a captive reticulated python in Chennai is reported. Large numbers of brownish white stout worms were found in clumps in the stomach along with calcified material and necrotic debris. Female worms were larger than males. The cuticle had fine transverse striations. Female worms had a branched uterus filled with numerous eggs. The cranial end of the worms had prominent interlabia along with square shaped lips. The oesophagus was elongated and cylindrical with slightly dilated posterior part without oesophageal bulb. The tail end of the male worms was found to be blunt with two spicules.

Keywords: *Ophidascaris* sp., reticulated python, stomach

INTRODUCTION

Captive snakes are susceptible to a variety of endoparasites. Among these, Ascaridoid nematodes of the Genus *Ophidascaris* are very commonly found in the oesophagus, stomach, large and small intestines of snakes and lizards throughout the world (Ash and Beaver, 1963). These infections can range from very mild form to a very severe form causing clinical disease in snakes sometimes leading to mortality in heavy infections. Factors such as immune status, physiological stress, poor management, food availability and age influence the occurrence of ophidascariosis in snakes (Ambrose et al 1999). These worms feed on the ingesta in the gut of the definitive host and remain attached to the gut wall and sometimes they can be found to cluster together with their heads buried in the centre of an elevated nodule or looped through the stomach wall with the extremities extending into the lumen (Ash and Beaver, 1963). When present in large numbers these worms can cause traumatic injury to the stomach and intestine leading to progressive loss of health status leading to mortality of snakes.

CASE REPORT

Necropsy was performed in a reticulated python (*Python reticulatus*) at the Department of Veterinary Pathology, Madras Veterinary College. Case history revealed that the python was off feed for a week and had progressive loss of body condition since then. Upon incision

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of the stomach, numerous round worms were found in clumps. A total of 70 worms were recovered from the snake. On gross examination, the worms were found to be long, large and stout. They were brownish white in colour and were found embedded along with white calcified materials and necrotic debris in the stomach (Fig 1). The female worms were larger than the males. Female worms had an average length of 10-12 cm whereas males measured 8-10 cm. Male worms were also slender compared to female worms. The cuticle showed very fine transverse striations. All worms were found in the stomach. The worms were transported in normal saline to Department of Veterinary Parasitology for identification.

Processing and examination of the worms:

The worms were fixed in 10% formalin, washed in water then dehydrated in ascending grades of alcohol (70%, 90% and 100%) and then cleared in carbolic acid and mounted in DPX. The worms were then examined under a light microscope for studying the morphological characteristics. The cranial end of the worms had prominent interlabia along with square shaped lips (Fig 2). The oesophagus was elongated and cylindrical with slightly dilated in the posterior part without an oesophageal bulb. The tail end of male worms was found to be blunt with two spicules (Fig 3). The female worms had a branched uterus filled with eggs. The eggs were subglobular in shape and thick shelled with compact yolk (Fig 4).

DISCUSSION

Ascarids are commonly found in the gastrointestinal tract of snakes and are commonly seen embedded in inflammatory nodules near the gastric pylorus or in the distal oesophagus, stomach and small intestine. They also migrate in the gastrointestinal walls. Usually, non-specific clinical signs are only observed and they are mostly identified at necropsy. In the present case also the worms were found embedded along with calcified materials and necrotic debris in the stomach. Taylor *et al* (2007) observed that gastrointestinal tract disturbances in pythons are associated with large masses of worms which lead to gastric ulcerations, obstruction, poor appetite, weight loss, vomiting or regurgitation and diarrhoea. Ambrose *et al* (1999) reported that severe complications may lead to large granulomatous masses or ulcers in the gastrointestinal tract leading to intestinal perforations. It is also believed that these worms when present in large numbers may reduce resistance to infections in reptiles. Cooper and Nares (1971) and Telford (1971) reported that these parasites may sometimes cause gastric occlusion and digestive disturbances. Ganjali *et al* (2015) reported the occurrence of *Ophidascaris filaria* from and Indian Python in Sistan, Iran found dead in a zoo. In the present case, the snake would have acquired the infection through contamination

in the environment or through preying on infected rodents or other animals fed to them. Observations revealed necrotic and calcified regions in the stomach where the worms were found embedded. The presence of a large number of the worms would have caused a reduction in the immune status of the snake leading to debility and death.

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Fig. 1: *Ophidascaris* worms embedded along with calcified materials and necrotic debris in the stomach



Fig. 2: Cranial end of worms showing lips and interlabia



Fig 3: Caudal end of male worm showing spicules

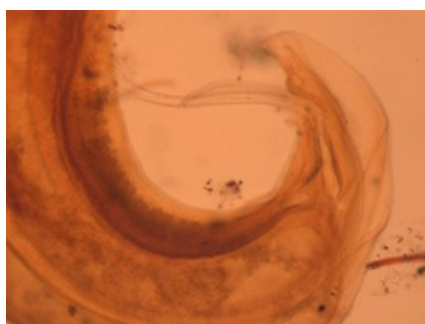


Fig 4: Eggs of *Ophidascaris sp*

