

Endoscopic Evaluation of Spirocercosis in Four Dogs

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Abstract

Spirocerca lupi induces fibroproliferative oesophageal nodules, which may progress to obstruction or aneurysm. Four dogs were presented with anorexia, chronic vomiting, pyrexia, persistent vocalisation, and poor response to symptomatic therapy. Laboratory evaluation revealed mild leucocytosis with unremarkable serum biochemistry. Endoscopic examination identified nodular lesions in the distal thoracic oesophagus, with live worms visualised in two cases. Barium contrast radiography demonstrated intraluminal mass effects. Treatment with doramectin administered at 14 day intervals for three cycles, combined with antiemetics and pantoprazole, resulted in progressive clinical improvement and regression of nodules on follow up imaging.

Keywords: Canine spirocercosis, Endoscopy, Oesophageal nodules, Doramectin

Spirocercosis in dogs can result in a spectrum of clinical manifestations, including esophageal nodules, regurgitation, vomiting, chronic coughing, and in severe cases, life-threatening complications such as aortic

aneurysm or rupture (Traversa, 2012; Mazaki-Tovi *et al.*, 2025). This article describes endoscopic diagnosis of Spirocercosis in our dogs.

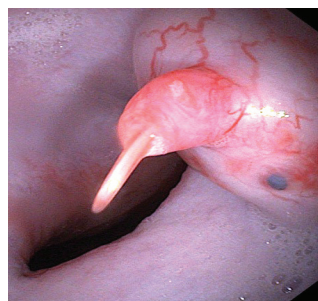
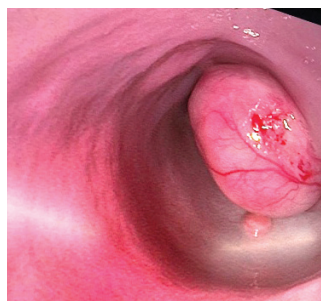


Fig. 1 and 2: Endoscopic images of oesophageal nodules- *Spirocerca lupi*.

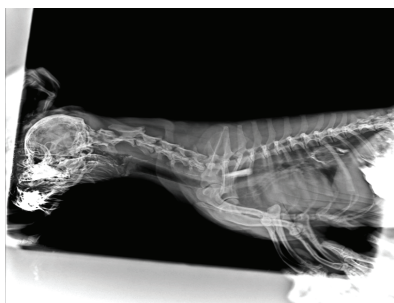


Fig. 3: Barium radiograph showing stasis of contrast

Four dogs were presented to Paw Universe Veterinary Hospital, Ahmedabad, Gujarat with a several-day history of marked anorexia, chronic vomiting, intermittent pyrexia, and persistent vocalisation.

Despite symptomatic management, none of the dogs exhibited clinical improvement, prompting further diagnostic investigation. Mild leucocytosis without any change in the serum biochemical parameters was observed. Endoscopic examination of the oesophagus revealed multiple space-occupying nodular lesions in

the thoracic oesophagus (Fig 1). Live *Spirocerca lupi* worms were visualised in two dogs (Fig. 2). To further characterise the lesions, endoscopic biopsy samples were obtained from the nodules. Barium contrast radiography demonstrated a well-defined intraluminal mass effect in the distal oesophagus (Fig. 3).

Doramectin was administered at 14-day intervals for a total of three treatment cycles. Supportive medical management included ondansetron and pantoprazole. Follow-up endoscopic and radiographic evaluations revealed a marked decrease in the size and prominence of the oesophageal nodules. Therapy with doramectin at 14-day intervals resulted in clinical improvement and reduction in nodule size, reinforcing macrocyclic lactones as the cornerstone of treatment (Lavy *et al.*, 2018).

Reference

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