

## **Spirocercosis-Associated Pyothorax in a Dog: A Case Report**

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*Spirocerca lupi* is a nematode predominantly found in tropical and subtropical countries. In dogs, the L<sub>3</sub> larvae of *S. lupi*, after migrating along the aortic wall cross over to the oesophageal wall, mature as adults, and promote nodule formation in the oesophagus. The common clinical signs are related to the presence of oesophageal nodules and include regurgitation, vomiting and weight loss, with other non-specific signs such as pyrexia.

Pyothorax, an uncommon clinical condition of dogs, is characterised by a septic pleural effusion. The objective of this case report is to report atypical complication of spirocercosis resulting in pyothorax.

A two-year old, male Doberman pinscher was presented to the Veterinary Teaching Hospital with a complaint of inappetance for one week and profuse vomiting of bile for four days. Haematemesis was observed after presentation. The dog had been vaccinated and dewormed regularly and a past history of similar signs was not reported. The general clinical examination revealed poor peripheral perfusion, mucosal pallor, splenomegaly, malena, popliteal lymphadenopathy and a purulent penile discharge. Within a few hours of hospitalisation, the dog became obtunded with progressive dehydration, hyperthermia (106° F), tachycardia and tachypnoea indicative of cardiovascular compromise secondary to septic shock and hypovolaemia. Systemic antibiotic therapy with Augmentin® (20 mg/kg) and metronidazole (20 mg/kg) failed to control the sepsis. As the dog showed severe abdominal pain pethidine (2mg/kg) was administered intramuscularly as symptomatic treatment. Although the emergency and critical care was given with cardio-pulmonary resuscitation the dog succumbed to the condition.

Necropsy revealed three oesophageal granulomas (4x5 cm, 3x2 cm, 5x7 cm) at the caudal end of the thoracic oesophagus. The middle of the most caudal granuloma (5x7 cm) contained a 1-2cm long perforation that exposed the oesophageal lumen to the thoracic cavity. All three granulomas contained *Spirocerca lupi* adult worms. In addition, there was 1200 ml of pus (inflammatory cells and bacteria in the impression smear) in the thoracic cavity and several scars were present in the caudal thoracic aorta parallel to the oesophageal granulomas.

This was the first report of a rupture of the oesophagus due to *Spirocerca* leading to pyothorax was reported in Sri Lanka. In conclusion, *S. lupi* infection should be included in the differential diagnosis of canine pyothorax in endemic countries.