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What's Your Radiographic Diagnosis?

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History

A six-year-old spayed female Siamese cat was referred to the Iowa State University Veterinary Teaching Hospital for evaluation of paroxysmal coughing. The duration of the coughing was two months and was unresponsive to antibiotic therapy. Auscultation of the thorax revealed moist crackling sounds ventrally and wheezing sounds dorsally. Clinical laboratory data were within normal limits. Thoracic radiography was done (Figures 1 and 2).

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Radiographic Signs

Thoracic radiographs showed patchy areas of increased density in the right lungfield. Two poorly-marginated areas were present in the right caudal lobe and a less well defined region of interstitial/alveolar density was seen ventrally in the right middle and caudal lobes. The remainder of the lung and thoracic structures were normal.

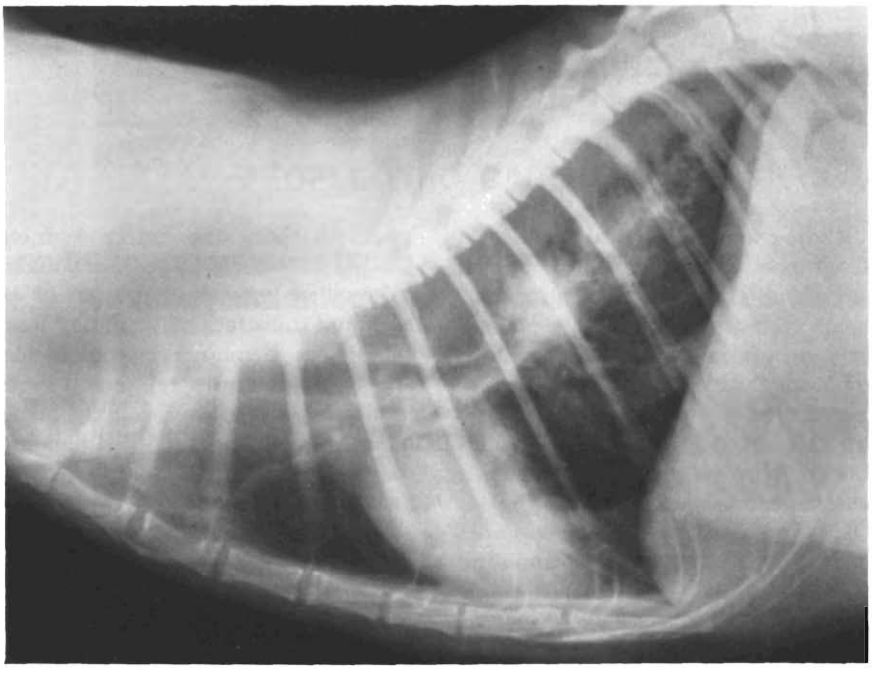

Fig. 1. Lateral view of the thorax

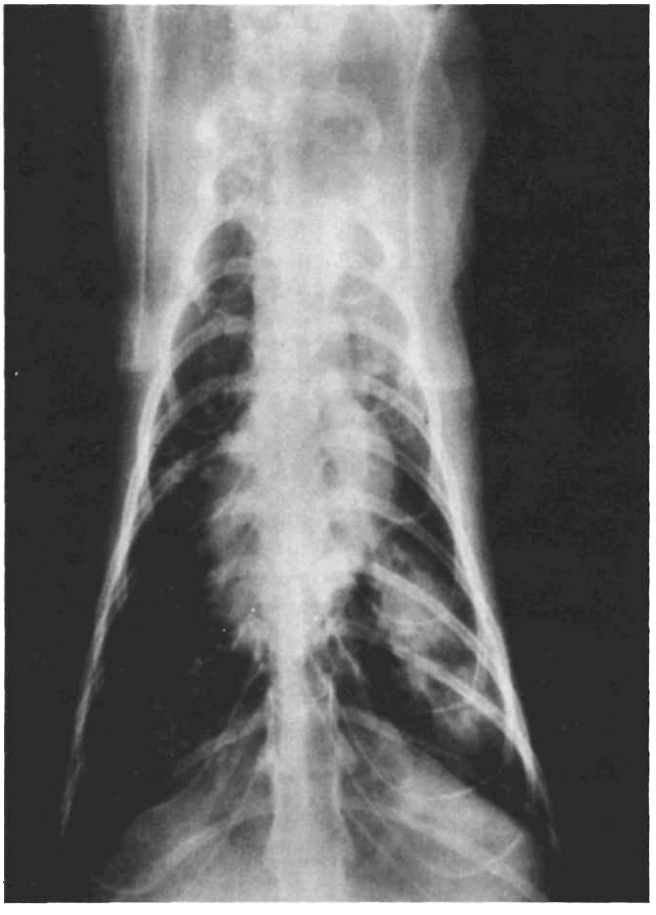

Fig. 2. Dorsoventral view of the thorax

Radiographic Diagnosis

The radiographic signs suggested differential diagnoses of granulomatous parasitic pneumonia, pulmonary abscess, metastatic neoplasia or primary neoplasia. Fecal examination yielded numerous fluke eggs identified as *Paragonimus kellicotti.*

Right middle and right caudal lobectomies were performed. Histopathologic diagnosis was granulomatous pneumonia due to *Paragonimus kellicotti.* The cat was treated with fenbendazole (30 mg/kg/day) for 17 days at which time the cough had subsided and the fecal exam was negative.

Parasitic lung disease due to *Paragonimus kellicotti* is found in dogs and cats most frequently in the Southeastern and Midwestern regions of the United States.[1] Infection is due to ingestion of the second intermediate host, the crayfish, which harbors the infective metacercaria. Diagnosis is made by fecal examination using zinc sulfate or sodium nitrate or by finding eggs in a transtracheal washing.[2] Radiographically, dogs demonstrate multiloculated cysts and cats demonstrate interstitial nodules. In both species, the caudal lung lobes are most often involved. Spontaneous pneumothorax is common in both dog and cat.[1] No approved drug therapy is available. Bithional, albendazole and fenbendazole have been recommended.[2]

References

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2. Barsanti, JA and Prestwood, AK, Parasitic diseases of the respiratory tract. In *Current Veterinary Therapy VIII Small Animal Practice,* Ed. Kirk, RW, p. 241–246.