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Short Communication

ENDOSCOPIC DIAGNOSIS OF OESOPHAGEAL CHONDROSARCOMA IN A SPITZ DOG

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SUMMARY

A seven year old male Spitz dog was presented with a history of anorexia, dysphagia, regurgitation immediately after feeding, and chronic weight loss for the past month. On plain radiography, a mildly dilated oesophagus with a poorly defined radio-dense mass (71.4 × 44.2 mm) with irregular edges at the caudal thoracic region was appreciated. On oesophagoscopy examination, multiple globoid non-pedunculated growths obstructing ¾th of the lumen of the caudal oesophagus were observed. It was finally confirmed as oesophageal chondrosarcoma by histopathological examination and imaging technique and hence, presented here.

Keywords: Dog, Oesophagus tumor, Chondrosarcoma

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A seven-year-old male Spitz dog was presented to the Small Animal Out-Patient Medicine unit of the Veterinary Clinical Complex, Veterinary College and Research Institute, Namakkal with a history of anorexia, dysphagia, regurgitation immediately after feeding and chronic weight loss for the past one month. On clinical examination, the animal was dull, depressed and emaciated and the conjunctival mucous membrane was congested. All other vital signs were well within the normal range. On physical examination of the animal, no abnormalities were detected on abdominal palpation and mild respiratory distress was noticed on auscultation of the thoracic cavity.

Haematological values showed neutrophilic leukocytosis and an increase in calcium level was observedin serum biochemistry. Amildly dilated oesophagus with a poorly defined radio-dense mass(71.4 × 44.2 mm) with irregularedges at the caudal thoracic region was appreciated on plain radiography (Fig. 1a) andcontrast radiography showed barium stasis in the cranial oesophagus (Fig. 1b). Radiographic findings were suggestive of mega oesophagus secondary to oesophageal obstruction.

Under general anesthesia oesophagoscopy was performed, which revealed multiple globoidnon-pedunculated growths obstructing ¾th of the lumen of the caudal oesophagus and an accumulation of food materials was found around the mass (Fig. 2). During the actual procedure it was unable to advance endoscopy beyond the mass. An endoscopy-guided biopsy sample was collected and histopathology of the biopsy sample revealed the presence of pleomorphic chondrocytes and nests of atypical chondroblasts within the cartilage matrix (Fig. 3a and b). Based on the endoscopic guided biopsy and histopathological findings a confirmatory diagnosis was made as oesophageal chondrosarcoma.

In oesophageal sarcoma cases, the most common clinical signs are vomiting or regurgitation, lethargy, depression, pyrexia, anorexia and weight loss. Hematological findings included neutrophilia and microcytic hypochromic anemia. Endoscopy is a reliable tool in the diagnosis of oesophageal tumours (Ranen *et al.*, 2004a), however, endoscopic biopsies of oesophageal masses may not differentiate between tumours and granulomas. The treatment of choice is the surgical removal of the oesophageal tumour.

Wijekoon *et al.* (2018) reported canine *Spirocerca lupi* induced oesophageal chondrosarcoma by histopathology from the samples obtained at autopsy. The present report identified multiple globoid non-pedunculated growths in the caudal oesophagus by endoscopy and its further histopathological confirmationas chondrosarcoma. The biopsy sample revealed the absence of a worm or egg of *S. lupi*. In a report from Kenya, 20.38 % of cases of *Spirocerca* had sarcomas, with a higher percentage of osteosarcomas followed by fibrosarcomas in dogs (Wandera, 1976). However, another literature stated that the association of chondrosarcoma with *S. lupi* is not frequently reported (Lindsey *et al.*, 2010).

The prognosis for dogs with oesophageal foreign bodies is guarded to good, however, one-third of the animals develop complications (Guilford and Strombeck, 1996). The treatment of choice is the surgical removal of the oesophageal tumour, but no conclusions have been made regarding the effectivenessof adjunctive chemotherapy (Ranen *et al.*, 2004b). In this case, curative surgery was advised but the owner was not willing for surgery. Palliative

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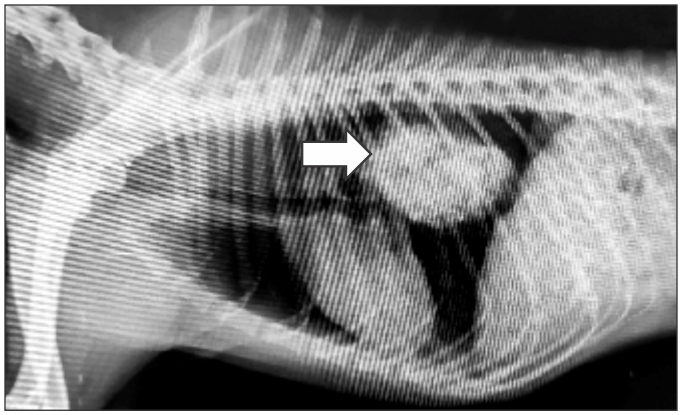

Fig. 1a. Plain radiography shows mild dilated, poorly defined radio-dense mass (71.4 × 44.2 mm) with irregular edges at the caudal thoracic region (Arrow)

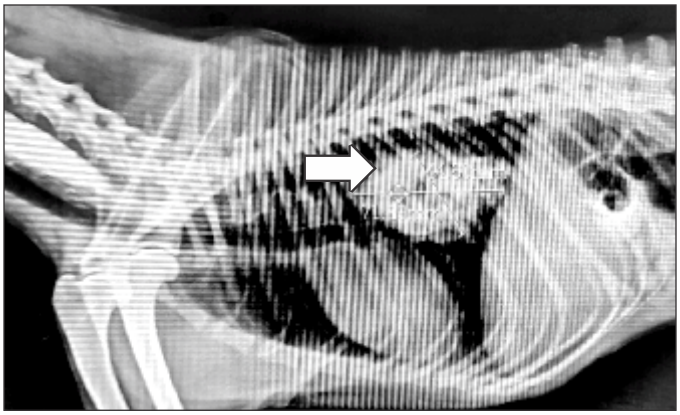

Fig. 1b. Contrast radiography revealed barium stasis in the cranial oesophagus (Arrow)

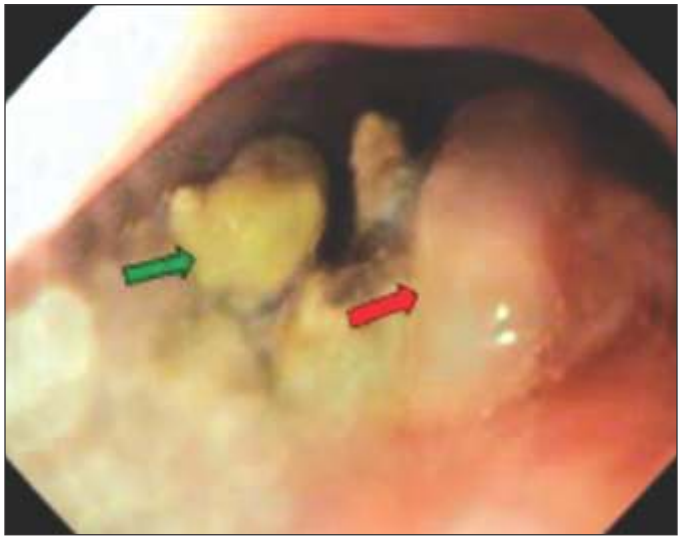

Fig. 2. Endoscopy of oesophagus showed multiple globoidnon-pedunculated growths obstructing ¾th of the lumen of the caudal oesophagus

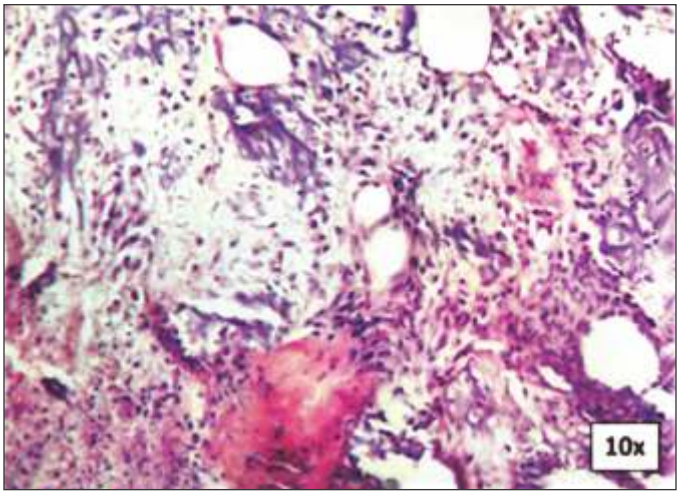

Fig. 3a. Histopathology of the biopsy sample showed pleomorphic chondrocytes in cartilage matrix (H&E ×100)

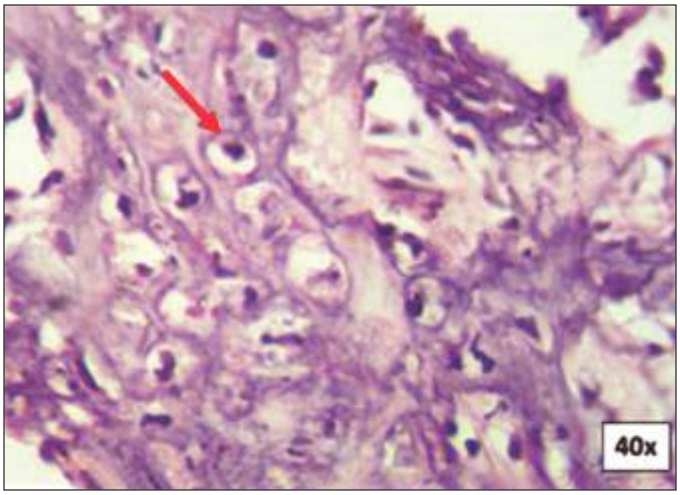

Fig. 3b. Histopathology of the biopsy sample showed a nest of atypical chondroblasts (arrow) within the cartilage matrix (H&E × 400)

care with a liquid diet and fluid therapy was followed. However, the animal succumbed after two weeks due to inanition.

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