

EMBRYONAL RHABDOMYOSARCOMA OF THE OESOPHAGUS IN A DOG

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Introduction: A 15-month-old great Dane presented with anorexia, lethargy and weight loss and hyperthermia for about 2 months. Recently the dog developed generalized stiffness and diffusely swollen hindlimbs. Radiographs showed lesions corresponding to hypertrophic osteopathy. Thoracic radiographs revealed soft tissue opacity in the caudal mediastinum, mainly on the left side. Using contrast radiography, the caudal part of the thoracic oesophagus showed dorsal displacement. Sternotomy revealed an oesophageal mass in the caudal mediastinum and small biopsy samples were taken.

Materials and Methods: FFPE tissue biopsy samples were stained with HE and IHC was performed.

Results: Microscopical examination showed a non-encapsulated, cellular tumour containing two cell populations. One consisted of sheets of polygonal cells with indistinct borders and eosinophilic cytoplasm with oval central nuclei, stippled chromatin and a single basophilic nucleolus. Intermingled and arranged in streams were spindle-shaped cells with eosinophilic cytoplasm and occasional cross-striations and the same nuclear features. There were 2 to 5 mitoses/HPF and moderate anisocytosis and anisokaryosis. Both populations contained bi- and trinucleated cells, some with nuclear rowing. IHC was positive for vimentin, desmin and sarcomeric actin. Based on these results, the diagnosis of embryonal rhabdomyosarcoma was made.

Conclusions: Rhabdomyosarcomas are rare in dogs and arise from striated muscle. Embryonal rhabdomyosarcomas occur in 23% of canine cases and are most commonly reported in the head and neck region. To the best of our knowledge, this is the first description of an oesophageal embryonal rhabdomyosarcoma in a dog.

METASTATIC LIPOSARCOMA IN A DOG

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Introduction: Liposarcoma (LS) is uncommon in dogs, but is the most frequent malignant mesenchymal tumour in man. The biological behaviour of LS in man is partially dependent on the subtype; dedifferentiated LSs have a poor prognosis.

Materials and Methods: A 10-year-old mixed-breed dog was examined for a subcutaneous mass in the gluteal region. Fine-needle aspiration cytology was performed. Radiography and ultrasonography did not reveal any distant involvement. The mass was removed surgically and sent for histology and immunohistochemistry (IHC). Ten months later, ultrasound and CT follow-up revealed two other lesions involving the right kidney and the gastric wall. Both lesions were removed surgically and examined. No adjuvant chemotherapy was performed.

Results: Cytology revealed undifferentiated spindle cell neoplasia. Histopathology of the gluteal and kidney masses revealed a neoplastic proliferation of spindle-shaped to round pleomorphic cells characterized by vacuolated cytoplasm and a high mitotic index. Frequent multinucleated cells, rare lipoblasts, adipose differentiation and S100 immunoreactivity were features consistent with a poorly differentiated LS. The gastric mass was a leiomyoma. The dog is still alive 14 months after the first surgery.

Conclusions: In man, retroperitoneal sarcomas are rare and display a vast array of histological subtypes, among which LS is the most common. No cases of retroperitoneal LS are reported in veterinary medicine. Diagnosis of poorly differentiated LSs is not straightforward and IHC is mandatory for the correct classification. Few data about the biological behaviour and prognosis of LS in dogs are available. This report adds further information about LS biology in dogs.

REACTIVE ANGIOMATOSIS IN A DOG

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Introduction: Angiomas are a vascular endothelial proliferative disorder causing dysplasia and/or hyperplasia of blood vessels and includes a wide range of vascular lesions such as malformations, reactive vascular proliferations and neoplasms.

Materials and Methods: A 1-year-old mixed-breed neutered male dog presented with severe recurrent non-responsive external otitis with ulceration and a red–purple haemorrhagic plaque on the left pinna. A total ear canal ablation was performed. Two months later, the dog showed similar ipsilateral head and tongue lesions. All of the lesions were examined histologically.

Results: Histology of all surgical samples showed a subepithelial proliferation of variably sized vascular channels lined by well-differentiated to slightly plump endothelial cells. Several vessels were enclosed and occasional clusters of anastomosing sinusoidal spaces filled by blood cells were present. The interstitium was infiltrated by neutrophils, macrophages, few plasma cells and mast cells. Severe neutrophilic ulceration was also present.

Conclusions: Based on the presence of vascular proliferation, limited nuclear atypia, inflammatory infiltration and clinical history, a diagnosis of reactive angiomas (RA) was made. In man the common characteristic of RA is the tendency to develop either a vasculopathic process or an inflammatory vascular reaction that generates a localized hypoxic stimulus causing the neovascularization. Human RA is often idiopathic, but can be associated with *Bartonella* spp. (bacillary angiomas), especially in immunocompromised patients. In this case, considering the history of otitis externa, a triggering bacterial aetiology could be hypothesized. Prospective investigation of further cases could provide valuable information about aetiology and prognosis of RA in the dog.

ATYPICAL VASCULAR TUMOUR IN A FEMALE NYMPHICUS HOLLANDICUS

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Introduction: Vascular tumours are infrequently described in exotic birds. Histopathological diagnosis includes well- or less-differentiated pleomorphic, endothelial cells and immunohistochemistry results are variable.

Materials and Methods: An 8-year-old female *Nymphicus hollandicus* was presented at the Faculty of Veterinary Medicine after severe bleeding from a left cheek nodule. The bird died shortly afterwards and was submitted for imaging and pathological investigations, which included radiology, gross, histological cytopathological and immunohistochemical examinations.

Results: Radiological examination revealed compact tissue deriving from the left cheek with no bone infiltration. On gross examination, the bird was in poor body condition and was anaemic. The facial nodule was red–black, soft, haemorrhagic and necrotic. Internal organs had several other red–black nodules involving the left myocardium, lung, ventriculus and ovary. Cytology revealed blood and inflammatory cells. Histopathology of the facial nodule showed large blood-filled areas associated with inflammatory cells, necrosis, fibrin and dermal aggregates of polygonal and fusiform neoplastic cells. The lung revealed groups of pleomorphic, malignant cells, either compact or with a tendency to form blood vessels. Immunohistochemistry for vimentin and von Willebrand factor was inconclusive in this case. In addition, a subcutaneous, yellow mass was observed in the coelomic region and histopathological examination revealed a lipoma.

Conclusions: This is the first case report of an atypical malignant vascular tumour with multicentric or metastatic evolution and concurrent evolution of a lipoma in the female *Nymphicus hollandicus* in Romania.