ANAL SAC GLAND CARCINOMA IN A CAT

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INTRODUCTION

Perianal tumors are common in dogs but rare in cats. This report describes an anal sac gland carcinoma in a cat.

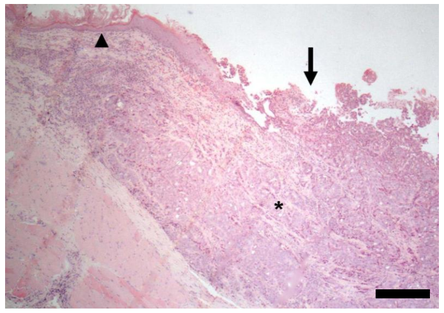
SIGNALMENT AND HISTORY

A perianal mass in a fifteen year old, spayed female domestic shorthaired cat with a painful subcutaneous swelling in the left ventrolateral perianal region was surgically excised and submitted for light microscopic evaluation. Preoperative hematologic and serum biochemical parameters were within normal limits.

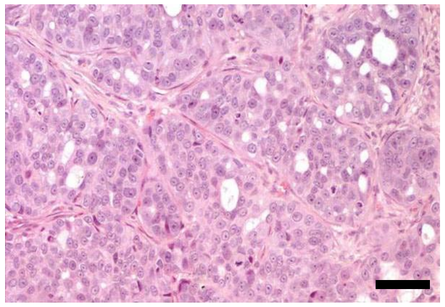
MICROSCOPIC FEATURES

Grossly the mass was 1.8 x 1.1 x 1.0cm, firm, irregular, pale tan, and contained viscous fluid material on cut section.

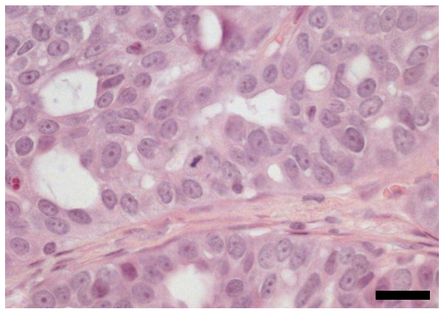
Histologically this was a poorly demarcated, unencapsulated, multilobulated neoplasm that was associated with the anal sac and invaded surrounding perirectal skeletal muscle. Lobules were composed of sheets and acinar arrangements of cuboidal neoplastic epithelial cells with scant to moderate eosinophilic to amphophilic cytoplasm and a round or oval nucleus with coarse chromatin. Mitotic figures were two per x40 objective field. Acinar lumina sometimes contained eosinophilic proteinaceous material. Desmoplasia was also present, as were foci of necrosis with infiltrates of neutrophils, lymphocytes and plasma cells. Neoplastic cells extended to the margins of the specimen, but invasion of lymphatic or blood vessels was not seen.



A neoplastic proliferation (asterisk) in close association with the anal sac epithelium (arrowhead) which is partially ulcerated (arrow). (H&E) (Bar = 500µm)



Lobules of neoplastic epithelial cells separated by fibrous stroma. (H&E) (Bar = 120µm)



Neoplastic acini composed of cells with indiscrete borders, moderate amounts of eosinophilic cytoplasm and round to oval nuclei with a prominent nucleolus. (H&E) (Bar = 40µm)

DISCUSSION

In dogs, anal sac gland carcinoma is the most common malignant perianal neoplasm. It arises from the apocrine glands surrounding the fundus of the anal sac, is usually unilateral and frequently invades local tissues, with metastasis an early feature of the disease that is often present at the time of diagnosis.

In this case, association of the tumor with the anal sac and its microscopic features were consistent with a diagnosis of anal sac gland carcinoma. Its clinical presentation as a perianal swelling was similar to how some cases present in dogs, and its histologic morphology and invasion of surrounding tissue was also comparable to the canine lesion. Hypercalcemia, although documented in some cases in dogs, was not a feature in this cat. Since this lesion was considered incompletely excised, recurrence was considered a likely possibility. Additional follow-up clinical information on this cat was unfortunately unavailable as she was not presented for further examination.

To the author's knowledge, this is only the second documented report of anal sac gland carcinoma in a cat.

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