Multiple neoplasms within a single adrenal gland of a dog

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OBJECTIVES

To present a canine patient with multiple neoplasms identified within a single adrenal gland and to discuss the diagnostics and management of the condition.

METHODS

A rare canine patient with multiple neoplasms present within a single adrenal gland is described.

RESULTS

An 11-year-old neutered female Labrador retriever was presented with a history of tachypnoea, polyuria and polydipsia. Diagnostics included haematology, biochemistry, a low-dose dexamethasone suppression test, plasma ACTH, urine metanephrine and normetanephrine,

serial Doppler blood pressure measurements and computed tomography (CT).

CT identified a large bi-lobed abdominal mass in the location of the left adrenal gland. The results of endocrine testing were consistent with adrenal-dependant hyperadrenocorticism, although the presence of intermittent hypertension and borderline high metanephrines were suggestive of a concurrent phaeochromocytoma.

As a phaeochromocytoma could not be ruled out, preparatory steps were taken preoperatively including ensuring appropriate drugs were available, pre-emptive blood typing and arterial blood pressure monitoring. A unilateral adrenalectomy was performed. Histopathological examination identified a benign myelolipoma and two distinct malignancies within the adrenal gland; a phaeochromocytoma and an adrenocortical adenocarcinoma. Postoperative recovery was uneventful and resolution of all clinical signs was observed within 4 weeks. No signs of recurrence or metastatic disease were noted 5 months postoperatively. The patient was euthanised 12 months postoperatively due to metastatic disease.

STATEMENT (CONCLUSIONS)

Multiple unilateral adrenal neoplasms are rare. This case demonstrates the importance of considering the presence of multiple functional tumours in a single patient and performing detailed endocrine testing to optimise pre/perioperative stabilisation and outcome.