

Adrenocortical Adenoma in a Maltese Dog

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Introduction: Adrenocortical adenoma is functional, producing cortical steroid hormones, which is usually unilateral and arise within the cortex. They may secrete enough adrenocortical hormones to cause hyperadrenocorticism, a frequent problem in dogs.

Material and Methods: A 15-year-old, spayed female maltese dog was presented with a polydipsia, polyuria, polyphagia, abdominal distention, alopecia and hyperpigmentation. Laboratory test (complete blood count, serum biochemistry), diagnostic imaging test (radiography, ultrasonography), screening test (ACTH stimulation test, Low-dose dexamethasone suppression test), High-dose dexamethasone suppression test (HDDST), computed tomography (CT), Cytology, and histopathologic examination were performed.

Results: The complete blood count values within the reference range, but the serum biochemistry revealed elevated level of alkaline phosphatase, albumin and globulin. Mild hepatomegaly was seen on radiography of abdomen. The diameter of left adrenal gland measured 2.4cm on ultrasonography. Screening test revealed hyperadrenocorticism. High-doses dexamethasone suppression test revealed pituitary dependent hyperadrenocorticism (PDH). On CT images, isodense mass with contrast enhancing, was seen in left adrenal gland. Adrenal mass were surgically removed and evaluated. Cytologic and histopathologic examination revealed adrenocortical adenoma.

Clinical relevance: Diagnostic imaging, cytologic and histological examination revealed adrenocortical adenoma. However HDDST revealed PDH. In this case, we can think of Concomitant adrenal tumor (AT) and PDH or cortisol level suppression on the HDDST in AT. Clinical sign improvement and normal ACTH stimulation test result suggest cortisol level suppression on the HDDST in AT. This is very rare case and only two cases are reported.

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