

Synthetic Progesterone-Induced Acromegaly in Two Bitches

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Signalment: An 8-year-old female Shih Tzu dog weighing 5.86 kg and a 13-year-old female Miniature Poodle dog weighing 4.0 kg were presented with an inspiratory stridor, polyuria and polydipsia. They had a history of medroxyprogesterone acetate (MPA) administration. Physical examination in the Shih Tzu dog clearly revealed thickening of the skin, redundant skin folds, and enlargement of the tongue.

Results: Results of diagnostic examinations were suggestive of cystic endometrial hyperplasia (CEH) in both cases. Endocrine tests were also shown that the Shih Tzu dog had diabetes mellitus concurrent with typical pituitary-dependent hyperadrenocorticism (HAC) and the Miniature Poodle dog had atypical HAC. Of note, two bitches possessed an increased serum insulin-like growth factor-1 concentration and the high levels of growth hormone (GH) expression in the mammary tissues, and these results strongly indicated the onset of acromegaly in association with MPA administration.

Clinical relevance: The cases reported here describe the development of acromegaly in two bitches receiving synthetic progesterone. Moreover, the information provided here suggests that excess GH may interrupt the results of adrenal function tests in dogs with HAC.

Key words: acromegaly, dog, growth hormone, hyperadrenocorticism, progesterone

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