Oral presentations

Incidental canine pituitary changes – are they as common as in humans?

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OBJECTIVES

In humans, lesions of the pituitary gland occur in around 10–24% of patients undergoing cranial MRI for reasons unconnected to pituitary disease. These 'incidentalomas' have yet to be described in dogs.

Our objective was to determine the incidence of pituitary abnormalities in dogs undergoing cranial MRI without clinical suspicion of pituitary disease.

METHODS

A retrospective study was conducted using cranial MRIs from 700 dogs. Indications for performing MRIs in these

dogs were a mixture of clinical signs, both consistent with and inconsistent with pituitary disease. Images were reviewed by a board-certified radiologist and an imaging intern under direct supervision. The medical records were reviewed by a board-certified internist. Inclusion of a non-contrast axial T1-weighted sequence within the study was mandatory.

RESULTS

Of the 700 dogs, 154 pituitary abnormalities were found in 133 dogs. Cystic lesions occurred in 35 dogs, 25 had subjectively partially empty sellae/borderline enlarged pituitaries, 19 had a "V"/heart-shaped hypophysis, 15 had neurohypophyseal displacement, 15 had atypical contrast uptake, 12 had a mass in the sellar region, 2 an abnormality of unclear origin, and 1 had hypophysitis. Hypophyseal abnormalities noted in 30 dogs were considered due to technical issues with the MRI protocol. Of the 133 dogs with abnormalities, 121 dogs had no reported signs of pituitary disease.

STATEMENT (CONCLUSIONS)

To our knowledge this is the first large-scale study describing the 'incidental' pituitary abnormalities on MRI in dogs and has revealed a similar incidence as that reported in humans.

Ultrasound of the canine cervical oesophagus

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OBJECTIVES

To determine the sonographic appearance and measurements of the cervical oesophagus in normal and symptomatic dogs.

METHODS

Seven canine cadavers, ten healthy staff owned dogs and eleven client owned dogs with vomiting and regurgitation were examined.

Transcutaneous ultrasonography of the cervical oesophagus was performed using a left lateral approach. Wall thickness measurements were performed in two planes and wall layers identified. In the cadavers, the oesophagus was also resected, scanned in water and

submitted for histology. The histological and ultrasonographic appearances were compared.

In live dogs, correlation of body weight, age and breed with mean wall thickness was calculated using the Pearson correlation coefficient ($P < 0.05$). Regression analysis between mean oesophageal wall thickness and body weight was also performed.

RESULTS

Transcutaneous ultrasonography allowed visualisation of the entire cervical oesophagus with either five or seven wall layers identified. These corresponded with the histological findings. The ultrasonographic wall thickness measurements were consistently lower than values in the histologic examinations. There was a significant association between body weight and ultrasonographic mean wall thickness ($P < 0.05$). There was no significant association between the mean wall thickness with the age or breed of the dogs. No significant differences in ultrasound appearance between symptomatic and asymptomatic dogs were identified.

STATEMENT (CONCLUSIONS)

To the authors knowledge this is the first study comparing the ultrasonographic and histological characteristics of the cervical oesophagus in normal and symptomatic dogs. Further studies are required to evaluate its use in clinical cases with oesophageal disease.