Received: 13 October 2021 | Accepted: 13 October 2021

DOI: 10.1111/jvim.16289

Journal of Veterinary Internal Medicine Open Access

ACVIM American College of Veterinary Internal Medicine

ABSTRACT

Research Communications of the 31st ECVIM-CA Online Congress

1-4 September 2021

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LIST OF ORAL RESEARCH COMMUNICATIONS

ESCG – European Society of Comparative Gastroenterology

Friday 3 September

14.25-14.40	ESCG-O-1	Bernard	Comparative analysis of the distribution and severity of the lesions within the digestive tract in feline low-grade intestinal T-cell lymphoma or lymphoplasmacytic enteritis
14.40-14.55	ESCG-O-2	Da Riz	Short-term survival and associated factors after surgical intestinal biopsies in cats with chronic enteropathy
14.55-15.10	ESCG-O-3	Wu	Identification of bacteria in pancreas, liver, and bile of apparently healthy cats using next generation 16S rRNA sequencing and standard bacteriological culture
15.10-15.25	ESCG-O-4	Collier	Investigating fecal microbial transplant in dogs with inflammatory bowel disease: A pilot study
15.25-15.40	ESCG-O-5	Toresson	Clinical effects of fecal microbiota transplantation in dogs with chronic enteropathy
15.40-15.55	ESCG-O-6	Kuijlaars	Faecal bile acid profiles in dogs with chronic enteropathies versus healthy controls
15.55-16.10	ESCG-O-7	Sung	Fecal fatty acid, cholesterol, and bile acid concentrations in cats with chronic enteropathy
16.30-16.45	ESCG-O-8	Walker	Metabolomic serum profiling in dogs with chronic enteropathy
16.45-17.00	ESCG-O-9	Csukovich	Taking the next step: Modelling infectious diseases in canine intestinal organoids
17.00-17.15	ESCG-O-10	Thomson	Retrospective analysis of the association between hepatic pathology and DGGR lipase in canines with histologically normal pancreas
17.15-17.30	ESCG-O-11	Méric	Colorectal polypoid masses in dogs: Multicentre retrospective study of 53 cases
17.30-17.45	ESCG-O-12	Dupont	Suspected acute hemorrhagic diarrhea syndrome in out-patients: A preliminary study of disease severity, treatment, outcome and client satisfaction
17.45-18.00	ESCG-O-13	Tamura	Low-dose oral cobalamin supplementation ameliorated in serum cobalamin concentrations in dogs with chronic enteropathy when compared with small cell gastrointestinal lymphoma
18.00-18.15	ESCG-O-14	Muradas	Assessment of visceral pain in dogs with chronic enteropathy and its' effect on behaviour and owner-observed quality of life

ESVE-P-9 - European Society of Veterinary Endocrinology

Evaluation of the ACTH stimulation test using a low-dose of a depot formulation in healthy dogs and in dogs with naturally occurring Cushing's syndrome

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The adrenocorticotropic hormone (ACTH) stimulation test has been widely used to confirm the diagnosis of Cushing's syndrome (CS) and to monitor trilostane and mitotane treatment in dogs with CS. Previous studies have shown that the use of a depot formulation of tetracosactide may represent an alternative to the non-adsorbed synthetic ACTH products in dogs. Nonetheless, its sensitivity to diagnose CS requires further evaluation.

The aims of this study were to propose reference intervals for cortisol values 1 hour after administration of a low-dose of depot ACTH in healthy dogs and to evaluate the sensitivity of this test to detect CS. The sensitivity was also evaluated among different types of CS based on an ultrasonographic classification.

Forty-one healthy dogs (20 males, 21 females) with a median age of 9 years were prospectively included. Additionally, 91 dogs with CS (31 males, 60 females) with a median age of 11 years were retrospectively included. Dogs with CS were ultrasonographically classified as follows: 45 (49.4%) dogs with symmetrical adrenomegaly consistent with pituitary-dependent hypercortisolism (PDH), 8 (8.8%) dogs with unilateral adrenomegaly and atrophy of the contralateral adrenal gland or unilateral or bilateral adrenomegaly with malignancy features consistent with adrenal-dependent hypercortisolism (ADH), 34 (37.4%) dogs with equivocal adrenal asymmetry (EAA) and 4 (4.4%) dogs with normal adrenal thickness. A low-dose (5 μg/kg) of depot ACTH was intramuscularly administered to all dogs and cortisol was measured before and 1 hour post-ACTH.

In healthy dogs, lower and upper limit of the 95% reference interval for post-ACTH cortisol concentration and their confidence intervals, were 4.4 (2.7-5.8) μg/dl and 18.4 (16.5-20.0) μg/dl, respectively. Post-ACTH cortisol concentration was above the reference interval in 81 out of 91 dogs (89.0%) with CS. Forty two of the 45 (93.3%) dogs with PDH, 5 of the 8 (62.5%) of dogs with ADH and 30 of the 34 (88.2%) of dogs with EAA had an elevated post-ACTH cortisol concentration consistent with CS. Therefore, using a low-dose of a depot ACTH formulation, the 1-hour post-ACTH cortisol concentration had good sensitivity to detect CS in dogs with PDH and EAA but low sensitivity to detect CS in dogs with ADH. In dogs with suspected CS and with ultrasound findings consistent with ADH, a normal ACTH stimulation test does not rule out CS and, in such cases, performing a different diagnostic test (ie, low-dose dexamethasone suppression test) is recommended.

Disclosures

Financial support for the ACTH stimulation tests performed in healthy dogs was given by the BIO307 PAIDI Research Group, Junta de Andalucía.

ESVE-P-10 - European Society of Veterinary Endocrinology

Myotonia associated with naturally occurring canine hypercortisolism: 30 cases (1984-2020)

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Myotonia, a disorder characterized by delayed muscle relaxation after voluntary contraction or percussion, has been rarely associated with canine hypercortisolism (HC). This retrospective multicenter study aimed to describe the clinical findings and outcome of myotonia cases associated with HC.

Cases (n=30) of naturally occurring canine HC and myotonia were retrospectively (1984-2020) included in the study. Twenty-two females (17 neutered) and 8 males (4 neutered) dogs were included. The most represented types were mixed breed (11/30), Poodle (7/30), and Dachshund (4/30). The median (range) body weight was 7.75 (3.6-21) Kg. All dogs had pituitary-dependent HC. The mean (±standard deviation) age at the time of HC and myotonia diagnosis was 10.7 years (±2.8) and 11.4 years (±2.8), respectively. In 10 dogs, HC was diagnosed first; in 19 cases, myotonia was diagnosed first, and in one dog, they were diagnosed simultaneously. Myotonic signs (stiffness, stilted gait, and hyperextension) developed first on the hindlimb in 18 dogs, first on the forelimbs in 5 dogs, and simultaneously in all the limbs in 7 dogs. Pain was not reported in any case by the referring veterinarian or the owner. Electromyography, performed in 11 dogs, showed the presence of myotonic discharges. Muscle/nerve biopsies, performed in 4 dogs, showed variation in muscle fiber size, moderate fiber fibrosis, and hypomyelination or demyelination. Twenty-two dogs were treated with trilostane, 5 with mitotane, 2 with trilostane and then mitotane, and one with

melatonin. In 27/30 dogs HC signs improved after treatment. Myotonia treatment consisted of combined therapies including benzodiazepines (6/30), physiotherapy (4/30), cyclobenzaprine (3/30), mexiletine (2/30), dantrolene (2/30), nonsteroidal anti-inflammatory drugs (2/30), botulinum toxin (1/30), gabapentin (1/30), and methocarbamol (1/30). No dogs showed complete resolution of myotonic signs. However, a mild improvement was noted in one dog treated with diazepam, one dog with mexiletine, and one dog with physiotherapy and diazepam. Six dogs were lost to follow up, 10 dogs are still alive at the time of writing, and 14 dogs died. Euthanasia was performed in 5/14 dogs because of myotonic signs, in one because of HC signs, and in 8 dogs the cause of death was unknown. The median survival time from the diagnosis of myotonia was 583 (125-4402) days.

In conclusion, in most dogs, myotonic signs persisted despite the resolution of HC signs. However, our results suggest that the survival time of dogs with HC-associated myotonia does not differ from that previously reported for canine HC without myotonia.

Disclosures

Federico Fracassi: Financial support: Dechra, MSD Speaking & consultancies: Â Boehringer Ingelheim, Dechra, MSD, Royal Canin, Hill's, Nestlé Purina, La Vallonea. Â Stefania Golinelli: Financial support: PhD scholarship funded by Dechra Speaking & consultancies: Â Dechra Audrey K. Cook: Speaking & consultancies: Dechra, Zomedica.

ESVE-P-11 - European Society of Veterinary Endocrinology

Evaluation of serum electrophoresis in dogs with pituitary-dependent hypercortisolism

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Changes in serum electrophoresis (SE) of dogs with naturally occurring hypercortisolism (HC) have been rarely described. This retrospective study aimed to compare SE of dogs with HC at diagnosis and healthy dogs (HDs).

Agarose gel electrophoresis of HDs and dogs with pituitary-dependent hypercortisolism (PDH), diagnosed at a referral veterinary hospital, were retrospectively analyzed. PDH dogs and HDs were defined based on clinical findings, CBC, serum biochemistry, urinalysis, and endocrine testing (PDH dogs only). SE fractions absolute values (AVs) were reported as mean± standard deviation (SD) or median (range) and compared between the two groups using unpaired T-Test or Mann-Whitney U Test, based on data distribution. Receiver operating characteristic (ROC) curve analysis with the area under the ROC curve (AUC) calculation was performed. $P < 0.05$ was considered significant.

Forty-nine PDH dogs and 34 HDs were included in the study. In PDH dogs the following SE fractions AVs resulted significantly lower compared to the HDs: albumin (3.18 ± 0.46 vs 3.42 ± 0.39 g/dL; P=0.0144), alfa-1 globulins (0.3 ± 0.07 vs. 0.33 ± 0.05 g/dL; P=0.0120), beta-2 globulins (0.66 ± 0.13 vs. 0.76 g/dL ± 0.18, P=0.0076) and gamma globulins (0.2 ± 0.12 vs. 0.62 ± 0.18 g/dL; P<0.0001). In PDH dogs alfa-2 globulins AVs were significantly higher in comparison to HDs (1.47 ± 0.26 vs. 0.92 ± 0.18 g/dL; P<0.0001). Most PDH dogs had the following SE fractions AVs within the laboratory reference interval (RI): albumin (33/49), alfa-1 globulins, (41/49), beta-2 globulins (43/49). Most PDH dogs had gamma globulins below the RI (34/49) and all PDH dogs had alfa-2 globulins above the RI (49/49). The gamma:alfa-2 globulin (gamma:alfa-2) ratio was able to differentiate PDH dogs from HDs. In particular, PDH dogs had significantly lower gamma:alfa-2 ratio in comparison to HDs (0.02 ± 0.01 vs. 0.05 ± 0.01; P<0.0001). ROC curve analysis for gamma:alfa-2 showed AUC of 0.97 and identified a cutoff of 0.025 as the best value to discriminate between PDH dogs and HDs, with a sensitivity of 97% and a specificity of 86%.

In conclusion, at SE, increased alfa-2 globulins, and decreased gamma-globulins and gamma:alfa-2ratio seemed to characterize dogs with PDH. The gamma:alfa-2 ratio showed promising results in differentiating PDH dogs from HDs with a high sensitivity and good specificity. However, the absence of a control group of dogs with other diseases (i.e., inflammatory or neoplastic diseases) represents a limitation of the present study.

Disclosures

Federico Fracassi: Financial support: Dechra, MSD Speaking & consultancies: Â Boehringer Ingelheim, Dechra, MSD, Royal Canin, Hill's, Nestlé Purina, La Vallonea. Â Stefania Golinelli: Financial support: Ph. D. scholarship funded by Dechra Speaking & consultancies: Â Dechra.

ESVE-P-12 - European Society of Veterinary Endocrinology

Treatment and monitoring of naturally-occurring hypercortisolism by primary care veterinarians: A Western European survey

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