Occurrence of Hypertrophic Cardiomyopathy in a Large Cohort of British Shorthair Cats
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Index of Abstracts

ORAL PRESENTATIONS – Thursday, June 10

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3:15 pm 171 Fiona Tam Safety and Palatability of Polyethylene Glycol 3350 as an Oral Laxative in Cats

3:30 pm 172 Lucie Goodwin Evaluation of Hypersusceptibility Using Thromboelastography (TEG) in Dogs With Protein Losing Enteropathy

3:45 pm 173 Dottie Laflamme Comparison of Two Canned Diets Designed for the Management of Feline Diarrhea

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4:30 pm 174 Susanne Kilipinen Determination of the Dosage Regimen of Tylosin in the Treatment of Canine Tylosin-Responsive Diarrhea

4:45 pm 175 Aarti Kathrani CD11c Positive Dendritic Cells are Significantly Decreased in the Duodenum of Dogs With Inflammatory Bowel Disease

5:00 pm 176 Aarti Kathrani Overdominant Single Nucleotide Polymorphisms in the Nucleotide Oligomerisation Domain Two (NOD2) Gene are Significantly Associated With Canine Inflammatory Bowel Disease

5:15 pm 177 Jan Suchodolski Relationship of Mucosal Gene Expression to Microbiota Composition in Dogs With Inflammatory Bowel Disease

5:30 pm 178 Nashwa Waly Measurement of IL-12 (p40, p35), IL-23p19 and IFN-gamma; mRNA in Duodenal Biopsies of Cats With Inflammatory Bowel Disease and Healthy Controls using Quantitative Reverse Transcription Polymerase Chain Reaction (qRT-PCR)

5:45 pm 179 Melanie Craven Mucosal Cytokine Profiling Reveals IL-6 Up-Regulation in Feline IBD and Alimentary Lymphoma

6:00 pm 180 Jevan Christie Fecal Sensitivity as a Tool to Differentiate Between Non-Neoplastic and Neoplastic Spirocerca Lupi Nodules Using a Modified Centrifugal Flotation Method

POSTER PRESENTATIONS

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Attended by Authors Eligible for ACVIM Resident Research Awards: Thursday, June 10, 9:50 am – 10:30 am; Friday, June 11, 9:50 am – 10:30 am

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#  Presenting Author  Abstract Title

SMALL ANIMAL – CARDIOLOGY

181 Maria Helena Larsson Time-Domain Signal-Averaged Electrocardiogram in Healthy German Shepherd and Boxer Dogs

182 Maria Helena Larsson Time Domain High-Resolution Electrocardiography in Boxer Dogs With Arrhythmogenic Right Ventricular Cardiomyopathy and Dilated Cardiomyopathy

183 Aparecido Camacho Heart Rate Variability in Boxer Dogs With Arrhythmogenic Right Ventricular Cardiomyopathy

184 Denise Schwartz Six Minute Walk Test Standardization for Dachshund, Poodle and Labrador Retriever Dogs

185 Aparecido Camacho Effects of Treadmill Training Over Autonomic and Hemodynamic Functions in Healthy Dogs

186 Masashi Mizuno Effects of Running on the Renin-Angiotensin-Aldosterone System in Dog

187 Sara Granström Occurrence of Hypertrophic Cardiomyopathy in a Large Cohort of British Shorthair Cats

188 Aparecido Camacho Clinical Characterization of Hypertensive Hypertrophic Cardiomyopathy in Dogs With Chronic Kidney Disease (CKD)

189 Aparecido Camacho Heart Rate Variability in Dogs With Mitral Endocardiosis or Natural Morbid Obesity

190 Carley Saelinger Comet-Tail Artificial in Normal Dogs and Dogs With Cardiogenic Pulmonary Edema

191 Takashi Ebisawa Clinical Usefulness of Measuring Plasma Atrial Natriuretic Peptide Concentrations for Assessing the Severity in Dogs With Degenerative Mitral Valve Disease

192 Pierre Menaut Circulating Natriuretic Peptides Concentrations in Hyperthyroid Cats

193 Caryn Reynolds Weekly Variability of Plasma NT-proBNP Measurements in Cats With and Without Heart Disease

194 Aliya Magee Use of Abciximab to Determine Platelet Reactivity in Healthy Cats

195 Carolina Carlos Sampedrano Effects of High Versus Normal Salt Diets on Cardiovascular Variables in Healthy Aged Cats: A 6-Month Study

196 Takeshi Mizuno Relationship Between Prognosis and Immune Response in Dogs After Mitral Annuloplasty

197 Shigeki Yamano Endogenous Erthropoietin Levels and Iron Utilization in Dogs With Degenerative Mitral Disease

198 Yoko Fujii Prevalence of Right to Left Shunt Due to Patent Foramen Ovale Concurrent with Pulmonary Stenosis in Dogs

199 Meg Sleeper Dobutamine Stress Testing in Portuguese Water Dogs with Juvenile Dilated Cardiomyopathy

200 Sabine Riesen Pharmacokinetics of Oral Itubradine in Healthy Cats

201 Michael Katz Thiocyanate Anesthesia Reveals Predominant Role for the Central Mechanism of Respiratory Sinus Arrhythmia in the Dog

202 Lauren Callan In-Hospital Electrocardiograph Versus 24-Hour Holter Monitor for Assessing Heart Rate in Dogs With Atrial Fibrillation

203 Ashley Saunders Bradycardybrhythmias Requiring Pacemaker Implantation in Chagas Positive Dogs

SMALL ANIMAL – ONCOLOGY

204 Kensuke Nakamura Contrast-Enhanced Ultrasonography With Sonazoid® for Characterization of Focal Splenic Lesions

205 Silvia Lucas Evaluation of Oxidant/Antioxidant Total Status and Erthrocyte Antioxidant Defense in Cats With Lymphoma

206 Elizabeth Lechner Oxidative Stress in Dogs With Lymphoma Before and After Administration of Doxorubicin: A Pilot Study
hydrochloride was administered to four dogs and then heart rate and blood pressure were measured every 5 minutes for 30 minutes. Plasma renin activity, angiotensin-converting enzyme (ACE), angiotensin II (Ang II), aldosterone, adrenaline, noradrenaline and urinary aldosterone were measured in the dogs before and after running on a treadmill at 7 km/h for 10 minutes. Benazepril hydrochloride significantly (P < 0.05) decreased ACE (0.9 ± 1.0 U/L) and aldosterone (21.1 ± 16.1 pg/ml) compared with the placebo (P < 1.5 U/L, 42.9 ± 29.8 pg/ml). Plasma renin activity, Ang II, aldosterone and adrenaline levels increased during exercise. Heart rate and blood pressure significantly (P < 0.05) increased with both placebo and benazepril hydrochloride during exercise and heart rate and blood pressure did not significantly differ between the two groups. These results suggest that the increase in heart rate and blood pressure during exercise is related to activation of the RAAS and the RAAS might modulate circulatory function and the RAAS during exercise.

ABSTRACT #185
EFFECTS OF TREADMILL TRAINING OVER AUTONOMIC AND HEMODYNAMIC FUNCTIONS IN HEALTHY DOGS.
JPE Pascon, D Paulino-Junior, E Zacché, FN Gava, EMG Ortiz, AA Camacho. College of Agricultural and Veterinary Sciences, São Paulo State University, Campus of Jabaíctuba, Brazil.

Regular physical activity has been widely used in human cardiovascular therapy, promoting better autonomic control, heart function, life quality and decreasing sudden death risks. In dogs, however, there is not a standardized guideline to be used. This research has the goals of evaluating the effects of standardized treadmill training over the autonomic and hemodynamic functions of healthy dogs.

Six dogs (4 Beagles; 2 mixed breed), with mean weight of 13.1 Kg, were enrolled in this study. Twenty-four hour time domain heart rate variability (HRV), and echocardiography were analyzed before and after four weeks, five days a week, 40 minutes a day training. The intensity of training was individually determined by a maximal heart rate (MHR), observed in a maximal progressive effort test. Gradually, the intensity of training was increased in 50% of MHR, in the first week, to 60%, 70% and 80% of MHR in the second, third and fourth weeks, respectively. The paired t test was used to compare data before and after training. The improvement in functional capacity of the dogs was attested by a better performance on the physical test after training, achieving higher levels of intensity (9.0 km/h to 11.1 km/h; p = 0.0155) and decreasing the area under the curve of lactate (31.2 ± 26.0; p < 0.0001). Increase in parasympathetic tone on HRV was verified by SDANN (15.5 ± 35.2 ms to 231.7 ± 46.7 ms; p = 0.0059), rMSSD (115.3 ± 50.4 ms to 181 ± 51.9 ms; p = 0.0118), amplitude of heart rate (188.5 ± 21.9 bpm to 200.3 ± 17.5 bpm; p = 0.0033), and by a higher percentage of respiratory sinus arrhythmia on a maximal progressive effort test (> 50% until 2 km/h before training and 8 km/h after training). On the hemodynamic aspect, training lead to increase diastolic interventricular septum thickness (0.78 ± 0.12 cm to 0.91 ± 0.16 cm; p = 0.0294), decrease left atrial diameter (2.37 ± 0.22 cm to 2.15 ± 0.19 cm; p = 0.0369), left ventricular end-diastolic (4.47 ± 0.80 to 3.82 ± 0.62; p = 0.0068), and end-systolic (2.27 ± 0.39 to 1.88 ± 0.40; p = 0.0104) wall stress indexes, suggesting preload and afterload reduction. Improvement of diastolic function was confirmed by mitral E/A waves (1.42 ± 0.19 to 1.83 ± 0.46; p = 0.0467). No differences (p > 0.05) were detected on systolic function (EF%), SF%, left and right ejection time, left pre-ejection time, ejection in- dex, and mean velocity of circumferential fibers shortening, left ventricular end-systolic and end-diastolic volume indexes, and on Tei index of myocardial performance. As observed in a human being, training results in better autonomic and hemodynamic control in healthy dogs. In a near future we expect that this therapeutic modality could be helpful for cardiovascular improvement in the canine species.

ABSTRACT #186
EFFECTS OF RUNNING ON THE RENIN-ANGIOTENSIN-ALDOSTERONE SYSTEM IN DOGS.
M Mizuno, M Uechi, Y Inoue, S Kurihara, Y Kamiyama. Nihon University, Kanagawa, Japan.

Exercise and stress are important factors in the development of congestive heart failure. The present study evaluates the influence of exercise upon circulatory function and the renin-angiotensin-aldosterone system (RAAS) in healthy dogs. A placebo or benazepril