

midline administration (T1) and 3 hours after atipamezole injection (T2).

Of 13 dogs screened, 8 were definitively enrolled. At T1 a significant decrease in the right parasternal regurgitant jet area (RP-ARJ/LAA), peak velocity of mitral regurgitation and shortening fraction was observed along with an increase in LVIDs ($P < 0.05$). Left parasternal ARJ/LAA decreased without reaching statistical significance but showing a high correlation with RP-ARJ/LAA ($r = 0.7$). Interestingly, LA/Ao changed only mildly and never reached a value >1.6 . The other echocardiographic variables did not show a particular trend. Systolic blood pressure showed values at the upper physiologic limit at T0, lower values than T0 at T1, and an increase above the initial value at T2 but without significance. Thoracic radiographs were evocative of heart enlargement without pulmonary venous congestion or pulmonary oedema both at T0 and T2. Respiratory rate did not change between T0 and T2. The degree of sedation was optimal during the clinical procedure in all cases.

Sedation with 30 $\mu\text{g}/\text{kg}$ medetomidine is safe in dogs suffering from MMVD in stage B2 (LA/Ao <1.6). The decrease observed in peak velocity and color-Doppler appearance of mitral regurgitation at T1 could be due to a reduction of both myocardial contractility and systolic blood pressure, by a lowering of sympathetic activity via baroreceptors stimulation.

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TRANSARTERIAL PATENT DUCTUS ARTERIOSUS OCCLUSION USING DIFFERENT DEVICES IN 25 DOGS. R.M. Ventura¹, J.S. Orvalho². ¹Faculdade de Medicina Veterinária, Universidade de Lisboa, Lisboa, Portugal, ²University of California Veterinary Medical Center – San Diego, San Diego, CA, USA

In the last decade, several transvascular occlusion device techniques have been developed and transvascular occlusion has largely replaced surgical ligation of patent ductus arteriosus (PDA) in dogs.

In this retrospective study were included a total of 25 client-owned dogs, undergoing transarterial occlusion of PDA with MReye® Flipper Detachable Embolization coil ($n = 7$), Amplatz® Canine Duct Occluder (ACDO; $n = 16$) and Amplatz® Vascular Plug ($n = 2$). Device size selection was based on PDA dimensions assessed by transesophageal echocardiography (TEE) in 10 cases and transthoracic echocardiography (TTE) in 15 cases. Angiography was performed during the procedure to assess the success of the occlusion, and it confirmed complete occlusion in 20 dogs and a trivial residual flow in 5 dogs. The following day, transthoracic color-Doppler echocardiography revealed that complete ductal closure was achieved in all dogs. The procedure was hemodynamically successful, as evidenced, by a reduction in indexed left ventricular internal diameter in diastole (LVIDd; $P < 0.01$), fractional shortening (FS; $P < 0.01$) and left atrial to aortic ratio (LA: Ao; $P < 0.001$) within 24 hours after procedure. Four months after surgery, indexed LVIDd was significantly reduced ($P = 0.03$) and LA:Ao remained constant. Secondary complications included pulmonary arterial embolization of an ACDO and a late rotation of an Amplatz® Vascular Plug resulting in an increased flow through the PDA. The dog with the rotated device required subsequent surgical ligation of the PDA.

At this time, 23 dogs were reported to be alive and the other 2 dogs were lost to follow up. Only one dog remained on congestive heart failure therapy after the PDA occlusion.

We can conclude that PDA occlusion using an ACDO for dogs with more than 3 kg and a transarterial coil embolization for dogs with <3 kg had a high rate of immediate complete occlusion. PDA occlusion using those devices proved to be a safe and effective therapeutic method for PDA in dogs.

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COMPARISON OF TWO ECHOCARDIOGRAPHIC VIEWS FOR EVALUATING THE RIGHT PULMONARY ARTERY DISTENSIBILITY INDEX IN DOGS. T. Vezzosi¹, F. Marchesotti², R. Tognetti¹, L. Venco³, O. Domenech². ¹University of Pisa, San piero a grado, Pisa, Italy, ²Istituto Veterinario di Novara, Granozzo con monticello (no), Italy, ³Veterinary Hospital Città di Pavia, Pavia (pv), Italy

Echocardiographic evaluation of the right pulmonary artery distensibility index (RPAD index) was recently described as a valuable method for early detection and severity evaluation of pulmonary arterial hypertension in dogs. RPAD index is calculated as the percentage change in diameter of the right pulmonary artery (RPA) between systole and diastole, obtained by M-mode echocardiography from the right parasternal long axis view. The aim of this study was to compare the RPAD index obtained by two different echocardiographic views in dogs. The study design was a prospective, multicenter, observational study. Forty-five client-owned dogs from different breeds were included: 31 dogs with heart disease and 14 healthy dogs. Two different right parasternal views, long axis (RPLA) and short axis (RPSA), were used to measure the RPAD index. From the RPLA view (method 1) and RPSA view (method 2) a short axis and a long axis image were respectively optimized for the right pulmonary artery. The RPAD index was calculated by M-mode as the percentage change in diameter of the right pulmonary artery: [(systolic diameter – diastolic diameter)/systolic diameter]*100. Measurements were done off-line as an average of 5 consecutive cardiac cycles by a single investigator blinded to the dogs' diagnosis. A Pearson and a Bland-Altman test were used to assess correlation and agreement between the 2 methods, respectively. Intra- and inter-observer measurement variability was quantified by average coefficient of variation (CV). Level of significance was set at $P < 0.05$. M-mode evaluation of the RPAD index was satisfactorily obtained by both methods in all dogs. Pearson test showed a strong positive linear correlation between the values of RPAD index obtained from both methods ($r^2 = 0.9346$, $P < 0.0001$). Bland-Altman test showed a good agreement between the 2 methods in estimating RPAD index (bias = 0.51%, SD = 2.96%, 95% limits of agreement = -5.30, 6.33%). The mean difference between the two methods was 0.51% (95% confidence interval = -0.35; 1.35). Intra- and inter-observer measurement variability was clinically acceptable (CV $<10\%$). The study showed a good agreement between short axis and long axis M-mode evaluation of RPA. Both methods can be used interchangeably to evaluate RPAD index. Further studies are needed to evaluate the RPAD index in a larger population of healthy dogs and the diagnostic and prognostic role of this echocardiographic parameter in dogs with different types of pulmonary hypertension.

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PREVALENCE AND CLINICAL FEATURES OF NATURALLY OCCURRING HYPOADRENOCORTICISM IN GREAT PYRENEES IN A REFERRED POPULATION IN MONTREAL, CANADA: 11 CASES (2005–2014). M. Decôme, M.C. Blais. Centre Hospitalier Universitaire Vétérinaire, University of Montreal, Saint-Hyacinthe, QC, Canada

Naturally occurring hypoadrenocorticism (Addison's disease) is an uncommon illness. Its prevalence in the general canine population is estimated between 0.06 and 0.28%. Certain breeds appear to have an increased risk for developing hypoadrenocorticism, including Bearded Collie, Standard Poodle, Portuguese water dog and Nova Scotia Duck Tolling Retriever, with reported prevalence of 9.4, 8.6, 1.5 and 1.4%, respectively.

The objective is to evaluate the prevalence and clinical features of naturally occurring hypoadrenocorticism in Great Pyrenees (GP) presented at the Centre Hospitalier Universitaire Vétérinaire (CHUV) of the University of Montreal.

This retrospective study (March 2005 to October 2014) includes 11 client-owned Great Pyrenees diagnosed with hypoadrenocorticism. The medical records of dogs with a diagnosis of naturally occurring hypoadrenocorticism were reviewed, with an emphasis on Great Pyrenees' record. The prevalence of hypoad-