197) and without annular hypoplasia (69 mmHg range 17–210) had a significant reduction in gradient 24 hours post PBV. It remained significant at 30 days (with annular hypoplasia: 77 mmHg, range 30–116; without annular hypoplasia: 61 mmHg, range 22–193; $P < 0.0001$ for both). When comparing to baseline, considering valve type, there was no significant difference in percent reduction in gradient for type A versus type B valves at both the 24-hour (A: 58%, range 17–88; B: 48%, range 12–82; $P = 0.1014$) and 30-day (A: 43%, range 23–89; B: 58%, range 33–81; $P = 0.0544$) recheck evaluation time points. Additionally, there was no significant difference in gradient reduction when looking only at whether or not there was annular hypoplasia at 24 hours (yes: 57%, range 24–78; no: 49%, range 17–89; $P = 0.2673$) and 30 days (yes: 48%, range 25–81; no: 47%, range 22–89; $P = 0.4695$). In conclusion, classification of dogs with PS according to valve type and annulus morphology did not help predict the 30-day response to PBV.

**Disclosures:** No disclosures to report.

## ESVC-P-11

## PREVALENCE OF HYPERTROPHIC CARDIOMYOPATHY (HCM) IN FELINE POPULATION EXAMINED BY THE OSSERVATORIO ITALIANO HCM FELINA.

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Hypertrophic Cardiomyopathy (HCM) is the most common feline inherited cardiac disease and it is a major cause of morbidity and mortality. The Osservatorio Italiano HCM Felina was formed in 2008 by a network of clinicians, geneticists and breeders, to monitor and study HCM in Italian cats.

Since April 2008, 1308 adult cats, belonging to various breeds, including Maine coon, Siberian, Norwegian Forest Cats, Ragdoll, Sphynx, British SH, Birmans and others have been prospectively enrolled. Recheck evaluations were performed in 287 cats. Each cat underwent a clinical examination, echocardiography, and blood collection for genetic testing (when appropriate) and storage in the Italian Feline Bio-bank.

The disease status was defined by echocardiography according to established guidelines (left ventricular diastolic wall thickness <5.5 mm = HCM negative, =5.5 but <6 mm = HCM equivocal; =6 mm = HCM positive).

The prevalence of HCM in the population was 6% (74 cats); equivocal diagnoses were conferred on 4% (57 cats). These prevalences did not differ between breeds. The prevalence of HCM in the Italian feline population was lower compared to those reported by other investigators.

Evaluation of data from the entire population demonstrated that left ventricular end-diastolic wall thicknesses and aortic diameter showed a weak positive correlation with body weight ($P < 0.0001$, $r^2<0.12$ for all variables), suggesting that weight-dependent limits on wall thickness should be considered in cats as is currently practiced in dogs.

The lower prevalence of HCM in Italian cat breeds compared with those examined elsewhere might be explained by different criteria for determining presence or absence of disease, differences in ages at which the subjects were examined, or a selection bias by breeders in presenting cats they consider 'normal'.

**Disclosures:** No disclosures to report.

## ESVC-P-12

## EPIDEMIOLOGICAL CHARACTERIZATION OF A PORTUGUESE POPULATION OF DOGS WITH CANINE CHRONIC MITRAL VALVE DISEASE: 542 CASES.

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Chronic mitral valve disease is by far the most common cardiovascular disease in dogs. The disease is caused by myxomatous degeneration of the mitral valve leaflets and, in approximately 30% of cases, it's accompanied by degeneration of the tricuspid valve. It is also described in previous studies that approximately 14% of affected dogs also have evidence of associated pulmonary arterial hypertension.

The prevalence of the disease is higher in small breed dogs (under 20Kg), although large breeds can also be affected and it occurs more frequently in males than in females.

The present study aims to characterize the disease in a population of dogs in Portugal. We retrospectively reviewed the medical records of dogs presented to Hospital Veterinário do Porto, with an echocardiographic diagnosis of canine chronic mitral valve disease, during a period of 13 years.

From this records, 542 cases were identified, from which 331 (61.1%) were males and 211 (38.9%) were females. Most of the dogs were mixed breed (215) and 48 different breeds of dogs were represented. The Poodle was by far the most represented breed (n = 101; 39.7%), followed by English Cocker Spaniel (18.6%), Yorkshire Terrier (2.8%), Boxer (2.6%), Épagneul Breton (2.6%), Dalmatian (2.4%), Pekingese (2.4%), Labrador Retriever (2%) and Portuguese Podengo (1.8%). All other breeds represented 16.2% of the population.

Regarding weight, 79.8% of the dogs (n = 395) weighted <20 kg, with a mean body weight of 13.45 kg (range 1.6–62 kg). The mean age at diagnosis was 11.34 years old.

We also observed that 42.1% of the dogs (n = 278) had concomitant degeneration of the tricuspid valve and 19.4% (n = 105) pulmonary arterial hypertension (PH). We categorized these dogs according to the severity of PH, in mild PH if they had a Doppler echocardiography derived systolic pulmonary arterial pressure (SPAP) of 30–50 mm/Hg, moderate PH (SPAP 51–75 mm/Hg) and severe PH (SPAP > 75 mm/Hg). We found that 72.7% (n = 72) of dogs had mild PH; 19.2% (n = 19) moderate PH and 8.1% (n = 8) severe PH.

As described in previous studies, the disease affects mainly males and small breed dogs, with a breed distribution that reflects the canine population in the country, including very including very popular large breed dogs in Portugal, as the Boxer and Labrador.

Both the presence of concomitant tricuspid valve disease and PH had a higher prevalence in our study than previously described.

**Disclosures:** No disclosures to report.

## ESVC-P-13

## ANEMIA IN DOGS WITH MITRAL VALVE DISEASE: PREVALENCE AND ASSOCIATED RISK FACTORS.

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In people anemia is frequent in patients with heart failure (HF) and it is associated with poor outcomes. The most likely pathogenic factors include iron deficiency, chronic kidney disease (CKD), and cytokine production, although other factors may contribute. Little is known about the prevalence of anemia in dog with cardiovascular disease.

The aim of this retrospective study was to define the prevalence of anemia (Hct ≤ 37%) in dogs with mitral valve disease (MVD) and to investigate associated risk factors (age, weight, azotemia, HF, IRIS/ACVIM class).

Medical records of dogs presented at the Cardiology Service, DIVET, University of Milan (January 2003 - March 2015) were retrospectively evaluated. Dogs with MVD with complete physical, thoracic and echocardiographic examinations, and serum biochemical panel, including serum creatinine (sCr), were included in the study. Dogs with other heart or systemic diseases, except CKD, or neoplasm were excluded. Statistical analysis was performed using JMP 12.0 (SAS Institute). A p value <0.05 was considered significant.