with an area under the curve of 0.81 followed by TEI index and TAPSE ($p < 0.05$). Three cats from the left-sided heart disease group and 1 from the pulmonary group showed less TR velocity after treatment

STATEMENT (CONCLUSIONS)

Left-sided heart disease was the most common cause of PH in cats in this study. MPA/AO showed the best agreement with TR velocity. PH was reversible in 3 cats.

Development of atrial fibrillation and ventricular tachycardia in an adult cat with cor triatriatum sinister

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OBJECTIVES

To report the first documented case of development of atrial fibrillation and ventricular tachycardia, with R on T phenomenon in an adult cat with cor triatriatum sinister.

METHODS

An eleven-year-old, 5.3kg castrated male domestic short hair cat had an acute history of syncope and recently developed lethargy and inappetence. On initial presentation, the cat was bright, alert and responsive with severe generalized paresis. Auscultation revealed a tachycardic rhythm and weak femoral pulses were palpated. An initial

ECG showed runs of ventricular tachycardia with R on T phenomenon. Following stabilization, a 6-lead ECG showed atrial fibrillation (heart rate — 182beats/min). Cor triatriatum sinister (CTS) was diagnosed by 2D echocardiography, colour flow and continuous wave Doppler modes. Marked stenotic blood flow was noted through the perforation of the fibrous membrane, dividing the two atria, resulting in severe proximal atrial chamber dilation.

RESULTS

The cat was treated initially with esmolol (0.25mg/kg) intravenously once, followed by atenolol (6.25mg) orally. Following resolution of ventricular tachycardia, further diagnostics determined atrial fibrillation was the consistent rhythm, with intermittent, rare ventricular premature complex beats. Treatment and prognosis for CTS was discussed with the owners. However, in this case, humane euthanasia was elected.

STATEMENT (CONCLUSIONS)

This is the first case report to describe consequent sequelae of CTS in an adult cat. Previous case reports have only described this congenital abnormality in cats under the age of one year. Despite the outcome of this case, this case report describes both medical management and niche surgical options for the management of CTS in a cat.

Association between neutering status and cardiac changes secondary to myxomatous mitral valve disease

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OBJECTIVES

To determine if neutering status affects cardiac remodeling in male and female dogs with myxomatous mitral valve disease (MMVD).

METHODS

A retrospective study was conducted including 582 dogs who were diagnosed with MMVD between January 2008 and December 2016. Dogs were categorized into four groups: female entire, female neutered, male entire and male neutered. Transthoracic two-dimensional echocardiographic studies were performed by board-certified (ECVIM or ACVIM) cardiologists or cardiology residents under their supervision. For each dog four echocardiographic measurements were retrieved: left atrial dimension to aortic root diameter in diastole (LA:Ao), left atrium maximal dimension to the aortic root

Oral presentations

dimension in systole (LAmx: Ao) and left ventricular internal dimension at end diastole (LVIDd-N) and left ventricular internal dimension at end systole (LVIDs-N), which were normalized for body weight by allometric scaling. Echocardiographic measurements were compared between female entire vs female neutered and male entire vs male neutered.

RESULTS

Male entire dogs had higher mean LVIDd ($p = 0.045$) values and median LA: Ao ($p = 0.031$) and LAmx: Ao

($p = 0.002$) compared to male neutered dogs. On the other hand, LVIDs was not significantly different ($p = 0.070$). No significant differences were found between female entire and female neutered dogs.

STATEMENT (CONCLUSIONS)

This study shows that male entire dogs may have a higher risk of developing cardiac remodeling secondary to MMVD. It was suggested that testosterone could potentiate the extracellular matrix alterations characteristic of MMVD. Further studies are needed to detail this hypothesis.

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