

Intracardiac Thrombosis in a 5 years-old German Shepard

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Intracardiac thrombosis (ICT) is rare in dogs and thrombi in the left sided heart chambers are even rarer. Predisposing factors for ICT include cardiac dilatation, arrhythmias, and hypercoagulability. This report describes multiple intracardiac thrombi; a large left ventricular thrombus and three other small thrombi in the right ventricle, in a 5-year-old German shepherd. At the presentation, the patient was recumbent, severely dyspnoeic and had an enlarged abdomen, hind limb oedema, urinary incontinence, and constipation. Physical examination revealed 8% dehydration, hypothermia, tachycardia, generalized dependent oedema, pale mucous membranes, and open- mouth breathing. Right lateral thoracic radiographs showed cardiomegaly (VHS of 12.5, RI: 9.2-10.5), prominent cranial pulmonary veins, and pulmonary oedema. Echocardiograph revealed enlarged cardiac chambers and a mild pericardial effusion. A 41mm diameter spherical hyperechoic mass freely moving between the left ventricle and mitral valve was identified with three smaller masses in the other three chambers. In addition to the mass lesions, there was mitral valve regurgitation and aortic and a tricuspid insufficiency. Complete blood count revealed regenerative anaemia, thrombocytopenia and serum biochemistry identified azotaemia, and elevated creatinine. Differential diagnoses for the mass lesions included intracardiac thrombosis, valvular endocarditis and neoplasia. Despite the treatments with amoxicillin/clavulanic acid, furosemide, spironolactone, omeprazole, and supportive care, the dog died on the day after admission. Necropsy confirmed presence of a 44 mm grey-tan mass occupying the left ventricle and smaller masses in the right atrium and ventricle, along with renal and splenic infarcts secondary to thromboembolism. Histopathology of the large and small masses revealed concentric layers of platelets, white blood cells, fibrin, and red blood cells (lines of Zahn) which were consistent with thrombi. The exact aetiology of ICT in this dog was suspected to be multifactorial and have not been studied.

Keywords: Intra Cardiac Thrombi, Left Ventricle, Dog, Lines of Zahn