

Radiographic, Echocardiographic and Ultrasonographic Evaluation of Hypertrophic Cardiomyopathy with Aortic Thromboembolism in Two Cats

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Signalment: Two cats were referred to Seoul National University Hospital for Animals because of paralysis of bilateral hindlimbs after vomiting. One cat was an 8-year-old, neutered male, domestic short haired cat and the other was a 10-year-old, neutered male, Persian cat. The cats were depressed and the bilateral hindlimbs were cyanotic, cool and painful.

Results: Heart murmur sounds were auscultated in both cases. Cardiomyopathy and associated aortic thromboembolism (TE) were suspected. Survey radiography, echocardiography and abdominal ultrasonography were performed. On thoracic radiographic evaluation, cardiomegaly with valentine shaped cardiac silhouette was shown in both cats. Cardiac apex was shifted toward the right side on the ventrodorsal view. Patchy interstitial to alveolar lung infiltration was observed. Generalized or regional thickening of the ventricular wall and papillary muscles in the left ventricle was identified on echocardiography. Through radiographic and echocardiographic evaluation, hypertrophic cardiomyopathy (HCM) was diagnosed. TE at the distal aortic trifurcation, in other words, "saddle thrombus" was visualized on abdominal ultrasonography. In one cat, HCM and saddle thrombus were confirmed by postmortem examination.

Clinical Relevance: Distal aortic TE is one of the most serious complications of cardiomyopathy in the cat. TE can occur with any form of feline cardiomyopathy, but HCM is most commonly associated. The aortic trifurcation is one of the most common locations for arterial TE in cats. In this report, HCM and aortic TE diagnosed by echocardiography and abdominal ultrasonography in two cats were presented.

Key words: feline hypertrophic cardiomyopathy, aortic thromboembolism, radiography, echocardiography, ultrasonography

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