

Echocardiographic, Magnetic Resonance Angiography and Pathologic Results of an Iliac Arterial Thromboembolism (Saddle Thrombus)

in a Cat^[1]

(Bir Kedide İliak Arteryal Tromboembolizmin (Saddle Trombus) Ekokardiyografik, Magnetik Rezonans Anjiografi ve Patolojik Bulguları)

Hakan SALCI¹  Meriç KOCATÜRK² Volkan İPEK³
Melike ÇETİN¹ M. Müfit KAHRAMAN³ Zeki YILMAZ²

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¹ Department of Surgery, Faculty of Veterinary Medicine, Uludag University, TR-16059 Bursa - TURKEY

² Department of Internal Medicine, Faculty of Veterinary Medicine, Uludag University, TR-16059 Bursa - TURKEY

³ Department of Pathology, Faculty of Veterinary Medicine, Uludag University, TR-16059 Bursa - TURKEY

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Dear Editor,

Arterial thromboembolism (ATE) is a common mortal complication of the myocardial diseases in cats^[1-3]. The different forms of the cardiomyopathy cause the ATE, and underlying cardiac etiology is the hypertrophic cardiomyopathy (HCM) in 13% of encountered cases^[1,2]. Endothelial dysfunction associated with slowing down of the circulation in left atrium leads to local thrombus formation. Thrombus origins to left atrium and cause the ATE and ischemia at the bifurcation of the distal abdominal aorta, which is named as "saddle thrombus". Diagnosis of the disease usually determined based on the clinical examination results and prognosis is poor, if the ischemia localizes the hind limbs bilaterally^[1,3]. Here, echocardiographic (ECHO), magnetic resonance angiography (MRA) and pathologic results of an iliac ATE in a cat were presented for veterinary practitioners in a cat.

Scottish fold breed, a 2 year-old, male cat was presented with sudden onset of bilateral hind limb paresis. Clinically, bilateral painfully hind limbs, lack of the femoral pulsation, cyanotic pulvinuses and paraparesis were detected. There was no abnormality on the radiographs of the vertebral column. Electrocardiography pointed out the sinus rhythm; however, ECHO examinations revealed the HCM (Fig. 1). These results suspected the ATE; thus, a MRA was planned to investigate the distal branches of the aorta. The MRA images demonstrated that there was a narrowing abdominal aorta at the level of kidneys and the contrast

medium (omnipaque 10 ml, iv.) was not progressing caudally at the level of iliac arteries (Fig. 2).

Based on the ECHO and MRA results an ATE (saddle thrombus) due to HCM was diagnosed.

Medically, a therapy protocol including prednisolone (1 mg/kg, iv.), heparin (0.1 ml, iv.), ranitidine (2.2 mg/kg orally) and enalapril (2.5 mg, oral) were started daily, and aspirin (100 mg, orally) was added this protocol after a day. However, the cat died in a week even though the care and therapy regimen provided.

In the necropsy, a "Y" shaped, 3-4 cm long, fragile, heterogenic thrombus was determined at the caudal abdominal aorta, which was extending to bifurcation of the iliac arteries. It was also attached to vessels lumens (Fig. 3a).

Microscopically, a fibrin thrombus attached to intima of the vessel was observed (Fig. 3b).

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İletişim (Correspondence)



+90 224 2940841



hsalci@uludag.edu.tr

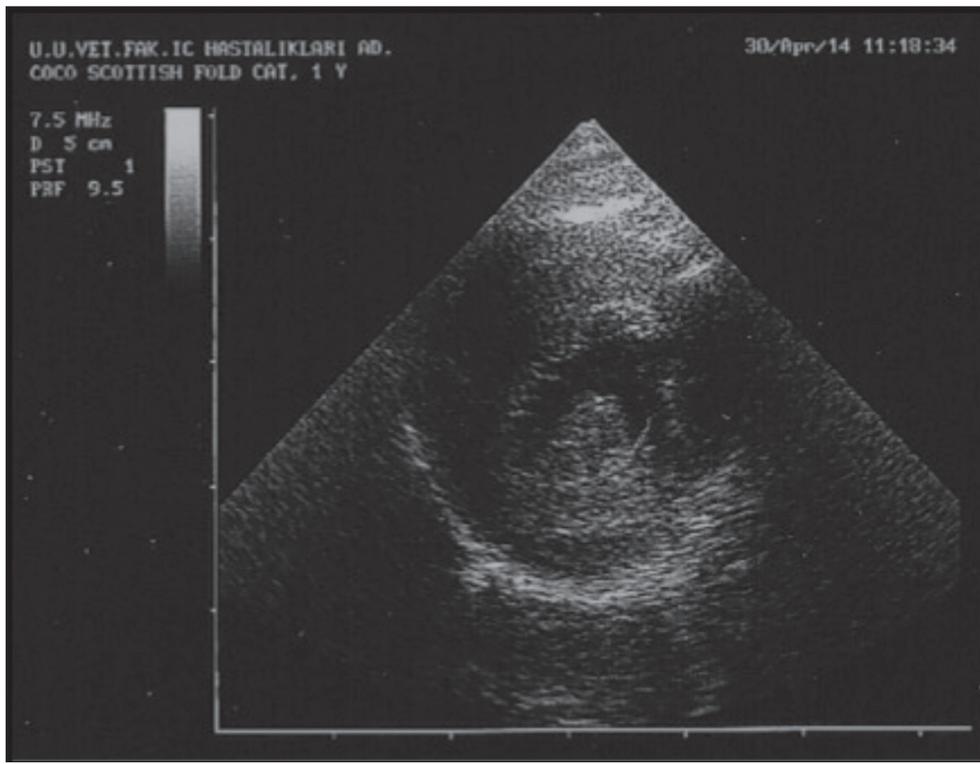


Fig 1. Hypertrophic cardiomyopathy diagnosed in Echo view

Şekil 1. EKO'da tanınan hipertrofik kardiyomyopati

Fig 2. MRA view. The point of arterial thromboembolism observed in the abdominal aorta (arrow)

Şekil 2. MRA görüntüsü. Abdominal aortada görülen arteriyel tromboembolizmin bulunduğu nokta (ok)

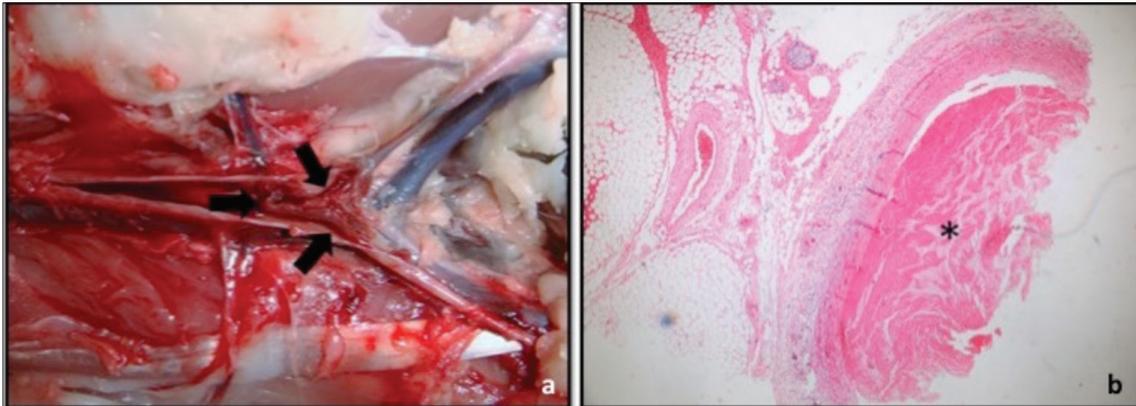
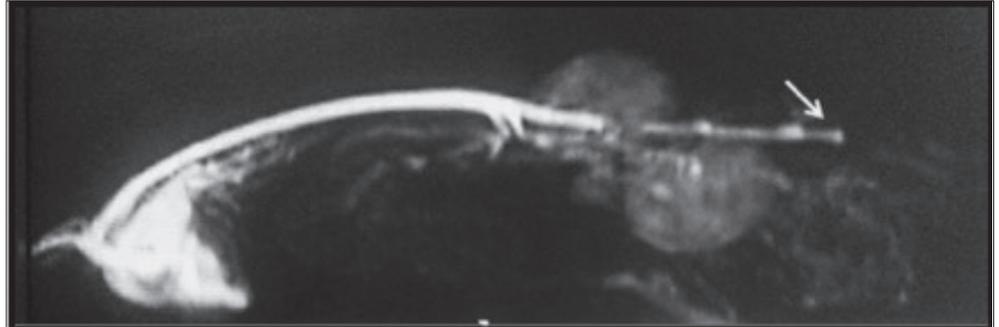


Fig 3. a- "Y" shape thrombus determined at the caudal abdominal aorta and bifurcation of the iliac arteries, **b-** a mostly fibrin thrombus attached to intima of the vessel intima (asterisk), H&E x40

Şekil 3. a- Caudal abdominal aortada, iliak arterlerin bifurkasyonunda saptanan "Y" biçimindeki trombus (oklar), **b-** çoklukla damar intimasına yapışık fibrin trombusu (asterisk), H&E x40