Olgu Sunumu

BEHÇET HASTALIĞINDA YÜZEYEL FEMORAL ARTERİN SPONTAN PSÖDOANEVRİZMASININ NONİNVAZİV YÖNTEMLERLE TANISI

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ÖZET

Behçet hastalığı, nedeni bilinmeyen, vaskülit ile seyreden multisistemik inflamatuar bir hastalıktır. Arteriyel tutulum daha nadir olup, sıklıkla anevrizma şeklindedir. Vasa vasorumların inflamatuar obliterasyonuna sekonder psödoanevrizma gelişebilir. Behçet hastalığında minör travmalar dahi psödoanevrizma oluşturabileceği için olabildiğince invaziv işlemlerden kaçınmak gerekir. Sunumumuzda, yüzeyel femoral arterinde psödoanevrizma bulunan bir Behçet hastalığı olgusunun Renkli Doppler Ultrason (RDUS) ve Bilgisayarlı Tomografik Anjiyografi (BTA) gibi noninvaziv yöntemlerle konulan tanısı tartışılmıştır.

Anahtar Kelimeler: Behçet hastalığı; bilgisayarlı tomografik anjiyografi; psödoanevrizma

NONINVASIVE DIAGNOSIS OF SUPERFICIAL FEMORAL ARTERY PSEUDOANEURYSM IN BEHCET'S DISEASE

SUMMARY

Behcet's disease is a multisystemic inflammatory disease of unknown cause, presenting with vasculitis. Arteriel involvement is less common and it is frequently in the form of an aneurysm. Pseudoaneurysm may develop secondary to obliterative endarteritis of the vasa vasorum. Even minor trauma can create a pseudoaneurysm in Behcet's disease. Therefore, invasive procedures should be avoided as much as possible. We evaluated the case of Behcet's disease with radiological findings that had superficial femoral artery (SFA) pseudoaneursym with non-invasive methods such as Color Doppler Ultrasound (CDU) and Computed Tomographic Angiography (CTA).

Key Words: Behcet's disease; computed tomographic angiography; pseudoaneursym

INTRODUCTION

Behcet's disease (BD) is an inflammatory disorder of unknown cause, characterized by recurrent oral aphtous ulcers, genital ulcers, and uveitis. The disease is more severe in men than women and in those younger than 25 years at disease onset. It can affect the arteries and veins in different diameters. Vascular system involvement is seen in about 25-30% of the patients and it is the major cause of mortality[1]. Venous system involvement (85%) is more frequent than arterial system involvement (10-15%)[2]. Arterial involvement of the disease has been reported in

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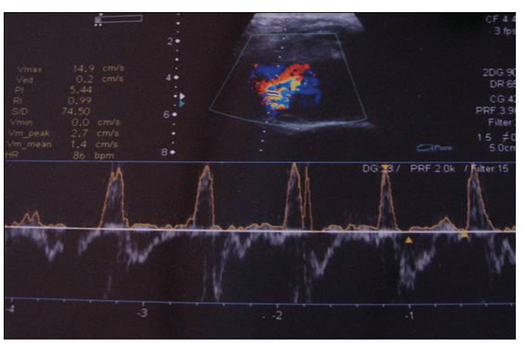
0-3.6% of patients and the abdominal aorta, subclavian artery and carotis artery are the most commonly affected vessel[3]. The aneurysm surgery of Behcet's disease is difficult and recurrent aneurysm is frequent. In addition, rate of thrombus and pseudoaneurysm development is high at the surgical site or elsewhere[4,5]. Aneurysms can also develop at sites of arterial puncture for digital subtraction angiography (DSA). Therefore, noninvasive diagnose and treatment metods are important. The purpose of this paper wa to evaluate imaging findings in superficial femoral artery pseudoaneurysm which was determined by Colour Doppler Sonography (CDU) and Computerize Tomografic Angiography (CTA).

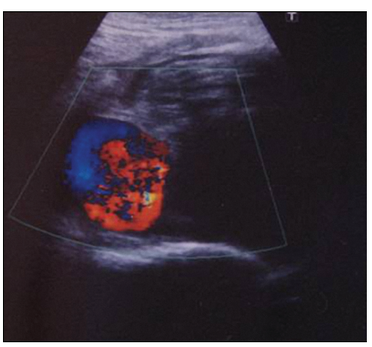
CASE REPORT

The patient who had been followed because of Behcet's disease for nearly ten years, 47 years old, male was admitted to the orthopedic clinic because of painful swelling in the thigh and he was referred to our clinic for an ultrasound examination. No recent history or remote trauma and drug abuse was elicited. On admission, the patient was hemodynamically stable. Physical examination revealed a mass on the medial of left thigh that was pulsatile and tender on palpation. Gry scale sonography (US) showed a 60x56 mm-diameter, round and heterogen a mass that was displased the superficial femoral vein at the medial left thigh. The pseudoaneurysm which was determined by US had thrombus, 'ying- yung' and 'to and fro' flow (Figure 1,a-b). Pseudoaneurysm was thought to be primarily originated the superficial femoral artery and the CTA was suggested for treatment plan. CTA tecnique; the catheter is placed at the antecubital vein, and contrast material is injected (100 cc, 3.5 cc/sn) with a automatic injector. The contrast density in aorta was tracked by bolus track technique. The craniocaudal screen started when it was reached contrast density to 100 HU and the images was obtained in the 1.25 mm thickness. The images was transfered to workstation and was created maximum intensity projection (MIP) and volum rendering (VR) images. The axial scan and CTA was showed a large pseudoaneurysm with partial thrombosis (about 60 mm in diameter) that orginates in the superficial artery, with peripheral mural thrombosis and it was showed prominent central contrast enhancement (Figure 2,a-b). The patient was operated. The aneurysmal sac was evacuated and polytetrafloro-etilen patch-plasty was performed to the defect of superficial femoral artery. At the end of the first year, the patient was asymptomatic with a patent superficial femoral artery on Doppler study.

DISCUSSION

Four forms of vascular disease have been found in BD such as arterial occlusions, aneurysms, venous occlusions and varices[6]. Arterial involvements are lesser complications of BD. It involves aneurysm formations in 65% and occlusions in 35%[2]. The patogenesis of the pseudoaneurysm





Captures of figures:
Figure 1,a: Spectral Doppler US shows to and fro flow in the neck of pseudoaneursym b: Color flow demostrating blood flow (ying-yung) in the SFA through the neck into the pseudoaneursym.

are thought to be vasculitis which is described as adventitial thickening and fibrosis, perivascular lymphocytic infiltration, obliterative endarteritis in the wall of artery[2]. Aorta and major vessel aneurysm ruptures can causes death[7]. CDU, CTA, magnetic resonance angiography (MRA) ve DSA are imaging techniques in vascular system involvement of BD. CDU is a vascular imaging method which is noninvasive, nonionizan, cheap and easy. However, CDU is sometimes limited in detecting origin of aneurysm**.** Describing the characteristics of aneurysm are very important before the surgery. For this reason, angiography is required. Although DSA is important method in diagnosing and treating of vascular involvement in BD, insertion of an arterial or venous catheter may induce either a thrombosis or pseudoaneurysm formation at the puncture site (7,8). Huong et al reported that 17% of pseudoaneuysm revealed at puncture sites[8]. Even minor trauma in patients with Behcet's disease may lead to the development of pseudoaneurysm, which focused away from these cases studied interventional procedures. Therefore, non-invasive diagnostic methods such as CTA and MRA should be preferred in this disease if there are no plans for endovascular treatment[9]. Although MRA is a nonionizan and noninvasive method for vascular assessment, it has a lesser spatial resolution than CTA. Türkçe dilinden İngilizce diline çevir ly expensive and time consuming in comparison with CTA and CDU. The examination time of MR is long and very sensitive to the effect of motion and flow. CTA is more accurate than MRI because it has a higher spatial resolution and causes less artifacts. CTA is a vascular imaging method which is very fast, noninvasive and it has a high spatial resolution. Optionally, image plan could be changed and could reached the optimal image quality.The CTA's disadvantages are the use of contrast material and ionizing. However, increased scanning speed has caused decrease of the the contrast material use[10].

The patient who had a history of Behcet's disease has had typical imaging features of pseudoaneurysm such as ying-yung and to - fro patern. An aneurysm's associated with SFA was manifested with CTA.

The surgical treatment of Behcet's disease with arterial complications is very difficult due to da-

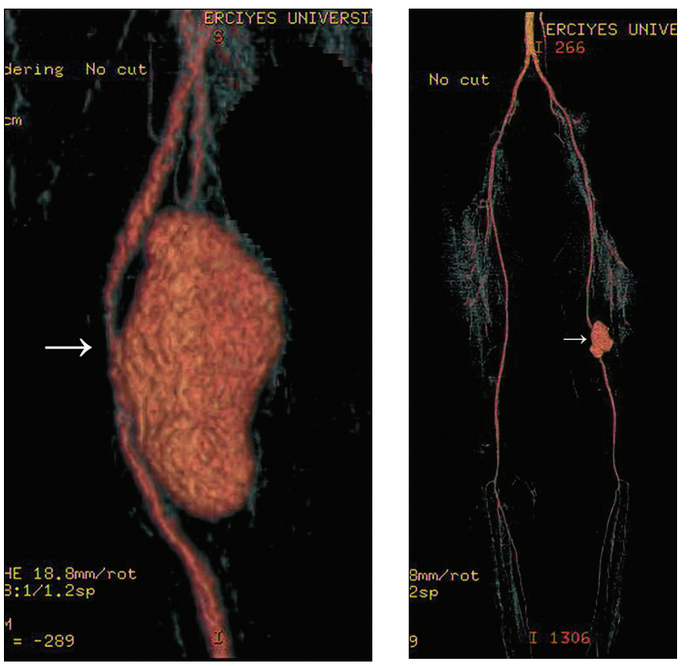


Figure 2,a-b: CTA shows a aneurysm (about 60 mm in diameter) that orginates in the SFA (arrow).

maged vessel wall. The repairs with otogen vein or synthetic graft can cause pseudoaneurysm at the anastomotic place[11]. In a study, recurrence rate of the resection with interposition graft, patch closure and after stent-graft insertion were 14.3%, 62.5% and 40%, respectively[12]. At the end of the first year, our patient who had been treated with PTFE graft interposition was asymptomatic.

In conclusion, CDU and CTA are safe and noninvasive method in the diagnosis and follow of vascular lesions in Behcet's disease. CDU or CTA should be prefered rather than DSA for analysing the status of this disease if there are no plans for endovascular treartment.

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