



A Dramatic Involvement! A Case with Right-Left Coronary Ostial Stenosis Accompanied by Multiple Vascular Involvements due to Takayasu Arteritis

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ABSTRACT

Takayasu arteritis is a chronic, idiopathic, inflammatory, systemic disease that primarily affects large vessels such as the aorta and its main branches. A 37-year-old woman who had 98% left coronary ostial stenosis and right coronary ostial stenosis due to Takayasu arteritis was recommended transaortic patch enlargement of the stenosed left coronary ostium and right coronary ostium. We believe that this technique is more suitable and recommendable than conventional coronary bypass for coronary ostial stenosis in cases with Takayasu arteritis.

Key Words: Takayasu arteritis; aorta-ostial coronary lesion; multiple vascular involvement

Dramatik Tutulum! Takayasu Arteritine Bağlı Çoklu Damar Tutulumunun Eşlik Ettiği Sağ-Sol Koroner Ostial Darlıkları Bir Olgu

ÖZET

Takayasu arteriti aort ve onun ana dalları gibi primer büyük damarları etkileyen kronik, idiyopatik, inflamatuvar ve sistemik bir hastalıktır. Takayasu arteritine bağlı %98 sol ana koroner ostial lezyonu ve %98 sağ koroner ostial lezyonu olan 37 yaşında kadın hastaya transaortik peç anjiyoplasti önerildi. Bu tekniğin özellikle Takayasu arteritine bağlı osteal lezyonlarda, konvansiyonel koroner baypasa göre daha uygun ve daha güvenilir bir alternatif olduğunu düşünmekteyiz.

Anahtar Kelimeler: Takayasu arteriti; aorta-ostial koroner lezyon; çoklu damar tutulumu

INTRODUCTION

Takayasu arteritis (TA) is a non-atherosclerotic, chronic and inflammatory disease of the aorta, its main branches (including proximal coronary and renal arteries) and elastic pulmonary arteries. TA has various synonyms such as aortic arc syndrome, aortitis syndrome, pulseless disease, brachiocephalic arteritis, occlusive trombo arteritis, non-specific aorta-arteritis and Martorell syndrome. TA is seen in young women⁽¹⁾. As the systemic symptoms in the early stages of the disease are not special to the disease, diagnosis is usually delayed. The coronary involvement increases the morbidity and mortality of the disease. We presented in our study a case of right-left ostial coronary stenosis accompanied by multiple vascular involvement.

CASE REPORT

A 37-year-old woman who had fatigue and chest pain continuing for 2 years was admitted to the emergency clinic because she experienced an aggravation of symptoms in the last 3 days. The patient's medical history revealed that she had TA since 10 years and used immunosuppressive agents. Diastolic murmur grade 3/6 in the aortic area was found on physical examination. The left upper extremity pulses were weaker than the right ones. The pulses in the bilateral lower extremities were weak. Echocardiography revealed that the left ventricular systolic functions were normal and aortic insufficiency grade 2 was available. The level of troponin I was 3.5 ng/mL. The patient was diagnosed with non-ST segment elevation myocardial infarction. As the lower extremity and left upper extremity pulses were weak, magnetic resonance (MR) angiography was performed. MR angiography demonstrated that the aortic flow was suddenly interrupted at the level of the renal arteries, the aorta tapered and there was significant stenosis in the iliac arteries (Figure 1,2). In addition, another significant stenosis in the left subclavian artery was diagnosed (Figure 3). The patient underwent right radial angiography according to the existing results because the pain continued despite

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optimal treatment. In the coronary angiography, a concentric lesion leading to 98% stenosis in the left main coronary artery ostium and a concentric lesion leading to 98% stenosis in the right coronary artery ostium were diagnosed (Figure 4,5). We decided to initiate drug therapy for the non-coronary multiple vascular involvements developed secondary to the disease.



Figure 1. MR angiography demonstrated that the aortic flow was suddenly interrupted at the level of the renal arteries and the aorta tapered (white arrow: aortic lesion).



Figure 2,3. Significant stenosis in the iliac arteries was observed on MR angiography (white arrow: iliac artery lesions). Significant stenosis in the left subclavian artery was observed on MR angiography (white arrow: Significant stenosis in the left subclavian artery).

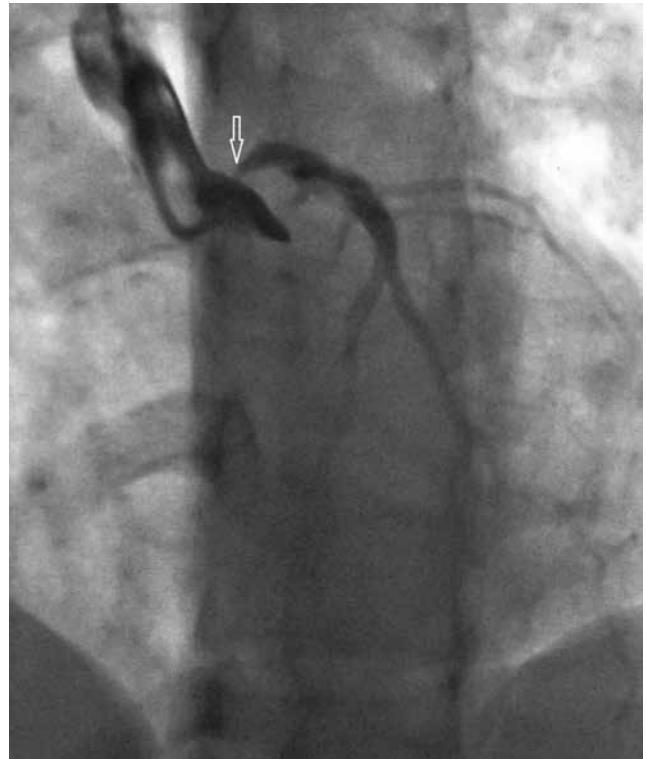


Figure 4. A concentric lesion leading to 98% stenosis in the left main coronary artery ostium was observed in the left radial coronary angiography (white arrow: coronary lesion).

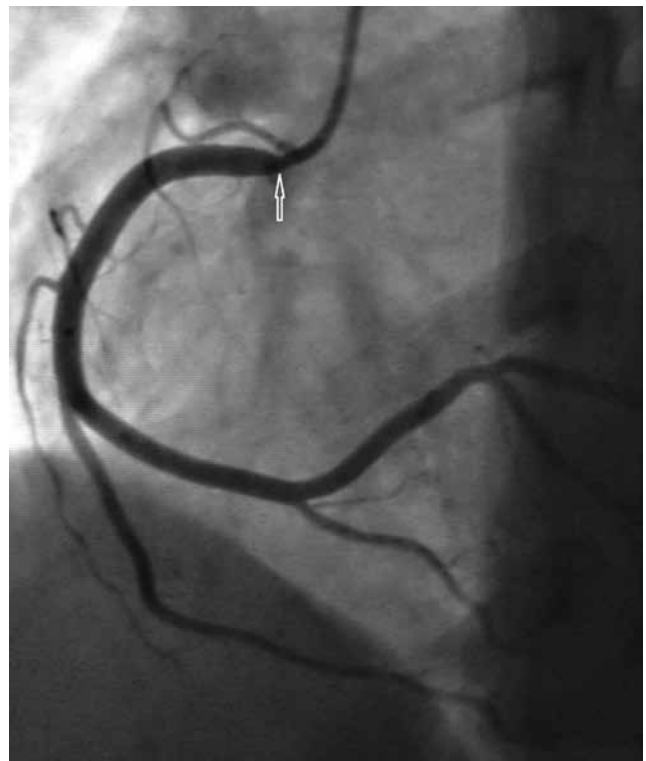


Figure 5. A concentric lesion leading to 98% stenosis in the right coronary artery ostium was observed in the right radial coronary angiography (white arrow: coronary lesion).

The patient was recommended early invasive intervention with regard to transaortic patch angioplasty. The patient, who expressed that she wanted to undergo the operation in a different centre, was discharged from the hospital following optimal medical treatment.

DISCUSSION

TA is an inflammatory disease of unknown aetiology, which involves the aorta and its main branches. It involves the coronary ostia besides the aortic valve. In TA, techniques such as percutaneous transluminal angioplasty, venous or arterial bypass with or without endarterectomy and transaortic patch angioplasty are used for the treatment of coronary ostial lesions⁽²⁾. The ostial lesion in TA is recognized as an aortic valve disease rather than a coronary artery disease. Therefore, patch angioplasty provides a more physiological improvement than conventional coronary bypass. The early results of coronary bypass in TA are not good. Ohara et al. reported the patency rate of grafts to be 50% as a result of the follow-up of six patients who underwent bypass^(3,4). In our case, there was a significant stenosis in the left subclavian artery; therefore, IMA could not be used for bypass. In addition, the use of a saphenous graft would create other problems for the bypass operation because valve thickening might develop secondary to the inflammation

of the aortic valve. The patient was recommended transaortic patch angioplasty considering that patch angioplasty was more reliable and suitable than conventional coronary bypass. We decided to initiate drug therapy for the non-coronary multiple vascular involvements developed secondary to the disease.

As a result, considering that aorta-ostial coronary involvement may develop in patients with acute coronary syndrome accompanied by TA, planning an early invasive intervention is essentially important in order to prevent fatal complications. In addition, it should be noted that TA may lead to non-specific symptoms, and if necessary, the coronary ischemia should be investigated by non-invasive stress tests. Studies for determining the aetiology of the disease would shed light on the optimal anti-ischaemic treatment.

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