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Abdominal aortic aneurysm extending to the renal arteries complicating behcet disease

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Abstract

Vascular injury in behcet's disease is quite frequent and has a poor prognosis, especially arterial involvement which seems to be dominated by aneurysmal lesion We report the case of a young patient followed for behcet's disease with an aneurysm of the abdominal aorta having the particularity to be extended towards the renal arteries.

Keywords: Behcet; aorta; aneurysm, renal arteries, young patient.

Introduction

Behcet's disease is a systemic vasculitis of unknown etiology affecting arteries and veins of different calibre. Vascular manifestations are frequent and occur mainly in young male subjects. Depending on the series, arterial injury affects 4 to 17% of patients [1], and occurs early in the course of the disease. Aortic lesion is rare and serious and can be life-threatening in the event of rupture [2].

Observation

H.OA is a 37 year old man who has been followed for 5 years for Behçet's disease, diagnosed with bipolar aphthosis, pseudo folliculitis, thrombosis of the right subclavian artery, an aneurysm of the supra- and sub-renal aorta, and an aneurysm of the right common femoral artery. The patient's history includes a ruptured fusiform aneurysm of the right common femoral artery for which he underwent flattening with end-to-end anastomosis and placement of a prosthesis

A total aortic angioscan was ordered as part of the work-up for a relapse of his disease, which revealed a saccular aneurysm of the abdominal aorta encompassing the renal arteries and located above and below the kidney measuring 43 mm in anteroposterior diameter and extending for approximately 118 mm, with partial thrombosis of the aneurysm sac reducing the circulating lumen to a maximum of 57% (**Figure 1**).

The aneurysm and thrombosis of the aneurysm sac fuse to the renal arteries with right: the thrombosed aneurysm reaches the hilar level, respecting the intrarenal arteries which are of normal calibre and permeable. On the left: the aneurysmal dilatation reaches the medial and inferior polar branches which are completely thrombosed with renal damage (infarction), while the superior polar artery remains permeable.

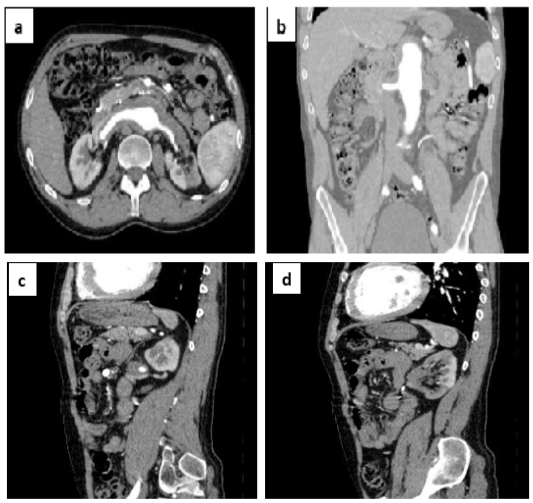

***Figure 1:** Axial section and coronal reconstruction image (a) showing partially thrombosed aneurysm fusing to the renal arteries with total thrombosis of the inferior polar and medial renal branches of the left renal artery with inferior polar renal infarct (c, d).*

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Discussion

Behcet's disease is a multi-systemic vasculitis characterised by a triad of recurrent bipolar aphthosis (oral and genital) and ocular involvement [3,4]. The manifestations frequently found are: cutaneous-mucosal, nervous, ocular, neurological and vascular. Venous lesion is more frequent than arterial involvement and involves the entire venous system [3,5]. Arterial injuries in Behçet's disease is rare, occurring in only 4 to 17% of patients [1], and has a poor prognosis [6], particularly aneurysms which can progress to rupture. It can be either thrombosis, stenosis, aortic disease, aneurysm or false aneurysm in relation to aphtholes in the wall of the aorta, pulmonary arteries, and arteries of the lower limbs [7,8].

This was the case in our patient with multiple vascular injuries: abdominal aortic aneurysm, thrombosis of the right subclavian artery, and aneurysm of the right common femoral artery. The main location is aortic (abdominal (11%) or thoracic (5%), followed by femoral (15%), pulmonary (14%) and iliac (14%) [9]. In recent decades the number of published cases of aortic aneurysm in Behcet's disease has been increasing. 4 cases of abdominal aortic aneurysm in the series by Hamzaoui [10]. 19 cases of aortic aneurysms out of 53 cases of arterial involvement in Behcet's disease in the series by Azghari [11], 39 cases in the series by Hamza [12]. In a review of the Japanese literature he reported 31 cases of abdominal involvement out of 46 [13]. 2 cases of abdominal aortic aneurysms among 30 cases of angio-behcet in the series of El Ghazi The pathophysiology of arterial vascular involvement in Behcet's disease is still poorly understood.

Some authors believe that the anatomical substrate of arterial lesions involves in particular parietal factors [15,16]. The favourable role of local trauma in the occurrence of an aneurysm has been emphasised: at the point of arterial puncture or during trauma. The etiopathogenesis of blood hypercoagulability is not clearly established. The clinical manifestations depend on the location of the aneurysm and its stage of development Abdominal aortic lesion is variable: from an asymptomatic state, to atypical symptoms such as back pain or abdominal pain, which are often overlooked by the patient, to complications [14].

Conclusion

Behcet's disease is a fairly common systemic disease of unknown cause that affects arteries and veins of different calibre. Vascular involvement and particularly aortic injury can have a poor prognosis as it evolves towards spontaneous rupture.

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