Case report

Carotid artery pseudoaneurysm in Behcet’s disease

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Abstract

We report a case of carotid artery pseudoaneurysm occurring in a patient with Behcet’s disease for the purpose of discussing approach to this unusual complication of Behcet’s disease. © 2001 Elsevier Science B.V. All rights reserved.

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1. Introduction

Behcet’s disease is a multisystemic disease characterized by relapsing uveitis and oral and genital ulcerations. Additional manifestations consist of vascular findings in the skin joints and elsewhere. This disease appears most frequently in the Middle and Far East. The most striking vascular findings are multiple central and peripheral arterial aneurysms. Their surgical repair is an extremely hazardous undertaking.

Our patient (a female) at the age of 34 had a history of Behcet’s disease. Two years ago, she began to have fever, genital and oral ulcers and lost weight as a result of anorexia. One year later, she developed abdominal pain and she was taken for exploratory laparatomy in a general surgery clinic. At laparatomy, there were both a lot of lenfadenopaty in the abdominal cavity of size 2–3 cm and also inflamma
tory intestine. Lenfoid biopsy was performed. The microscopic examination showed a non-specific acute inflammation.

She still continued to feel unwell. She had recurrent thrombophlebitis. Finally, she developed a mass on the right carotid artery trace. Symptoms were related to her mass and compression on adjacent structures. She had a iatrogenic right carotid arterial puncture history. Computer-ized tomography (CT) demonstrated a partly thrombosed false aneurysm both to the right common and internal carotid artery (Fig. 1). She was dispneic and oxygen dependant. We decided to perform an operation. At surgery the mass was found surrounding the carotid artery and involved the bifurcation. The patient was heparinized. The arteriotomy was performed in the common carotid artery. A balloon-tipped intraluminal carotid shunt was carefully advanced into the lumen of the internal carotid artery. The pseudoa
neurysm was entered sharply, and the arterial defect was identified and controlled digitally. Arteria carotid interna was fragile and delicate. A carotid internal to common carotid artery by-pass was then performed using 4–6 mm polytetrafluoroethylene (PTFE) graft.

Histological examination of the false aneurysm wall showed an obliteration type of arteritis. As the patient had multiple vascular component of Behcet’s disease, immunosuppressive therapy began (azothioprine, corticosteroid).

2. Comment

Pseudoaneurysms of the extracranial carotid artery are rare in comparison with pseudoaneurysms in other major arterial segments of the body [1].

For many years, the known vascular complications in Behcet’s disease have been attributed to thrombophlebitis. But a considerable number of reports have been published relating to cases with aneurysm and arterial occlusion [2,3]. This disease, most frequently affecting Mediterranean and Asian populations in the third and fourth decades of life, is associated with other systemic findings including cutaneous erythematous nodules, and inflammatory processes of the gastrointestinal system. Our patient, 34 years old, had a history of oral and genital ulceration; two thirds of Behcet’s triad. She had further history of cutaneous nodules and episodes of superficial thrombophlebitis. The undertaken laparatomy has been related to the enteritis. Involvement of medium or large arteries has been clearly demonstrated but infrequently reported [4,5].
Invasive percutaneous arterial procedures (diagnostic angiography) should be approached with caution as the vessel wall is likely to rupture. Angiography should be unjustified because of the increased risk of pseudoaneurysm formation at puncture sites. Noninvasive testing may allow early diagnose and early intervention for arterial complications. CT could easily be performed in this patient. CT was able to diagnose thrombosed pseudoaneurysm (Fig. 1).

Of the vascular changes in Behcet’s disease, aneurysms develop at a relatively early age and are extremely prone to rupture. Because the incidence of carotid aneurysms is low and it is difficult to predict the natural history and risk of rupture of these abnormalities [6]. Therefore an aggressive surgical approach, initiated a soon as the diagnosis of this disease becomes definite, is mandatory for aneurysm. In our patient symptoms increasingly continued in the following 3 days. Since CT provided an excellent modality for evaluating pseudoaneurysm, the patient was operated on without applying any other invasive methods. When the patient was taken for operation, pseudoaneurysm had almost been fistulized on the surface of the skin.

Multiple aneurysms develop in Behcet’s disease. However, Behcet’s disease is the only vasculitis known to lead to pulmonary artery aneurysms [3,7]. In our patient, postoperative CT showed that right pulmonary artery aneurysms was present (Fig. 2).

Most deaths from Behcet’s disease stem from arterial complications resulting in ischemic bowel perforation, exanguinating hemorrhaging after aneurysm rupture, and cerebrovascular accidents. To prevent this outcome, such patients should receive regular immunosuppressive therapy. Our patient had received irregular immunosuppressive therapy before aneurysm formation.

In such patients, the approach should be focused on the early diagnosis made in that patient before the occurrence of the pseudoaneurysm and on the necessary avoidance of any diagnostic invasive arterial procedure.

References