CASE REPORT

Infectious Aneurysm Formation After Depot Acupuncture

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Introduction

Acupuncture has become prevalent not only in Asia but also worldwide for the treatment of chronic pain. Depot acupuncture involves the implantation of sheep plain “gut” thread into the “meridian point” through a spinal-anesthesia needle. It is claimed that this type of acupuncture is more effective than conventional acupunctures and that it is effective for waist pain, glaucoma, gastric ulcer, uterine myoma and several other diseases.1

Case Report

A 67-year-old man was admitted with high fever (39.2 °C) and intractable back pain for 1 month. White cell count was 11 900 mm3 and C reactive protein level was 20.6 mg/dl. He had received depot gut therapy twice, 6 and 7 months before admission. Computed tomography revealed a low density mass in the left psoas muscle and the ventral portion of the distal aorta (Fig. 1a). The former was an abscess and the latter was a false aneurysm. Angiography showed an aortic false aneurysm (Fig. 1b). At operation, there was inflammation of peritoneum and firm adherence of the aneurysm to the vertebrae. Culture of the granulation tissue was negative. Atherosclerotic changes of the aorta were severe. The infra-renal abdominal aorta, including the aneurysm and the bilateral iliac arteries, were removed with debridement of infected tissues in order to prevent infection. The aorta was replaced with a polytetrafluoroethylene (PTFE) Y-graft, which was covered with omental flaps. The proximal and distal anastomoses were sewn with continuous sutures of 4-0 and 5-0 Gore-Tex, respectively. Histologically, the aneurysmal wall showed an abrupt disruption of the medial elastic lamellae (Fig. 2a) and consisted of the adventitia only. Many lymphocytes and few neutrophils aggregated in the adventitia of the aneurysm. No bacteria were detected. Several foreign-body-type giant cells were scattered in the wall (Fig. 2b). Antibiotics (cefazolin sodium and isepamicin sulphate) were administered intravenously for 8 days postoperatively. Although he suffered from transient ischemic colitis postoperatively, he recovered and has not shown any recurrence 2 years after the operation.

Discussion

There are many reports of complications after acupuncture. However, to our knowledge, this is the first report of infectious aneurysm and only the fourth reported case of pseudoaneurysm after acupuncture. Fujiwara et al.2 reported a case of pseudoaneurysm of the costicervical artery after insertion of 20–30 acupuncture needles around the shoulders, mostly along the spina scapulae. Lord3 reported a case of false aneurysm of the popliteal artery. Matsuyama4 reported a case of retroperitoneal hematoma due to rupture of
Fig. 1. (a) Computed tomographic scan of the abdomen revealed a low density mass in the left psoas muscle and in the ventral portion of the terminal aorta. The former was an abscess and the latter was a false aneurysm. (b) Angiogram of the abdominal aorta demonstrated a protrusion, which revealed a false aneurysm.

Fig. 2. (a) The aneurysmal wall showed an abrupt disruption of the medial elastic lamellae (original magnification $\times$ 5, Elastic van Gieson staining). (b) There were scattered foreign-body-type giant cells and aggregates of lymphocytes aggregated in the adventia of the aneurysm (original magnification $\times$ 100, haematoxylin and eosin staining).

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References


a pseudoaneurysm of the renal artery. Acupuncturists should be alert to these complications.

We suggest a direct spread from the infection through the previous acupuncture causing the aneurysmal formation of the aorta. On clinical grounds, the patient had no other trauma than the acupuncture and he had no history of Behçet’s disease or connective tissue diseases. The lymphocytes and giant cells suggest an inflammatory reaction against gut thread, although bacteria were not detected. Since such aneurysms are associated with a high mortality, the early diagnosis and treatment of this complication is important.3


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