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CASE REPORT

Vegetation in an ascending aortic graft: Three major complications in vascular fields – Case report☆

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KEYWORDS
Ascending aortic graft infection;
Large dimensions vegetation;
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Hemorrhagic stroke

Abstract The authors describe a rare case report of a septic embolism to a lower limb, a mycotic superior mesenteric artery aneurysm and a hemorrhagic stroke derived from a large mobile vegetation in an ascending aortic graft.

Infected ascending aortic grafts should be handled with a high level of suspicion, always bearing in mind that the survival of these patients depends largely on their physiological reserve, fast diagnosis and prompt medical or/and mainly used surgical treatment.

Review of the literature and clinical features of the pathology in question are also described and discussed.

PALAVRAS-CHAVE
Infecção protésica da aorta ascendente;
Vegetação de grandes dimensões;
Embolia séptica;
Aneurisma da artéria mesentérica superior;
Acidente vascular cerebral hemorrágico

Vegetação em prótese da aorta ascendente: três complicações *major* em territórios vasculares – caso clínico

Resumo Os autores descrevem um caso clínico raro de uma embolia séptica para um membro inferior, um aneurisma micótico da artéria mesentérica superior e um acidente vascular cerebral hemorrágico causados por uma grande vegetação móvel em um enxerto protésico da aorta ascendente.

Enxertos protésicos infectados da aorta ascendente, devem ser tratados com um alto grau de suspeição, tendo sempre em mente que a sobrevida destes doentes depende largamente da sua reserva fisiológica, diagnóstico rápido e pronto tratamento médico e/ou mais frequentemente usado tratamento cirúrgico.

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Uma revisão da literatura e das caracteristicas clínicas da patologia em questão são descritas e discutidas.

Introduction

Eradicating infections of ascending aortic graft remains a very demanding task that if not treated properly could lead to devastating consequences.

The authors present a clinical case of a large mobile vegetation in an ascending aortic graft that resulted in a septic embolism to a lower limb, a mycotic superior mesenteric artery aneurysm and a hemorrhagic stroke.

Case report

A 56-year-old male, former smoker, with arterial hypertension and an episode of acute myocardial infarction in 2004, was submitted to a cardio-thoracic surgery in the same year of the coronary event, in which a prosthetic aortic conduit (Dacron® graft) was inserted for correction of ascending aorta aneurysm.

After six years of surgery he initiated relapsing febrile episodes of unknown origin. The initial workup performed in other institutions in order to find the fever outbreak was meticulous (Hemo and urine cultures, viral serology, tumor markers, abdominal ultrasound, CT thoraco-abdomino-pelvic, transthoracic and transoesophageal echocardiogram, bone marrow cultures, bone scintigraphy, CT column, esophagogastroduodenoscopy and colonoscopy), but inconclusive.

A few weeks later, the patient was brought to our hospital complaining of symptoms of acute left limb ischemia after a febrile peak (T–40 °C). At physical exam, the left limb presented with femoral and popliteal pulses, but distal pulses were absent, he had no loss of motor function. The contralateral limb had all pulses present. The ECG excluded cardiac arrhythmia. He had denied claudication history and after a popliteal aneurysm had been ruled out, an angiography was conducted and embolus in the three distal arteries was demonstrated (Figs. 1 and 2).

A mechanic thrombo-embolectomy was performed by infra-popliteal approach, with immediate relief of the ischemic complaints (ankle-braquial index of 0.75).

Because of persistent fever of unknown origin a transesophageal echocardiography was performed which revealed a large, echogenic, oscillating vegetation (17 mm × 4 mm) implanted in the posterior wall of the ascending aorta Dacron® graft, 27 mm above the aortic valve plane (Fig. 3).

Blood and thrombus cultures (collected during the hospitalization and surgery) were always negative.

The patient was then transferred to the hospital center where he performed the cardio-thoracic surgery in 2004 and there he completed 4 weeks of intravenous treatment with vancomycin and 6 weeks with gentamicin.

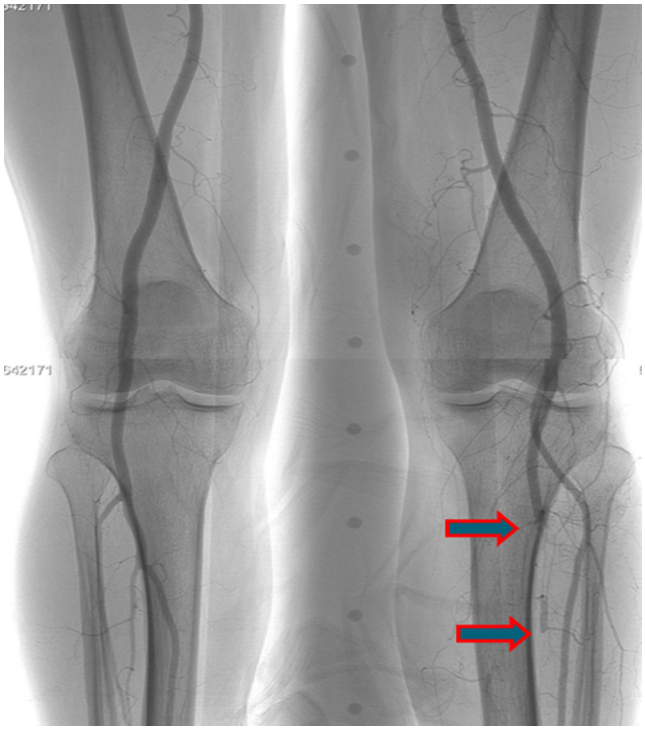

Figure 1 Angiography confirming embolus in the distal arteries.

A month later, he is re-admitted to our emergency department with a persistent, diffused abdominal pain and a saccular superior mesenteric artery aneurysm of 34 mm, located 9 cm distally from the origin of this vessel, was detected in the computed tomography angiography (CTA) (Fig. 4). Surgery was conducted immediately by means of simple ligation to exclude the aneurysm (Figs. 5 and 6). A small portion of the small bowel became ischemic, and a segmental enterectomy was carried out without delay during the same procedure. After treatment of a small abdominal wound infection, he was discharged from our hospital. Once again there was no growth of blood or aneurysm bacterial cultures.

One month after discharge, he returned with a spontaneous intracerebral hemorrhage (Fig. 7) (hemiparesis of the right upper limb, central facial paresis and dysarthria) and also a cellulites of the right upper limb.

After 3 months of intensive physiotherapy the patient recovered from his neurologic deficits.