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CASE REPORT

Rare presentation of ruptured syphilitic aortic aneurysm with pseudoaneurysm☆

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KEYWORDS
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Abstract We report the interesting case of a rare form of presentation of rupture of the ascending aorta with formation of a pseudoaneurysm, diagnosed following the development of a large mass on the surface of the chest over a period of about eight months. Serological tests were positive for syphilis. Echocardiography and computed tomography angiography were essential to confirm the diagnosis and therapeutic management.

Cardiovascular syphilis is a rare entity since the discovery of penicillin. Rupture of an aortic aneurysm with formation of a pseudoaneurysm is a potentially fatal complication.

The postoperative period was uneventful and the patient was discharged from hospital within days of surgery.

PALAVRAS-CHAVE
Aneurisma;
Pseudoaneurisma;
Massa torácica;
Sífilis

Rara apresentação de aneurisma sifilítico roto de aorta com pseudoaneurisma

Resumo Relata-se o interessante caso de uma rara forma de apresentação de rotura da aorta ascendente com formação de um pseudoaneurisma, diagnosticado por manifestar-se como uma grande massa tumoral na superfície do tórax com evolução clínica de, aproximadamente, oito meses. Provas sorológicas foram positivas para sífilis. Ecocardiografia e angiotomografia foram fundamentais na confirmação diagnóstica e orientação terapêutica.

Sífilis cardiovascular é uma entidade rara após a descoberta da penicilina. Dilatação aneurismática rota da aorta com formação de um pseudoaneurisma é uma complicação potencialmente fatal.

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O paciente evoluiu sem intercorrências no período pós-operatório, recebendo alta hospitalar dias após o procedimento cirúrgico.

Introduction

Aortic pseudoaneurysm is a serious and potentially fatal condition, characterized by accumulation of blood and connective tissue outside the vessel wall. It occurs following rupture of at least one of the layers of the aortic wall, which is contained by the other layers or by adjacent mediastinal structures, leading to the formation of an extraluminal aneurysmal sac that communicates with the true lumen through a narrow neck.

The authors describe the interesting case of a rare form of presentation of rupture of the ascending aorta with formation of a pseudoaneurysm, diagnosed following the development of a large mass on the surface of the chest over a period of about eight months. Echocardiography and computed tomography were essential to confirm the diagnosis and therapeutic management.

Case report

A 54-year-old man, white, sought medical assistance due to a growing mass on his chest over a period of around eight months, associated with non-radiating, throbbing dorsal thoracic pain and headache; the pain was initially mild, progressing to moderate, relieved by ibuprofen. He reported difficulty swallowing but no other symptoms, including chest trauma, acute intense pain or previous infection. He had stopped smoking and drinking alcohol (previously high daily intake) after the onset of symptoms. He was unaware of any comorbidities. On physical examination, the patient was in good general condition, eupneic, with normal color skin and mucosa; there was a large mass on the left anterior chest, around 15 cm in diameter and pulsatile on palpation (Figure 1). Heart rate, blood pressure and pulses were normal. There were no neurological changes. Cardiac auscultation was normal; pulmonary auscultation revealed reduced breath sounds in the left lung base.

Following admission, the patient was medicated with an oral beta-blocker (propranolol). A chest X-ray in posteroanterior view showed mediastinal enlargement and elevation of the base of the left hemithorax, suggestive of diaphragmatic eventration. The electrocardiogram was normal.

Transthoracic (Figure 1) and transesophageal echocardiography revealed aneurysmal dilatation of the distal portion of the ascending aorta and aortic arch, 93 mm at its widest point, and what appeared to be a loss of continuity in the aortic wall, consistent with rupture, with local blood flow contained by an extensive extraluminal area of heterogeneous echogenicity adjacent to the aortic wall (possibly mural thrombi), forming a pseudoaneurysm. One of the thrombi was impacted in the neck of the pseudoaneurysm, with a small flow identified by color mapping. The tubular ascending aorta presented distal dilatation (55 mm in diameter), while the other aortic segments showed normal flow and diameters. An image suggestive of an intramural hematoma, crescent-shaped and approximately 26 mm deep, was observed on the aortic arch.

Computed tomography angiography of the thorax (Figure 2) revealed a large aneurysmal lesion involving the ascending thoracic aorta and the aortic arch, measuring approximately 12 mm×93 mm and with significant enlargement of the anterosuperior mediastinum, together with signs of rupture as shown by leakage of its hypodense contents causing cystic swelling of the thorax. It also showed a mural thrombus, 24 mm thick. The aneurysm was causing significant compression of the pulmonary artery trunk, displacing it posteriorly.

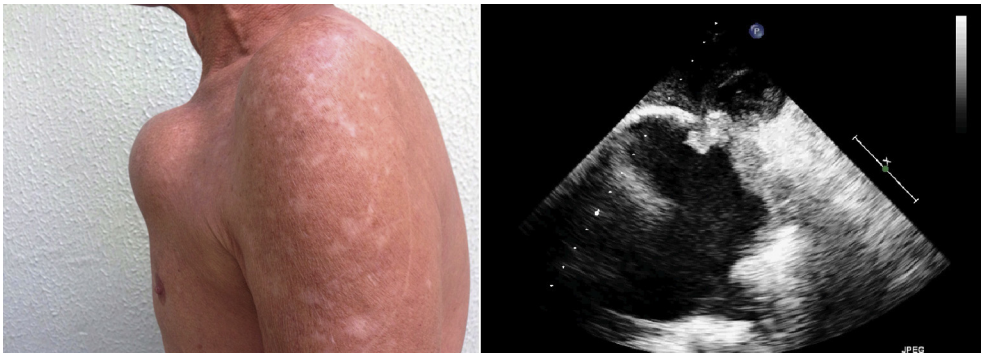

Figure 1 Left: mass on the anterior chest; right: transthoracic echocardiography, showing severe aneurysmal dilatation of the aortic arch and an extraluminal aneurysmal sac (pseudoaneurysm) with a narrow neck, with flow contained by what appears to be a thrombus.