

# APRESENTAÇÃO RARA DE ANEURISMA DE AORTA ABDOMINAL EM ROTURA

Mário Moreira, Luís Antunes, Joana Moreira, Óscar Gonçalves

Angiology and Vascular Surgery Department, Centro Hospitalar e Universitário de Coimbra, Coimbra, Portugal

\*Contacto Autor: mariodpmoreira@gmail.com

## Resumo

O aneurisma da aorta abdominal é uma doença que afecta 5-9% da população com mais de 65 anos. É mais comum em homens fumadores e em casos de história familiar de aneurisma da aorta. A maioria são assintomáticos. A rotura é a complicação mais frequente e fatal. A apresentação mais comum da rotura é a tríade clássica: dor lombar súbita e intensa, síncope/hipotensão e massa abdominal pulsátil. Contudo, apenas 25-50% dos casos se apresentam desta forma. O local de rotura parece influenciar o quadro clínico. Serve este caso para documentar uma apresentação clínica rara de uma patologia com morbi-mortalidade muito elevada. O conhecimento das diversas apresentações clínicas poderá levar ao diagnóstico e tratamento atempados, com impacto positivo na morbi-mortalidade do aneurisma da aorta abdominal em rotura.

## Abstract

### *Unusual presentation of ruptured abdominal aortic aneurysm*

*Abdominal aortic aneurysm affects 5-9% of the population over the age of 65 years; is more common in male smokers and in patients with a positive family history of aortic aneurysms. Most patients are asymptomatic; rupture is the most common and dreaded complication. The classical triad of back pain, hypotension and pulsatile mass is the most common presentation but is present in only 25–50% of patients. Clinical presentation seems dependent on rupture site. Our report illustrate a rare clinical presentation for a serious clinical condition. Knowledge of different presentations can lead to timely diagnosis and management and decrease in rupture related morbidity and mortality.*

## INTRODUCTION

Abdominal aortic aneurysm (AAA) affects 5–9% of the population over the age of 65 years. AAA is more common in male smokers and in patients with a positive family history of aortic aneurysms. Most patients are asymptomatic; rupture is the most dreaded complication because is one of the most fatal surgical emergencies. Even declining, overall estimated mortality rate is about 80%; postintervention (open or endovascular) mortality is about 40% in high volume centres. Rupture risk is primarily estimated using aortic maximum transverse diameter and fusiform aneurysm >54mm should be repaired in an otherwise healthy patient.<sup>1</sup> Regarding aneurysm morphology, the vast majority is fusiform; saccular aneurysms are rare (<5% of AAA) and natural progression and rupture risk are not well known although they seem prone to rupture at smaller diameters.<sup>2</sup> Different sites of rupture ascertain a

variety of clinical presentations. Anterior rupture into peritoneal cavity occurs in approximately 20% of patients and is often associated with rapid exsanguination and death before they reach the hospital. Rarely, rupture occurs into the abdominal veins or the bowel. Most ruptures occur into the retroperitoneal cavity (about 80%), leading to the classical triad of back pain, hypotension and a pulsatile mass; however, this triad is present in only 25–50% of patients. Abdominal pain is the most common sole presenting symptom, present in 80% of cases, but lacks specificity, occurring in several abdominal syndromes. Rupture in retroperitoneal cavity is often sealed temporarily, usually for hours but rarely may extend for days. This retroperitoneal hematoma and its compressive effects can result in a variety of misleading symptoms and signs.<sup>3</sup> Some reported presentations include lumbar spondylitis-like symptoms, lower limb neuropathy, obstructive jaundice, testicular ecchymosis and lower limb edema.

**CASE REPORT**

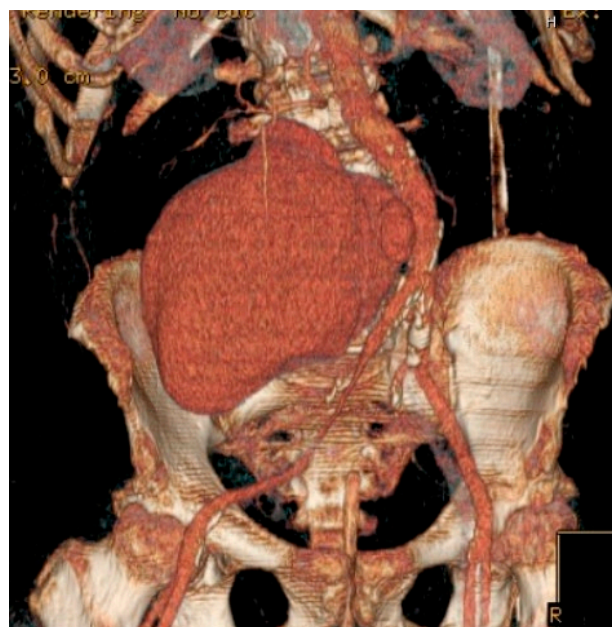
An 82-year-old man was admitted in the emergency department with worsening of chronic lower limb edema, primarily on the right side, for several days. Past medical history encompass heart failure, paraplegia after vertebro-medullary injury and chronic urinary catheter due to radiotherapy 10 years earlier for prostatic cancer. On examination, he was afebrile and haemodynamically stable; abdominal examination revealed a pulsatile mass right to the umbilicus; lower limb examination was remarkable for exuberant edema on the right side (Fig. 1); both femoral pulses palpable. Computed tomography (CT) showed a 16cm saccular infra-renal aortic aneurysm (Fig. 2 e 3), with contained rupture, causing compression of distal inferior vena cava, right common iliac artery and vein as well as right ureter; small thrombus on right common femoral vein was noticed.



**Figure 1** Patient with marked right lower limb swelling.



**Figure 2** Saccular abdominal aortic aneurysm with contained rupture.



**Figure 3** CT reconstruction showing aorta deviation and arterial compression.

Endovascular aneurysm exclusion was achieved using a 22x100mm tubular aortic stent graft (Valiant®). Patient was discharged 3 days after the surgery, with significant improvement of right limb edema. Blood cultures were negative;

creatinine values within the normal range during hospital admission. Despite not attending post discharge indicated medical appointment, national database access indicate patient death 22 months later due to a septic shock related

to left obstructive pyelonephritis. A CT was performed for this reason and showed sac shrinkage to 11cm with no contrast within and no apparent compression on surrounding structures; prosthetic infection was ruled out.

## DISCUSSION

Lower limb swelling is a common presentation to frontline clinicians and this presentation usually warrant investigating the possibility of deep vein thrombosis;<sup>4</sup> this case is a warning that is not the only important cause. AAA rupture initial misdiagnosis can reach 40% of cases,<sup>5</sup> being renal colic, myocardial infarction and diverticulitis the most common incorrect diagnoses. When diagnosis is delayed, mortality increases. Management of AAA causing compression of adjacent structures is usually by open surgery to achieve sac decompression; however, some reports indicate that endovascular exclusion can result in an immediate reduction in sac pressure<sup>6</sup> and symptom improvement<sup>7</sup> and we could observe it in our patient. Management of deep venous thrombosis in the setting of AAA rupture is not well established; in our case, considering the small size thrombus in common femoral vein, the patient condition and attributing limb edema primarily to venous compression, we decide not to prescribe anticoagulants and keep patient on anti-aggregation after discharge.

Although ruptured or symptomatic AAA is a serious condition not commonly seen by emergency physician, timely management is crucial to improve outcomes; our report alert to a rare presentation of a condition that can be rapidly fatal.

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