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Chronic back pain as the first symptom in the rupture of an abdominal aortic aneurism: presentation of 2 cases

Lumbalgia crónica como primer síntoma en la rotura de aneurisma aórtico abdominal: a propósito de 2 casos clínicos

Rosalía Martínez Pérez,* José Luis Marenco De La Fuente, Sergio Rodríguez Montero, and Carmen Escudero

Servicio de Reumatología, Hospital Universitario de Valme, Valme, Seville, Spain

Introduction

Abdominal aortic aneurysm[1] is a dangerous entity, with a prevalence of 2%-5% in the general population and mortality in case of rupture of 80%. Up to 91% of cases are accompanied by low back pain, so it is important to include abdominal aortic aneurysm as a differential diagnosis in chronic low back pain. There are no population screening diagnostic procedures for its prevention, and it is generally an incidental finding during the study of other diseases. We present 2 cases of chronic low back pain caused by underlying aneurysmal rupture.

Case reports

Case 1. The patient was a 54-year-old male, smoker, with a history of ischemic heart disease, arterial hypertension and dyslipidemia, without prior arteriopathy or chronic bronchitis. He had been studied a year earlier due to constitutional symptoms, anaemia and thrombocytopenia. Abdominal CT scan revealed splenomegaly and lymphadenopathy. A liver biopsy showed periportal granulomas and focal centrilobular necrosis. Smear testing was negative. A year later, the patient attended consultation due to a disabling low back pain of 8 months' evolution. Lasegue sign was negative, with strength, reflexes, sensation and sphincter function preserved. On admission, he presented hypotension (100/60 mm Hg) and a haematocrit drop; the consequent nuclear resonance examination revealed aortic aneurysm, with a dissection of 8cm below the left renal artery and at 8 mm caudal to the right renal artery. Laboratory tests highlighted ACE of 101 IU/ml (No. value), and hypocalcaemia (10.9 mg/dl). The treatment was prosthetics and bifemoral bypass. He required admission to the ICU, with favourable haemodynamic evolution. Treatment with prednisone (60 mg/day) was started due to a suspected sarcoidosis with secondary abdominal aneurysm, with a favourable clinical response.

Case 2. The patient was a 58 year-old-male, a smoker, with a history of arterial hypertension, severe chronic peripheral arterial disease with left forefoot amputation and ischemic heart disease (stent in circumflex artery). He was admitted due to low back pain with inflammatory characteristics (negative Lasegue sign and strength, reflexes, sensitivity and sphincter function preserved) and initially treated with diclofenac, metamizole and tramadol, with no clinical improvement. The patient also reported inguinal irradiation of 6 months' duration, so he was admitted to urology. After ruling out a urological disease, he was referred to rheumatology for study. A decrease in haemoglobin (from 11.6 to 8.6 mg/dl) and hypotension (100/50 mm Hg) were observed. Suspicion of an underlying vascular disease led to an abdominal CT scan being performed, which showed an infrarenal abdominal aortic pseudoaneurysm with signs of recent bleeding (Figure). The treatment prescribed was aortoiliac endoprosthesis, as well as iliofemoral and femorofemoral bypass in the left common iliac artery. Despite administration of 10 blood concentrates, infusion of norepinephrine and fluid resuscitation, haemodynamic instability and renal metabolic deterioration led to death.

Discussion

Abdominal aortic aneurysms can cause chronic back pain with or without radiculopathy or myelopathy. Radicular symptoms are caused by nerve compression of the aneurysm, especially between L5 and S1.[2] Symptoms last from 2 weeks to 2 years[3]; in our 2 cases, symptom duration was 7±1.4 months.

We have found only 16 cases of abdominal aortic aneurysm associated with chronic low back pain described in the literature

*Corresponding author.
E-mail address: rosalia-82@hotmail.com (R. Martínez Pérez).

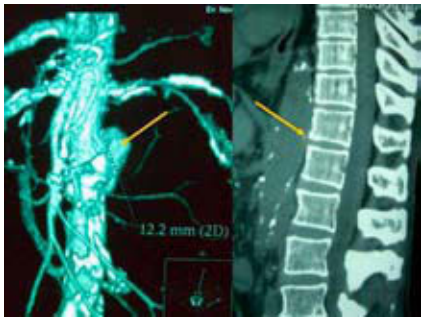

Figure. Clinical case 2. On the left, there is a two-dimensional reconstruction of the abdominal aortic aneurysm presented by the patient, through a CT scan. On the right, the vertebral erosion caused by the aneurysm itself on the vertebral bodies can be seen.

between 1976-2000.[4] Its rarity justifies our interest in reviewing this pathology. Abdominal aortic aneurysm[5] should be considered in the differential diagnosis of chronic low back pain, especially in smokers, males over 55 years (in our two cases, the mean age was 56±2.8 years), patients with hypertension and COPD, with its prevalence being 3%-5%. The risk of rupture is less than 2 if the aneurysms are smaller than 5 cm, 5%-10% between 5-6 cm and 20% if they are larger than 7 cm[6] (in our case, the mean was 8 cm). The classic triad of symptoms includes hypotension, low back pain (91%)[7] and pulsating abdominal mass (50%). Although the clinical manifestations alone lead to diagnosis in 38% of cases, radiological techniques are needed in the remaining cases. Ultrasound would be the diagnostic method of choice (with 95% sensitivity and 100% specificity), and it should be carried out along with a CT (for studying pre- and paravertebral pathologies[8]). Vertebral erosion[9] has been described as a common radiographic sign (25%)[9] in these patients, probably caused by the direct inflammatory component originated by the aneurysm.[10] This factor may also contribute to chronic low back pain.

Conclusion

We feel that chronic low back pain accompanied by warning signs (hypotension, low back pain and a pulsating abdominal mass) should require a clinical and radiological study, given that aortic aneurysm is considered within the differential diagnosis.

Conflict of interests

The authors declare no conflict of interests.

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