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CASE REPORT

Saccular Abdominal Aortic Aneurysm and Kidney Cancer: Simultaneous Surgical Repair

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Introduction

Although the saccular aneurysms of the thoracic aorta are often reported, their localisation in the abdominal aorta is less common and the causes are unusual and different: medionecrosis,[1] bacterial infection,[2] penetrating ulcers of the aorta,[3] atherosclerosis,[4] as being congenital in young children.[5]

Since the occurrence of this kind of abdominal aneurysm is rare and the diagnosis of our reported case was misunderstood because of the preoperative CT scan and the coexistence of a cancer of the left kidney, we report our experience in the simultaneous management of both pathologies, stressing the need for a deeper preoperative diagnostic examination.

Case Report

A 76-year-old white male with a previous surgical intervention for retroperitoneal lymphangioma (extending from the pancreas to the left kidney) which had been discovered by an occasional echography 3 years ago, was affected by abdominal aortic aneurysm and was hospitalised in our Service. He was transferred from the Urology Department because of a cancer of the left kidney and was scheduled for combined vascular and urological surgery.

The clinical examination showed a pulsatile abdominal mass in the upper abdomen with extension to the right side. The patient had been aware of an abdominal aneurysm for many years. He was monitored echographically and did not report any abdominal trauma. At the beginning of 1999 he underwent a CT scan, which showed the AAA (53 mm diameter) and revealed a mass (5 cm) on the upper part of the left kidney. These results were confirmed by echography, with a diagnosis of right kinking of the abdominal aorta, right anterolateral ectasia (36.6×46.3 mm) of this vessel, and cancer of the left kidney.

Surgical intervention: a midline xifopubic incision was performed. In the retroperitoneal space fibrous tissue surrounded an aortic mass, which intersected the anterior aortic wall. After using the usual technique to isolate the upper aorta under the renal arteries and the common iliac arteries, a saccular aortic aneurysm arising from the anterior wall was observed. The aneurysm (diameter about 5 cm) was treated by substituting the aorta with a preclotted aortic graft using end-to-end sutures. Both the left renal vein and the artery were isolated, and total left nephrectomy was performed.

Results and Discussion

The postoperative period was normal and the patient left the hospital 8 days later. Histological examination showed a real arterial wall of the aneurysm and an

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adenocarcinoma of the kidney. The clinical and ecographic controls, 1 month later, were normal with complete recovery of the patient.

Saccular abdominal aortic aneurysms are rare and can be classified into one to three types: solitary, adjacent to fusiform AAA and independent of fusiform AAA. Diagnosis and surgical techniques are complicated when the saccular AAA coexists with a fusiform AAA and is located in the AAA neck.

In this case two aspects seem to be peculiar: (1) the lack of evidence of an isolated saccular aneurysm on the CT scan, which was interpreted as a fusiform AAA; (2) the simultaneously successful nephrectomy.

On the one hand we were led to suspect an unusual aetiology, which was not confirmed by bacteriological, pathological and histological results: thus, we would suggest an atherosclerotic cause. On the other hand, the surgical procedure was no different from the usual one for fusiform aneurysms. On this basis we think that a spiral CT would be more helpful in this case.

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