An uncommon cause of malignant hypertension

Une cause inhabituelle d’HTA maligne

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Received 15 December 2011; received in revised form 21 December 2011; accepted 28 December 2011
Available online 12 July 2012

Introduction

A 62-year-old woman was referred to the cardiology department for evaluation of malignant arterial hypertension refractory to medical management. Remarkable in her medical history were: cigarette smoking over the past 30 years; hyperlipidaemia; uncontrolled arterial hypertension over the past 5 years and bilateral leg intermittent claudication. On admission, blood pressure was 220/140 mmHg. Pulses were absent in and below both femoral arteries. Nevertheless, no signs of acute lower extremity ischaemia were noted. The patient had normal renal function, with creatininaemia of 1.04 mg/dL. Examination of the fundi showed papilloedema and haemorrhage. Computed tomography angiography (CTA) showed complete occlusion of the aorta from the level of renal arteries to both the common iliac arteries, associated with complete occlusion of the right renal artery (Fig. 1). Lower limb and digestive perfusion was assured by an extended collateral

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http://dx.doi.org/10.1016/j.acvd.2011.12.009
Coronal curvilinear reformatted computed tomography angiography reveals extended thrombosis of the abdominal aorta (white arrow), with complete occlusion of the right renal artery (hatched arrow).

vascular network (Fig. 2). The patient was treated with aortobifemoral bypass grafting and right nephrectomy. The postoperative course was uneventful and her blood pressure remained well controlled during follow-up.

Here we report a clinical case of total occlusion of the abdominal aorta, presenting with malignant arterial hypertension. Total occlusion of the abdominal aorta is unusual and potentially dangerous. It is due to the proximal propagation of an occlusive distal aortic thrombus in patients with advanced atherosclerotic occlusive disease and can cause severe ischaemic manifestations in the lower extremities, spinal cord, intestine and kidney, depending on the site of obstruction. Good collaterals develop in most cases, which may maintain adequate basal perfusion of the intestines and lower extremities for a long time. CTA allows assessment of the vasculature anatomy, the extension of aortic thrombus and the status of the distal circulation and visceral circulation. Moreover, it helps to customize optimal management in each patient. Surgery is the treatment of choice for patients with diffuse disease involving the aorta and both iliac arteries.

Figure 2. A coronal volume-rendered image demonstrates vascular occlusion of the aorta and of the right renal, iliac and inferior mesenteric arteries but also clearly shows the development of an extensive collateral vasculature: the common femoral arteries are refilled through the collateral pathways of the inferior epigastric arteries (red arrows); the inferior mesenteric artery is refilled through Riolan’s arch (white arrow), arising from the superior mesenteric artery.

Disclosure of interest
The authors declare that they have no conflicts of interest concerning this article.