SHORT REPORT

Ruptured Solitary Iliac Artery Aneurysm

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Introduction

Solitary iliac artery aneurysms (SIAA) are rare. Most of them are detected during routine evaluation for another medical problem and are usually repaired electively.1 In case of rupture the symptoms are often non-specific and mortality rates are high. We present a case in which a ruptured solitary iliac artery aneurysm with non-specific symptoms was discovered after laparotomy.

Report

A 50-year-old man with right sided abdominal pain was referred to our emergency department. On clinical examination there was right lower quadrant peritonitis with no palpable mass. Body temperature was 37.9°C and the patient had a leukocytosis of 18.1 (10⁹/l). Acute appendicitis was suspected and a laparoscopy was performed. The view was poor and a laparotomy was performed. There was a normal appendix and a retroperitoneal hematoma on the lateral side of the cecum. There were no palpable aneurysms. Because the patient was hemodynamically stable the operation was terminated with a diagnosis of spontaneous hemorrhage into the psoas muscle. Postoperative CT showed a right iliac artery aneurysm with a diameter of 3.2 cm and a retroperitoneal hematoma (Fig. 1). The diameter of the left iliac artery was 2.5 cm; there was no aneurismal dilation of the aorta. A second laparotomy was performed. The right common iliac artery was clamped and the aneurysm was opened. This revealed a large dorso-lateral tear contained by the iliac vein (Fig. 2). A 10 mm interposition Dacron graft (Meadox Hemashield®, Boston Scientific, USA) was used to exclude the aneurysm. The internal iliac artery was ligated. The patient made a good recovery.

Discussion

A SIAA is defined as a twofold increase in size of the iliac artery without a coexisting aneurysm at another location.2 SIAAs are rare with a prevalence of 0.03% in autopsy series.2,3 SIAAs are often asymptomatic and physical examination is difficult because of their extension into the pelvis. As with aortic aneurysms, size seems to be the most important determinant for rupture of iliac aneurysms.2 Patients with isolated iliac artery aneurysms larger than 4 cm in diameter should undergo elective repair.1

Open surgical repair with an interposition graft is the treatment of choice. The first reports on endovascular repair of SIAA’s describe good medium term results.4

Our patient presented with symptoms resembling acute appendicitis. During laparotomy, a retroperitoneal hematoma without a palpable aneurysm was found. Because the patient was hemodynamically stable it was decided to carry out further radiological investigations. A computed tomography revealed a right-sided SIAA and a retroperitoneal hematoma. Because we were not 100% sure of the diagnosis and

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Fig. 1. Computed tomography showed a right common iliac artery aneurysm with a diameter of 3.2 cm and a retroperitoneal hematoma.

Fig. 2. The aneurysm of the right common iliac artery was opened. This revealed a large postero-lateral tear contained by the iliac vein.
because of the patient's young age we decided in favor of an open exploration over an endovascular reconstruction.

**References**


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