Iliac arterial pseudoaneurysm
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Section: Interventional radiology
Case Type: Clinical Cases
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Patient: 58 years, male

Clinical History:
Iatrogenic pseudoaneurysm of right common iliac artery

Imaging Findings:
Patient presented with diffuse right lower abdominal pain. He underwent emergency surgery for acute appendicitis with perityphlitic abscess 6 months earlier. Color-coded ultrasound revealed a partially perfused large mass in the lower right abdomen. Angiography proved a large pseudoaneurysm due to perforation of the right common iliac artery about 1 cm proximal to the orifice of the internal iliac artery probably due to perforation during surgery (Fig. 1).

Discussion:
After retrograde femoral puncture, two balloon-expandable stent grafts covered by ePTFE (Jomed Inc., Munich) were mounted on an 8 mm balloon each and placed across the perforation (Fig. 2a). Two stents were used because after placement of a first implant, there was still some extravasation into the pseudoaneurysm so it was considered to be appropriate to place a second device. Embolization of internal iliac artery was considered unnecessary because the hypogastric artery was not involved in the site of leakage. Coverage of the orifice was possible because the contralateral internal iliac artery was widely patent. After gradual expansion of the grafts by repeat inflation of the 8 mm balloon for 45 seconds, the perforation was sealed (Fig. 2b). The next day, surgical revision via a limited retroperitoneal access was performed to evacuate the large hematoma in order to avoid infection. The patient was discharged one week later. The patient was followed for 6 months with no evidence of graft restenosis or occlusion. Percutaneous exclusion of iliac pseudoaneurysms seems to be a valuable treatment in those cases. Balloon expandable grafts of the type used seem to have some advantages since they can be dilated from 6 to 12 mm in diameter which helps to have only few grafts on stock but to be able to treat different types of lesions and diameters.

Differential Diagnosis List: Stent graft exclusion of an iatrogenic iliac pseudoaneurysm

Final Diagnosis: Stent graft exclusion of an iatrogenic iliac pseudoaneurysm

References:
Radiology 198(2):473-80. (PMID: 8596852)
Description: Large iatrogenic pseudoaneurysm from perforation of right common iliac artery Origin:
Figure 2

Description: First stent graft mounted on a balloon partially expanded

Origin:
**Description:** After gradual balloon expansion the aneurysm is excluded after placement of two devices

**Origin:**