Second episode of late AAA rupture treated in the same patient endovascularly after a primary EVAR procedure

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Introduction: Rupture after EVAR is rare although it is associated with a high long-term mortality. However, re-interventions after EVAR are common. We report a rare case of two episodes of late aneurysm rupture treated in the same patient endovascularly after a primary EVAR procedure.

Case: An 89-year-old male patient suffering from severe comorbidities presented with a prescyncope episode, diffuse abdominal pain started almost five hours ago, and an extended subcutaneous left trunk hematoma. His medical history revealed an AAA treated with EVAR 14 years ago as well as a rupture due to a type Ia Endoleak treated almost 10 years ago, by placing a Palmaz balloon expandable stent at the aneurysm neck and a bare metal stent inside the right renal artery due to threatening thrombus at the orifice of the artery. The computed tomography angiography (CTA) revealed a rupture (black arrows; A,C) due to late type Ib endoleak (white arrows; B,C). The patient underwent an emergency endovascular repair including the placement of two limb extensions that extended up to the right external iliac artery. The postoperative course was optimal, and the patient remains asymptomatic after one year. The CTA imaging after one year showed a satisfactory position of the graft without any obvious endoleak (D).

Conclusions: Late rupture due to endoleak could present even in cases already treated for endoleak or rupture after a primary EVAR. Endovascular techniques show high efficacy and low mortality risk in high surgical risk patients although strict long-term follow-up protocols are essential after repair in order to prevent late complications.