

# Importance of individualized follow-up stratified by type of implanted device for patients post standard EVAR for Abdominal Aortic Aneurysm

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## Introduction and Objective

Within the established method of endovascular aneurysm repair long-term results and device durability are problematic in some devices, with FDA warnings issued for AAA treatment using specific devices. For the Endologix AFX system component separation is a specific complication with the risk of acute AAA rupture.



## Methods

All patients who underwent standard EVAR using an Endologix AFX system between October 2015 and September 2022 were actively recalled and underwent physical examination, plain abdominal X-ray and CT Angiography.

## Results

Out of 556 patients with AAA-repair 233 patients underwent EVAR. The 2 component Endologix AFX™ stent graft was used in 26 patients. No intra- or perioperative mortality occurred. However, 11 patients (42%) died after median follow-up of 23 months (range 1-49 months), of these one patient post 49 months due to component dislocation and confirmed AAA rupture. 3 patients are lost to follow-up.

Median survival in the 12 patients alive is 54 months. In 4 patients the AAA is shrinking, in 4 patients stable but not shrinking, in 3 patients growing under surveillance (Fig. 3). Component separation was found in 1 patient (Fig. 1) treated successfully by relining 68 months post primary implantation. 15 of the 26 patients did not adhere to the given follow-up schedule and did not present for the appointments scheduled (Fig. 2).

## Conclusions

Life-long follow-up post EVAR is important. Follow-up requires computed tomography controls if aneurysm growth is suspected or plain abdominal x-ray for component migration due to artefacts of the stent graft in magnetic resonance. A strategy needs to be developed to ensure that patients follow the appointments and radiographic controls. A device-specific follow-up plan is required as some implants show specific risks during long-term treatment. According implementation in AAA treatment guidelines should be considered.

