Relining of Endologix AFX endograft for type Ib endoleak due to secondary right common iliac artery aneurysm

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Technical considerations

Intrastent diameter analysis

A = R x R x \pi

Relining simulation

Proximal “D shape” remodeling and areas analysis

A = 11.5 \times 11.5 \times \pi = 415.3 \text{ mm}^2

A_1 + A_2 = 2 (8 \times 8 \times \pi) = 401.9 \text{ mm}^2

Figure 1: Case Report
An 84-year-old female patient came to our attention for abdominal pain. In January 2015 she had undergone EVAR with Endologix AFX System (25 mm) extended proximally with a Vela aortic extension (28 mm) and distally with a left iliac extension (20 mm). The CT scan performed at admission evidenced right type Ib endoleak. The diameter of the right common iliac artery (CIA) was 18 mm.

Figure 2: Procedure images
a) Selective angiogram of the right CIA
b) Aortic cuff deployment (PXA230300 Excluder, Gore, Phoenix, AZ)
c) Relining with two iliac extensions (PLC201000 R, PXC141400 L, Gore)
d) Final angiogram showing the absence of early endoleaks

Figure 3: CTA one month after the relining

Take home message

The continuous development of different devices sets new challenges for the management of their complications. An adequate knowledge of their different features is essential.

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