Endovascular Treatment Of Type IA Endoleak

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BACKGROUND :

Abdominal aortic stenting is a standardized procedure for the treatment of aortic aneurysms at that level (AAA). Complications of the procedure are rare, but secondary interventions are often necessary to maintain successful AAA exclusion. We present a case of a patient who underwent successful endovascular treatment of a type IA endoleak of endovascular aortic aneurysm repair (EVAR) previously treated 10 years ago.

METHODS :

89-year-old men was admitted in another hospital with abdominal pain. He was treated of an AAA with EVAR 10 years ago. He had a bifurcated endoprothesis implanted. The patient was annually clinical examination and the proper position of device was confirmed at each annual follow-up, with alternately angio computed tomography (angio CT) and abdominal echo-Doppler.The patient went to the hospital emergency room with abdominal pain. He had low blood pressure and mucocutaneus pallor. The angio-CT showed a type IA endoleak, with contrast in the aneurysm sac. The patient was referred to our center. There was no evidence of distal device migration with respect to the renal arteries; however, the neck dilation resulted in a conformational change that made it possible the endoleak. The initial solution was cover more neck resulted in coverage both renal arteries using the chimney technique.

Figure 1. Initial endoleak image

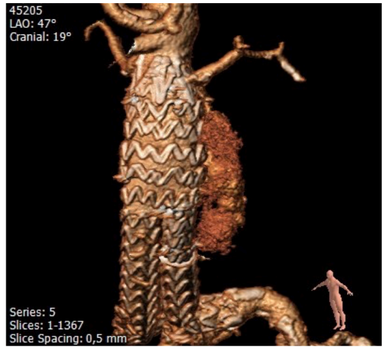

Figure 2. Initial endoleak image

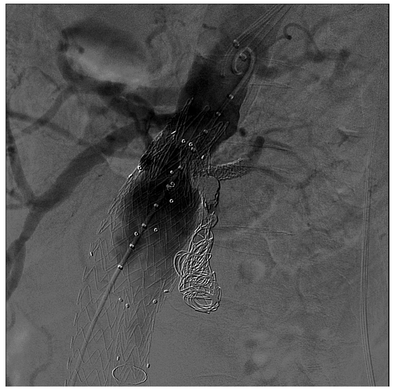

Figure 3. Endoleak after chimney technique

Figure 4. The endoleak disappears after coils and Onyx

We used a new endograft; Endurant II (Medtronic) and two E-ventus stent graft right renal artery and one E-ventus for left renal artery. After this, the patient continued with the leak. So that, we decided embolized the aneurysm sac using initially two coils and thrombin. Despiste this, he was continued with endoleak. Then, we used the artificial embolization device, Onyx (Medtronic). Completion angiogram demonstrated successful aneurysm exclusion.

RESULTS :

After the intervention, the patient went to the postoperative care unit, and the pain and symptoms disappeared. A computerized tomography control was performed after a few days, showing no existence of endoleak. The patient was discharged 6 days after the intervention, and remains asymptomatic after more than 3 months of follow-up

CONCLUSIONS :

This is a complex case of type IA endoleak resolution. The initial approach was the chimney technique, but it was not enough. A complementary technique was necessary, using embolization with Onyx. In these cases, it is advisable to know several procedures that allow complex problems to be solved.