Catheterization of the Lumbar Artery via the Superior Mesenteric Artery During Type 2 Endoleak Treatment

Tip 2 Endoleak Tedavisi Sırasında Superior Mezenterik Arter Yoluyla Lumbar Arter Kateterizasyonu

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A 72-year-old man with an infrarenal aortic aneurysm was successfully treated with a Talent stent graft 39 months ago. The aneurysm sac size increased approximately 2 mm on a computed tomography (CT) angiogram recently, and type 2 endoleak was diagnosed. A CT angiogram demonstrated lumbar artery and inferior mesenteric artery (IMA) involvement.

We planned to treat the type 2 endoleak via the superior mesenteric artery (SMA) to the IMA approach. A 6-F Ansel sheath and a 5-F Berenstein catheter were placed at the origin of the SMA. Then, an Echelon microcatheter was advanced at the origin of the 3rd lumbar artery via the arc of Riolan, IMA, and aneurysm sac, and the type 2 endoleak was identified.

Embolization of the lumbar artery origin and the aneurysm sac was performed with eight Concerto detachable coils with sizes between 3-6 mm. Then, embolization of the aneurysm sac and at the origin of the IMA was performed with four Cosmos detachable coils with sizes between 6-10 mm. Follow-up SMA angiograms after the completion of the procedure and after a month demonstrated successful embolization without any complications.

We are presenting this case because type 2 endoleak treatments with IMA embolization via the SMA are rare but

Figure 1. The CT angiogram showed contrast filling in the aneurysm sac outside the aortoiliac stent.

Figure 2. (A) Angiography confirmed back filling of the aneurysm sac (white arrows), and (B) a type 2 endoleak (black arrows) was found at the origin of the 3rd lumbar artery.
not new, and it is not a simple procedure [1]. In particular, passing the Riolan arc with the microcatheter is hard because of its angled nature. Recently available low-profile devices are allowing further progress with lumbar artery access and successful embolization.

References