

Embolization of an Internal Iliac Artery Aneurysm

BY DAVID L. SMOGER, MD

An 85-year-old man presented to the emergency department complaining of diffuse abdominal pain. After appropriate workup, a contrast-enhanced CT abdomen/pelvis scan showed a distal esophageal tear. Figure 1 shows an incidental finding of a 7.4-cm X 6.9-cm right internal iliac artery aneurysm. The patient was admitted to the hospital for management of his distal esophageal tear and follow-up with another vascular service for management of the aneurysm. Before presenting to the interventional radiology department, the patient was treated with a covered stent across the origin of the internal iliac artery. Approximately 1 month later, a follow-up CT angiogram of the abdomen/pelvis showed an interval enlargement of the aneurysm, which had grown to 7.9 cm X 7.4 cm, with some increased mural thrombus (Figure 2). The sac was being backfed by the obturator artery.

PROCEDURE DESCRIPTION

Under ultrasound guidance, a 5-F needle/sheath system was used to percutaneously access the aneurysm sac via the right anterior pelvis. Once the sheath was confirmed to be in place, a diagnostic angiogram was obtained (Figure 3). Exchange was made for a 5-F, Berenstein-shape Imager™ Angiographic Catheter. Eight 0.035-inch Interlock™ Coils were deployed within the sac until no further contrast flow was demonstrated (Figure 4).

DISCUSSION

This case illustrates the concept of closing the “front door” as well as the “back door.” The covered stent closed the “front door” (origin of the internal iliac artery), but in the face of a contributing obturator artery, the “back door” was left open, allowing for continued, pressurized growth of the aneurysm sac. Because access



Figure 1. A 7.4-cm X 6.9-cm aneurysm in the right internal iliac artery.



Figure 2. A follow-up CT angiogram of the abdomen/pelvis approximately 1 month later showing interval enlargement of the aneurysm, now 7.9 cm X 7.4 cm, with some increased mural thrombus.

Results from case studies are not necessarily predictive of results in other cases. Results in other cases may vary.



Figure 3. The initial angiogram after the sheath was confirmed to be in place.

to the sac via the traditional endovascular method was excluded by the presence of a covered stent, percutaneous access was successfully employed. The use of long, detachable Interlock™ Coils allowed for precise and quick deployment and obviated the use of many pushable coils in an aneurysm of this size. This decreased procedure time, procedural cost, and radiation exposure to both the patient and the operator. ■

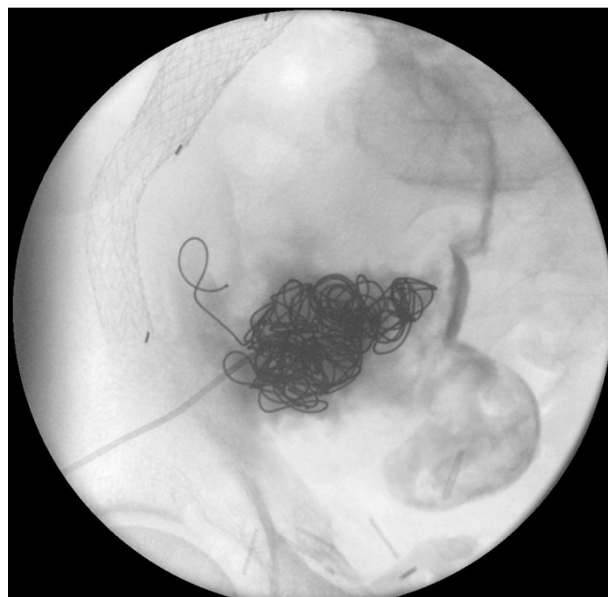


Figure 4. Eight 0.035-inch Interlock™ Coils were deployed within the sac until no further contrast flow was demonstrated.

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