Idiopathic radial artery true aneurysm

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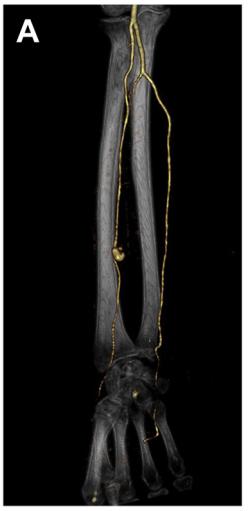
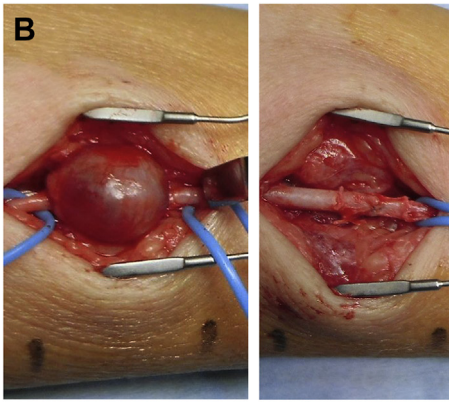
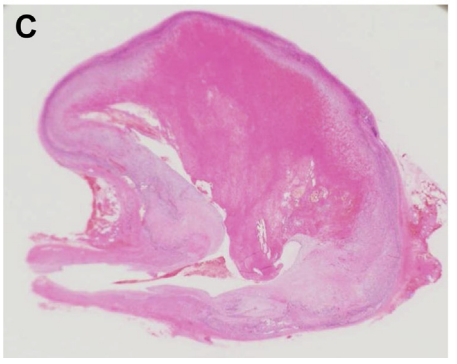
A 67-year-old woman presented with an 8-mm-diameter pulsatile mass in her right forearm. The mass had been present for a year and has increased in size. She had a negative relevant medical history and no history of trauma, intervention, or venipuncture on the right arm. She did not complain of pain, numbness, or functional deficit of the arm or hand. Computed tomography angiography revealed a saccular aneurysm in the middle portion of the right radial artery (RA), and the aneurysm was filled with thrombus (*A*/Cover). Computed tomography angiography demonstrated no aneurysmal change in the aorta and the iliac or visceral arteries.

A surgical repair was indicated for the aneurysm because the patient recently noted an increase in the size. We made a longitudinal skin incision above the aneurysm. The aneurysm was markedly eccentric in shape; however, the arterial wall structure in the opposite wall of the aneurysm seemed normal (*B*). After dissection, a 15-mm segment of the RA with the saccular aneurysm was resected. The RA was simply reconstructed by end-to-end anastomosis. The distal perfusion of the anastomosis was satisfactory; there was a palpable radial pulse distal to the reconstruction, and the artery had forward flow. She was discharged 3 days after surgery.

Pathologic examination revealed the three-layer structure of the saccular aneurysmal wall, indicating a true aneurysm (*C*). Ultrasound examination 4 months after surgery confirmed forward flow in the RA. The patient's consent to publish the case report was obtained.







DISCUSSION

RA aneurysm is an uncommon disease. Most RA aneurysms are pseudoaneurysms and located in the wrist area because those are usually caused by catheter-related iatrogenic trauma. Pseudoaneurysms or true RA aneurysms in the anatomic snuff box have also been reported, and infection, trauma, idiopathic conditions, and other systemic disease are causes of those aneurysms.[1] Fibromuscular dysplasia is also reported to be a cause of aneurysm of medium-size arteries with specific histologic degeneration.[2] The patient we describe here had a true saccular aneurysm located in the middle portion of the RA; this presentation is extremity rare.

Rupture of RA aneurysm has been rarely reported.[3] However, RA aneurysm should be treated because of the risk of distal thromboembolic events, hand ischemia, and nerve compression symptoms.[1]

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