Hypothenar syndrome

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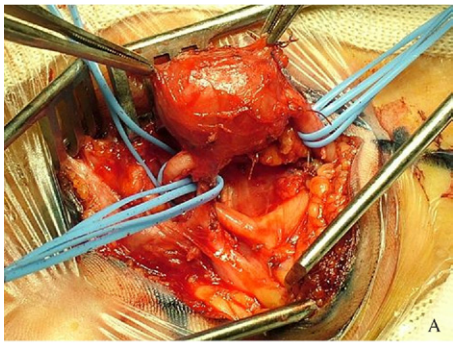
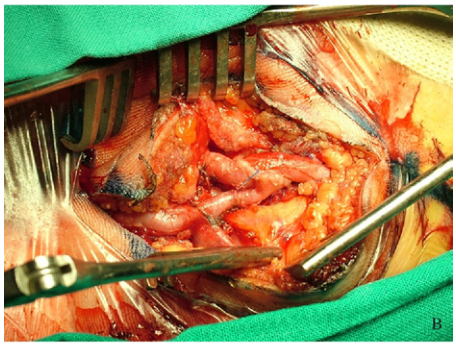
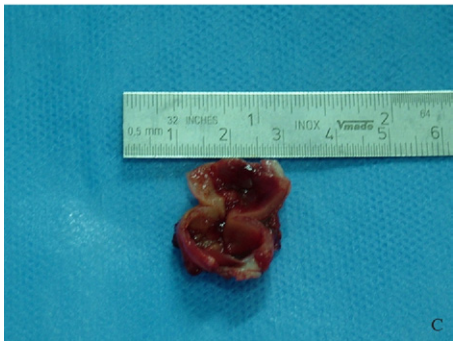
A 55-year-old man with an asymptomatic pulsatile right hypothenar mass was found on computer tomography scan to have a 3-cm diameter, saccular aneurysm of the terminal cubital artery (Cover). For many years, he had been working as an electrician using heavy cable-cutting scissors several hours per day. As seen during the operation, the aneurysm originated from the junction between the distal cubital artery and the palmar arch, and the cubital nerve was identified and respected (*A*). The aneurysm was resected, and an end-to-end anastomosis between the cubital artery and the palmar arch was performed, sparing a branch to the fifth finger (*B*). The resected aneurysm was lined with thrombus (*C*). The postoperative course was uneventful. The patient is doing well with a patent palmar arch at Doppler ultrasound scan, at 12-month follow-up. He quit his former job and is currently working as a clerk.







DISCUSSION

Hypothenar hammer syndrome is a rare condition consisting of finger ischemia due either to embolization from an aneurysm or thrombosis of the distal ulnar artery.[1] The etiology is recognized in repetitive trauma of the hypothenar region due to striking objects with the heel of the hands, where the cubital artery courses around the hook of the hamate bone, emerging from the Guyon's canal. Repetitive traumas are usually due to occupational or recreational activity and act on an artery with pre-existing fibrodysplasia.[2] Aneurysms should be resected, in order to prevent distal embolization. Arterial reconstruction with vein grafting or end-to-end anastomosis is advisable in order to preserve the palmar arch after aneurysmectomy or in case of arterial thrombosis. When digital embolization has occurred, thrombolysis might be useful.

REFERENCES

1. Conn J Jr, Bergan JJ, Bell JL. Hypothenar hammer syndrome: posttraumatic digital ischemia. Surgery 1970;68:1122-8.
2. Ferris BL, Taylor LM Jr, Oyama K, McLafferty RB, Edwards JM, Moneta GL, et al. Hypothenar hammer syndrome: proposed etiology. J Vasc Surg 2000;31(1 Pt 1):104-13.

Submitted Nov 3, 2010; accepted Dec 2, 2010.

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Competition of interest: none. (e-mail: giulio.illuminati@uniroma1.it).
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J Vasc Surg 2011;54:1816
0741-5214/$36.00

doi:10.1016/j.jvs.2010.12.029