

Ulnar artery aneurysm and hypothenar hammer syndrome

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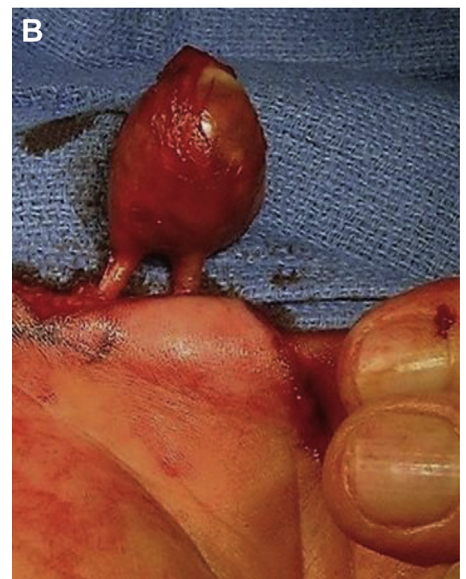
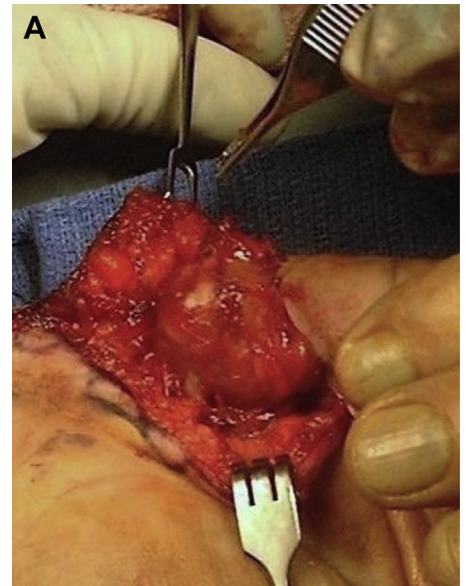
A 48-year-old healthy man with no underlying medical history, who worked as a butcher for 20 years, presented with pain in his right wrist and a pulsatile mass with numbness and coolness in his fifth finger. There was good perfusion to the hand and fingertips except for a pale, mildly tender right fifth finger. Allen test result was normal. A pulsatile 1.8-cm mass was noted in the distal ulnar artery at the wrist. Duplex ultrasound documented an ulnar aneurysm with patent inflow and outflow and minimal thrombus. The radial artery as well as the palmar arch was widely patent. Preoperatively, the fifth finger ischemia reversed and did not necessitate thrombolysis. After exposure and mobilization (A and B), primary resection and end-to-end anastomosis were performed. The patient maintained excellent perfusion to the hand and good healing with no further complications. The patient consented to the publication of his case.

Ulnar artery aneurysms are a vascular anomaly related to vascular overuse syndrome, a condition known as hypothenar hammer syndrome (HHS). Repetitive striking of the palmar portion of the ulnar artery has been known to cause HHS. This motion is usually associated with sports or occupations that require the constant striking of the heel of the hand. HHS was initially described by Von Rosen in 1934 and named by Conn in 1970.^{1,2} With as few as 150 reported cases, ulnar artery aneurysms are clearly infrequent.^{3,4} In 1972, the reported prevalence rate in a population of workers in mechanical workshops was 14%.^{5,6} In 2006, a large cohort study revealed the incidence rate for HHS to be 1.6%.⁷

Symptoms of HHS include ischemia and pain in the digits. Methods of intervention include resection and anastomosis, with resection being preferred. Our case demonstrates the associated occupational trauma in a butcher as the main cause of ulnar aneurysm formation and microembolization. Despite its rarity, physicians should consider HHS as a potential cause of ischemia and pain in the hand and fingers.

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