Hypothenar hammer syndrome

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DESCRIPTION

A 32-year-old man, a mason, presented with right hand pain of 2-week duration, but reported no acute injury. Ulcerative changes and blanching at the tips of right fourth/fifth digits were observed. Significant tenderness to palpation over the right distal palm was observed. Allen's test was negative (delayed colour return only after 30 s) on the right, normal on the left. The patient denied shortness of breath, atrial fibrillation, cardiomyopathy, stroke, cancer and connective tissue disease. A MR angiogram showed a corkscrew-like configuration and occlusion of the distal right ulnar artery with emboli to the proper digital arteries of the third, fourth and fifth fingers (figures 1 and 2), consistent with hypothenar hammer syndrome (HHS). Intravenous heparin was initiated and resection of the right ulnar artery aneurysm was performed, along with reconstruction using a non-reversed right saphenous vein graft. On follow-up at 24 months, the patient was symptom free.

Repetitive occupational or recreational trauma can cause injury to the ulnar artery where it is exposed over the hamate bone.¹ HHS is a rare vascular overuse disorder associated with vascular insufficiency of the medial hand, mostly in middle-aged men. The differential diagnosis for digital ischaemia includes Raynaud's disease/phenomenon, Buerger's disease, vasculitic/embolic phenomenon and thoracic outlet obstruction. While ultrasound can indicate HHS, angiogram allows definitive diagnosis.² Conservative approaches are

Figure 2 A contrast angiogram showing a corkscrew-like configuration of the distal right ulnar artery consistent with hypothenar hammer syndrome with emboli to the digital arteries of the third, fourth and fifth fingers.

Figure 1 A contrast angiogram showing a corkscrew-like configuration of the distal right ulnar artery consistent with hypothenar hammer syndrome with emboli to the digital arteries of the third, fourth and fifth fingers.

Learning points

- ▶ Repetitive occupational or recreational trauma can result in injury to the ulnar artery as it travels relatively unprotected over the hamate bone, leading to distal vascular compromise manifesting as hypothenar hammer syndrome.
- ▶ It usually occurs in middle-aged men who present with unilateral (dominant hand) symptoms associated with vascular insufficiency, more on the medial side; angiography is diagnostic.
- ▶ Surgical therapy including vascular reconstruction is reserved for patients with severe/refractory symptoms and poor collateral circulation; most can be managed with lifestyle changes and vasodilator/antiplatelet medications.

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appropriate in most patients (cessation of offending activity and smoking, calcium channel blockers/antiplatelet therapy), whereas surgical options are reserved for patients with severe/refractory symptoms and poor collateral circulation, as in our patient.³

Competing interests None declared.

Patient consent Obtained.

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