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Distal Digit Ulcerations and Necrosis Requiring Amputation in a Patient with Carpal Tunnel Syndrome

Courtney E. Heron, BS, Patrick Carr, MD, Seth Martin, MD, Barrett Zlotoff, MD
University of Virginia School of Medicine

A 77-year-old female with a past medical history of hypertension, chronic kidney disease, and bilateral carpel tunnel syndrome (CTS) presented to the dermatology clinic with non-painful ulcerations of the distal middle and index fingers of the left hand. Prior courses of cephalexin and prednisone produced minimal improvement. Initial differential included blistering distal dactylitis, chronic paronychia, neutrophilic dermatosis, and cholesterol emboli. The patient was started on bleach soaks, mupirocin, and amoxicillin-clavulanate after cultures grew *Enterobacter cloacae*. There was no improvement after multiple antibiotic courses. The patient was referred for vascular studies and to orthopedic surgery. Vascular studies were normal, and her distal middle digit was amputated due to unresolving necrosis of digit. She returned to clinic 10 months later with a new and more severe ulceration of the left index finger. At that time, blistering and ulcerative changes secondary to carpal tunnel syndrome were considered. Carpal tunnel release surgery of the left hand resulted in complete improvement within a month. Although uncommon, ulcerative and necrotizing variants of CTS have been described.[1,2] These malignant features are hypothesized to be secondary to impaired arterial flow and damage of sensory and autonomic fibers of the median nerve.[1] Therefore, most symptoms manifest on the distal middle and index finger of the hand. When patients present with ulcerative digit changes confined to the median nerve distribution, this diagnosis must be considered. Given the morbidity of this condition, prompt referral for surgery is paramount.

References

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