

# A case of Medial Hand Pain Leading To Cervical Rib Resection And Subclavian Artery Bypass

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## Introduction

Thoracic outlet syndrome (TOS) presents with a variety of symptoms resulting from compression of the neurovascular bundle by adjacent structures.

We hereby present a unique case of ischemic limb pain due to arterial insufficiency as a result of a cervical rib compression.

## Case Presentation

A 31-year-old right-handed ex-smoker man presented with a 10-day history of pain, numbness, and tingling of the medial aspect of the left hand.

Exam was negative for inflammation, joint swelling, muscle atrophy, dysesthesia, Allen's, Phalen, Tinel's tests, sensory or motor deficits, Spurling's maneuver, cervical radiculopathy or myelopathy.

He was provided with symptomatic treatment and advised to return in few weeks.

## Images



Figure 1. Left 5th digit showing new discoloration

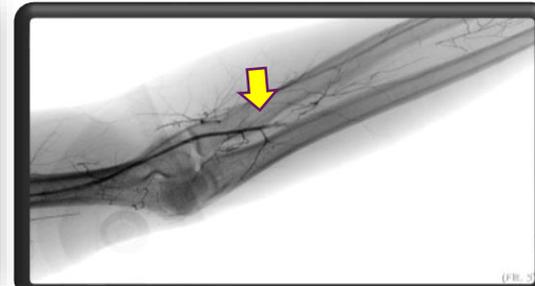


Figure 2. CT angiogram shows multiple radial artery occlusion.

## Follow Up

He reported increased pain, coldness and black discoloration of the left fifth nail (fig. 1). Exam revealed a cold left hand and unpalpable ulnar artery pulse. Angiogram (Fig. 2) showed segmental occlusion of the radial, ulnar, and multiple digital branches. Left subclavian artery aneurysm and distal embolization were noted. Resection of the cervical rib with excision and anastomosis with dacryon subclavian-subclavian interposition bypass was done.

## Discussion

Though rare, ischemic causes for hand pain must be considered in the differential diagnosis of hand pain given the dire consequences of missed or delayed diagnosis. Initial exam can be unrevealing, hence the importance of constantly remembering the “red flag” symptoms by both the patient and the physician.

Common causes for limb ischemia include systemic embolism, giant cell and Takayasu vasculitis, and radiation therapy. Upper limb ischemia should also be considered in patients receiving hemodialysis or have connective tissue disease.

## References

- Sanders RJ, Hammond SL, et al. Diagnosis of thoracic outlet syndrome. *J Vasc Surg* 2007; 46:601
- Murphy, JB. Cervical rib excision: collective review on surgery of cervical rib. *Clin John B Murphy* 1916; 5:227.