

DIGITAL NECROSIS FOLLOWING CORTICOSTEROID INJECTION FOR TRIGGER FINGERS



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Introduction

Corticosteroid injection into the flexor tendon sheath at the metacarpalhead is the most common non-surgical treatment for trigger finger. This technique is generally safe, with adverse events being rare. We report a case of digital ischemia with microemboli and necrosis following such injections, highlighting a rare but serious complication.

46 y old woman with a history of tobacco use ;
complaining of third et fourth right trigger fingers

J0

- 2 corticosteroid injections (Dépôt-Médrol) at the base of the 3rd and 4th fingers for trigger finger.
- Skin blanching of the third finger after the injection, resolved in minutes.
- Cyanosis and pain noticed later the same day.
- Suspicion of a transient vasospasm
- Watchful waiting

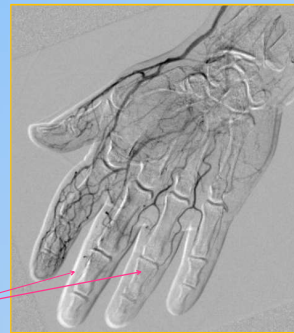
J + 3

- Urgent consult for pain and cyanosis of the distal phalanx of the third right finger.
- Coldness of the finger noted.
- Suspicion of a vasospastic reaction.
- Treatment : **Oral nifedipine** (30 mg/day) + stop tobacco use

J + 10

- Worsening pain and cyanosis. Hospitalisation and work up :
 - Normal labs :
 - No infection
 - No hypercoagulability,
 - No autoimmune disease.
 - Right upper extremity arteriogram : abrupt occlusion of the proper digital arteries in the third and fourth finger, consistent with microemboli with no evidence of vasculopathy
- Suspicion of embolization of the common digital artery
- **No iloprostot treatment due to lack of distal perfusion (no recovery deemed possible)**

TIMELINE



Occlusion of the digital arteries



J + 40

- Follow up :
 - Need for stage III analgesics to control the pain
 - Hypoesthesia of the upper palm
 - Total incapacity for work
- Outcome : Surgical management recommended with discussion of **distal phalanx amputation**.



Discussion

Supposed mechanism of injury : inadvertent **intra-arterial** injection into the **common digital artery** causing **microembolization** and necrosis.

Embolic complications were reported from **steroid** injections which contain **particles larger than red blood cells** (e.g., Depo-Medrol, Kenacort, Hexatrione). It has been shown by light microscopy that steroid particles (especially triamcinolone and methylprednisolone) tend to coalesce into aggregates exceeding 100 µm, which may contribute to microvascular sludging, with resultant occlusion and infarction.

Only 3 similar cases reported : Ulnar artery ischaemia following corticosteroid injection for carpal tunnel syndrom ; Ischemia of the index, and middle fingers after carpal tunnel injection ; Shower emboli and digital necrosis after corticosteroid injection for trigger thumb.

One case of transient vasospasm was also reported : transient ischemia of the left hand and the right long and ring fingers after corticosteroid injection into the small finger A1 pulley of the right hand and the left thumb carpometacarpal joint.