

A case of atypical **CRPS** successfully treated with peripheral nerve block

Cary Huang, M.D., Nicole Thomasian, M.D., Rohan Jotwani, M.D., M.B.A.
DEPARTMENT OF ANESTHESIOLOGY, NEW YORK-PRESBYTERIAN HOSPITAL / WEILL CORNELL MEDICINE

Introduction

- Complex Regional Pain Syndrome (CRPS)
 - type 1 v.s. type 2 (involves major nerve damage)
 - variable presentation, overlap of characteristics ¹
- Complex pathophysiology and heterogeneity present significant challenge to treatment
- No single therapeutic modality is uniformly effective, generally poor evidence of superior efficacy between interventions ^{1,2}
- Minimally invasive procedures such as sympathetic and peripheral nerve blocks are frequently used



Left: initial appearance, with purple discoloration and lichenification



Right: one month after initial injection, interval improvement in swelling, skin changes along the dorsum of foot

Case Report

- 29-year-old female with chronic left foot pain, allodynia, and skin changes after a plantar plate tear 5 months prior
- Diagnosed with type 1 CRPS, symptoms refractory to gabapentin, physical therapy, ketamine infusions x2
- Patient averse to lumbar sympathetic block
- Distal tibial nerve block performed
 - 30 gauge needle
 - 1 mL 0.25% bupivacaine + 10 mg dexamethasone
- Two weeks later:
 - 90% improvement in pain, tolerating shoes and walking longer distances
 - Persistent pain in first toe not covered by the initial block
- Repeat injection of the posterior tibial nerve + deep peroneal nerve one month later
 - still had significant relief and improvement in skin from the first injection
- Two weeks after second injection:
 - complete relief of pain in first toe
 - mild residual pain only in bottom of foot
 - continued improvement in skin changes

Discussion

- Budapest diagnostic criteria for CRPS ³
 - persistent pain disproportionate to injury
 - allodynia
 - skin color and trophic changes
 - no better alternate diagnosis
- Lichenification and scaling with CRPS is unusual
 - absence of systemic process or excoriation from chronic pruritus ^{4,5}
- Targeted peripheral nerve block using a small needle
 - focal distribution
 - patient's strong aversion to a proximal sympathetic block
- Achieved significant relief of symptoms, including skin changes, and rapid improvement in functional status

References

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