Dramatic Improvement of Acute Stage CRPS I in a Young Male Athlete Following Lumbar Sympathetic Blockade

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We would like to describe a case of presentation of the first stage of CRPS type 1 in a healthy 28 year old male who presented initially to our comprehensive pain management clinic for right foot pain persisting two months after right foot tendon surgery. The patient, a young male athlete, presented with the typical symptoms of acute phase complex regional pain syndrome type 1. The pain was described by the patient as pins and needles, tight, and worse in the toes. It was associated with right foot swelling and increased temperature. Initially the patient was prescribed gabapentin by another provider and he was taking this along with diclofenac, with no pain relief. Patient described abnormal sweating of the right foot as well. On initial exam, the right foot was hyperemic and edematous, with severely limited range of motion with dorsiflexion and plantar flexion secondary to pain. He required crutches for ambulation. The skin overlying the foot was hot to touch and allodynia was present. Hyperemia extended to the mid-calf around the circumference of the leg. No atrophy or nail changes were noted. Pulses were equal and +2 in both feet. The patient exhibited tenderness to palpation over the Achilles tendon as well as the medial and lateral malleoli. Patient was scheduled for lumbar sympathetic nerve block series, and medical management was continued with gabapentin with the addition of pregabalin and ibuprofen. He was to start physical therapy upon completion of the first injection. The skin temperatures of the dorsal aspect of each foot were noted pre-procedure and 15 minutes post-procedure for each of the 4 interventions.

Patient demonstrated dramatic reduction in pain level, increase in range of motion and return of function following the first of a sequence of 4 lumbar sympathetic injections. After the 4th injection, patient was able to ambulate without assistance and significant recession of the redness and swelling was noted. The 5th procedure was postponed due to significant improvement in symptoms and appearance of the limb. After the 5th injection, the patient reported return of hair growth over the dorsum of the right foot as well as nail growth. Patient was satisfied with the course of treatment and was able to participate in aggressive physical therapy which allowed him to return to his normal level of functioning. A total of five lumbar sympathetic injections were performed on the right side over a period of one month, with significant improvement in both range of motion of the foot as well as almost complete resolution of symptoms of stage 1 CRPS. Temperature asymmetry with specific skin temperatures were documented before and after each intervention. Photographs were used to document the resolution of hyperemia, edema, and improving visibility of dorsal foot veins throughout the course of the treatment. The dramatic improvement of the patientâ€™s symptoms after the first intervention reinforces the importance of early identification and intervention for sympathetically-mediated pain syndromes.