

## Patient history

The last thing this 55-year-old female real-estate agent expected following routine carpal tunnel-release surgery was a serious complication. Yet that is precisely what occurred. One week postoperatively, the treated hand had become badly swollen, reddened, almost completely dysfunctional and unbearably painful.

The referring physician prescribed short-acting acetaminophen/hydrocodone tablets. He also wrapped her hand in a cast in an ill-advised attempt to force extension of the fingers, which had locked into a balled-up position.

## Case description

Six weeks postoperatively, and with no signs of improvement, the patient's orthopedic surgeon referred her to us for help controlling her unremitting pain.

The patient's history and results of physical examination led us to suspect a form of complex regional pain syndrome known as reflex sympathetic dystrophy – RSD for short. To begin the process of confirming this suspicion, we ordered a triple-phase bone scan of the patient. It came back positive for RSD. However, a positive triple-phase bone scan by itself is not conclusive. To validate it, we then diagnostically administered stellate ganglion blockade injections. The patient reported substantial pain relief in her hand immediately afterward. Taken together, these results all pointed with reasonable certainty to RSD.

## Treatment plan

We recognized that we needed not merely to provide this patient desperately needed respite from the pain but also to end the pain relief roller-coaster upon which she found herself because of the short-acting medications being taken. Both objectives could be met, we felt, by modifying the patient's medications to provide continuous, 24-hour pain relief. Further, in so doing, this would make the patient comfortable enough to tolerate occupational hand therapy – something she required in order to restore function to the involved appendage.

Accordingly, we switched the patient's principal medication to a once-a-day, 120-mg morphine sulfate capsule. As to the acetaminophen/hydrocodone tablets, we instructed the patient to only use those for addressing breakthrough pain. We also believed the patient would benefit from taking duloxetine, a very effective combination mood stabilizer and nerve pain medication, and so we prescribed that for her as well.

Then, three days after beginning the new medication regimen, the patient was started on a therapeutic stellate ganglion blockade of 0.25% bupivacaine (dosage 10 cc), after which we sent her to see a hand-specialized occupational therapist to help desensitize the involved hand. Strict orders were given to the hand specialist to not use casting.

## Outcome

The stellate ganglion blocks in concert with the morphine sulfate and duloxetine

provided dramatic pain relief. This permitted the patient to tolerate well the occupational therapy of her hand; it took only three weeks of modalities and exercise to restore the hand to near-normal function and appearance.

## Discussion

This patient was fortunate in that her RSD was diagnosed and acted upon early. If intervention is started within the first three months of symptoms onset, the chances of achieving a complete cure are 50-50. Beyond that time, the chances of being able to cure RSD drop to near zero. The only thing that can be done for the patient at that stage is to provide pain management. In truth, it is rare for RSD to be detected and treated within the three-month window because most patients and their primary-care doctors assume that, given enough time and pain-relief medication, the problem will resolve on its own.

We issued our no-casting order to the hand specialist for the reason that molding a shell around an RSD-affected appendage is one of the worst possible actions that can be taken: Immobilization causes sympathetic nerve outflow to increase, causing exacerbation of symptoms.

Call 225-368-2300 today to schedule your preferred appointment time. We encourage, honor and welcome your referrals.

