



Neurogenic Mediated Intense Response of Psoriasis with Spinal Cord Stimulation Therapy

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INTRODUCTION: Spinal cord stimulation (SCS) is an effective treatment for patients with pain but the mechanisms of its action are inconclusive. Within a functional network of neurohormones, neuropeptides and cytokines, its not surprising that SCS increases blood flow or releases neuropeptides from sensory nerve endings. We report a case where a patient treated with SCS for postlaminectomy syndrome with lumbar radiculopathy, experienced an intense flare-up of lower leg psoriasis.

MATERIALS AND METHODS: A 44-year old female presented with postlaminectomy syndrome with lumbar radiculopathy. After months of conservative treatment (medication, nerve blocks, physical therapy and TENS), there was little reduction in pain. In for an SCS-trial, the patient was sterilely prepped and draped; the skin was anesthetized with 5cc of 2% lidocaine with epinephrine and 0.25% marcaine. A 14-gauge Tuohy needle was inserted and entered the epidural space at T12-L1. Separately, two 8-electrode leads (Advanced Bionics, Precision) were advanced up to T8, connected, programmed and stimulation covered the painful areas.

RESULTS: With SCS-trial, pain score in the lower back and legs fell to 7 from highs of 10/10 but the underlying psoriasis was intensely aggravated. Skin on both lower legs became red and flakey with the patient feeling things crawling on her legs. The device was removed at day-7. Photographs at 2 days following lead removal show the skin was red and flakey but not as intense with the SCS turned on.

CONCLUSION: We showed that a preexisting condition of psoriasis was aggravated by SCS treatment. Others have shown that psoriasis resolves at sites of anesthesia,

neuropeptides are up regulated and there is a proliferation of terminal cutaneous nerves and that arterioles can dilate further. Since the mechanism of cutaneous neurogenic inflammation is associated with the release of neuropeptides from sensory endings and that SCS increases blood flow its likely that SCS elicited the release of neuropeptides aggravating the psoriasis.