CRPS

Patient no 1:

A healthy 66-year-old man with a four-month history of pain in right foot, third and fourth toes, had a doppler ultrasound, confirming the diagnosis of right popliteal artery aneurysm with embolization. Unfortunately, after right femoral-popliteal grafts, the pain never subsidized; he had ongoing issues with cellulitis. The pain gradually developed into burning, stabbing, and electric shock (8-9/10).

MEDICATION: tramadol 50 mg QID, hydromorphone 2 mg Q3hr, aspirin 81 mg OD.
PHYSICAL EXAMINATION: Walked with a walking aid. The skin in the affected area was red and swollen. There was an unhealed necrotic ulcer on third and fourth toes. He also experienced allodynia to light touch and temperature sensation on the lateral dorsum of his right foot. The temperature on the affected area was 1.2 centigrade higher than the other side, obvious extra sweating. Pulses were palpable within the bypass graft and dorsalis pedis, but posterior tibial pulse was diminished. Range of motion reduced by 30%, fasciculation obvious. Pain disability index score 65/70, SOAPP score 3, GAD-7 score 17, PHQ-9 score 24.
Diagnosis: Complex Regional pain syndrome.
Started on PT and GMI, referred to psychologist, Nortriptyline started at 10 mg QHS and gradually increased to 75 mg QHS, Transdermal compound (Ketamine, Dexamethasone and

Gabapentin), Hydromorphone tapered and discontinued in two weeks. Tramadol discontinued.

Two months Follow up:

Pain 2-4/10. Skin temperature has a difference of 0.5 °C to other side. Necrotic ulcer on third toe reduced the size to less than 1 cm. He walks 20 minutes daily without walking aid. He has returned to modifying duty at work. Pain disability index score 41, GAD-7 score 5, PHQ-9 score 8.

Patient no 2:

60-year-old man with a longstanding history of chronic pain in his left leg. The pain started in 1980th due to an MVA, resulting in a soft tissue injury on his lower leg. Eight weeks after the injury, he developed severe burning pain, which gradually worsened. Over 10 years, he failed all pharmacological and nonpharmacological treatment. Eventually, his leg was amputated below the knee. Two weeks following the amputation, the pain returned, but worse on the stump. He rated the pain as 7-10/10. He described the pain as shooting, burning, and very sensitive to touch. His skin was a brownish color and swollen. The pain is aggravated by walking, stress, and not receiving enough sleep. His pain is minimally managed with a combination of a Fentanyl patch 100 mcg every other day and Gabapentin 3600 mg/day. He was

dependent on his cane for very limited mobility. Last PT was on 1999, and he was never referred to OT. His past medical history was unremarkable other than alcohol and benzodiazepine use disorder.

Physical examination with some erythema, swollen with no ulcer, no skin breakage or bony prominence. The temperature on the stump side is 1.1 degree centigrade higher than the entire body. There was allodynia and hyperalgesia on stump site. Range of motion on the knee joint was reduced by 40%. He scored

58/70 on pain disability index, 13 on SOAPP, 7 on GAD-7 and 16 on PHQ-9. There was no evidence of Heterotopic ossification on the imaging of the stump.

He is diagnosed with phantom limb pain and CRPS.

His gabapentin has been tapered by 100 mg every week. He started nortriptyline with 10 mg QHS and this has gradually increased to 50 mg QHS. His fentanyl patch was weaned off as a result of the buprenorphine micro dosing. He started on Metadol Tablet, which gradually increased to 5 mg TID. He also started applying a transdermal compound. GMI has been started at home through an app and he was referred to psychotherapy.

Four months follow up:

He walks the dog 20 mins every other day by using a hydraulic prosthetic. Hi home care hrs have been reduced to 4 hrs a week. His pain rating has reduced to 5-7/10 with Pain disability index: 47, GAD-7:5, PHQ-9: 8.