

INTRACTABLE CRPS LEADING TO MULTI-LIMB AMPUTATION

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Introduction

- Complex Regional Pain Syndrome (CRPS) is a chronic pain syndrome that usually affects limbs
- Variable disease course that can lead to severe physical and psychological disability.
- Two categories: CRPS type 1 (CRPS-I), with no identifiable nerve injury; and CRPS type 2 with identifiable nerve injury.
- Symptoms: sensory, vasomotor, sudomotor, motor, and trophic changes
- Treatments: supportive care to facilitate movement of the limb
- Here we present: a case of intractable CRPS-I in a young woman that was refractory to extensive multimodal therapies, which eventually progressed to debilitating kinesiophobia with multi-limb amputation.**

Patient-informed consent was acquired, and as this case report is devoid of patient identifiable information, it is exempt from IRB review requirements as per University of North Carolina policy

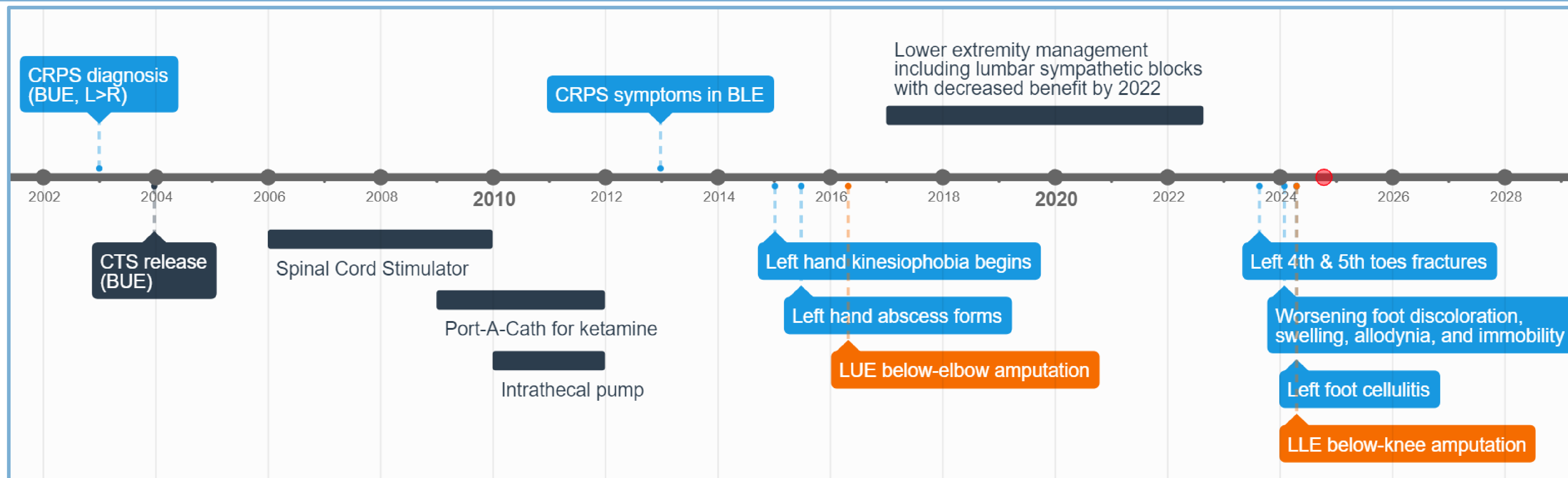


Figure 1 (Left):
Timeline to major amputations.

Figure 2 (Right):
LUE prior to amputation, and LLE 7 months post-injury



Case Presentation

- Patient:** 38-year-old female. History of hypertension, anxiety, PTSD, psychogenic nonepileptic seizures, and tobacco use.
- 2003:** diagnosed CRPS-I of the upper extremities. Symptoms: swelling, limb atrophy, skin/nail changes, hyperalgesia, allodynia, & decreased range of motion.
- Treatments:** multi-modals including neuropathic medications, NSAIDs, steroids, opioids, & topical formulations; escalations to bisphosphonates, ketamine infusions, stellate ganglion blocks, spinal cord stimulator, and intrathecal pump (Figure 1).
- 2015:** Pain peaked with severe left upper extremity (LUE) kinesiophobia.
- 2016:** Prolonged limb immobility became complicated by venous stasis with thrombosis, leading to gangrenous infection (Figure 2) requiring a LUE below-elbow amputation (BEA).
- August 2023:** she stumbled and sustained left foot injuries which exacerbated left lower extremity (LLE) symptoms (Figure 2).
- LLE pain followed the same course as her LUE: severe kinesiophobia, venous thrombosis, & cellulitis.
- April 2024:** she elected for an LLE below-knee amputation (BKA) following her cellulitis diagnosis due to fear of progression to sepsis.

Discussion

- This case highlights the importance of mobility in patients with CRPS.** Severe immobility appeared to incite the eventual amputations.
- Providers should have a high level of suspicion for a wide differential diagnosis when facing **atypical presentations of CRPS symptoms (bilateral distribution, venous thrombosis, & migratory pain).**
- Neurological, immunological, and rheumatological etiologies should be investigated early on.
- Further research is needed to evaluate the long-standing effects of amputation as a treatment for therapy-resistant CRPS-I.

References

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