

Refractory Complex Regional Pain Syndrome Following Atypical Herpes Zoster Infection: A Medically Challenging Case

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Introduction

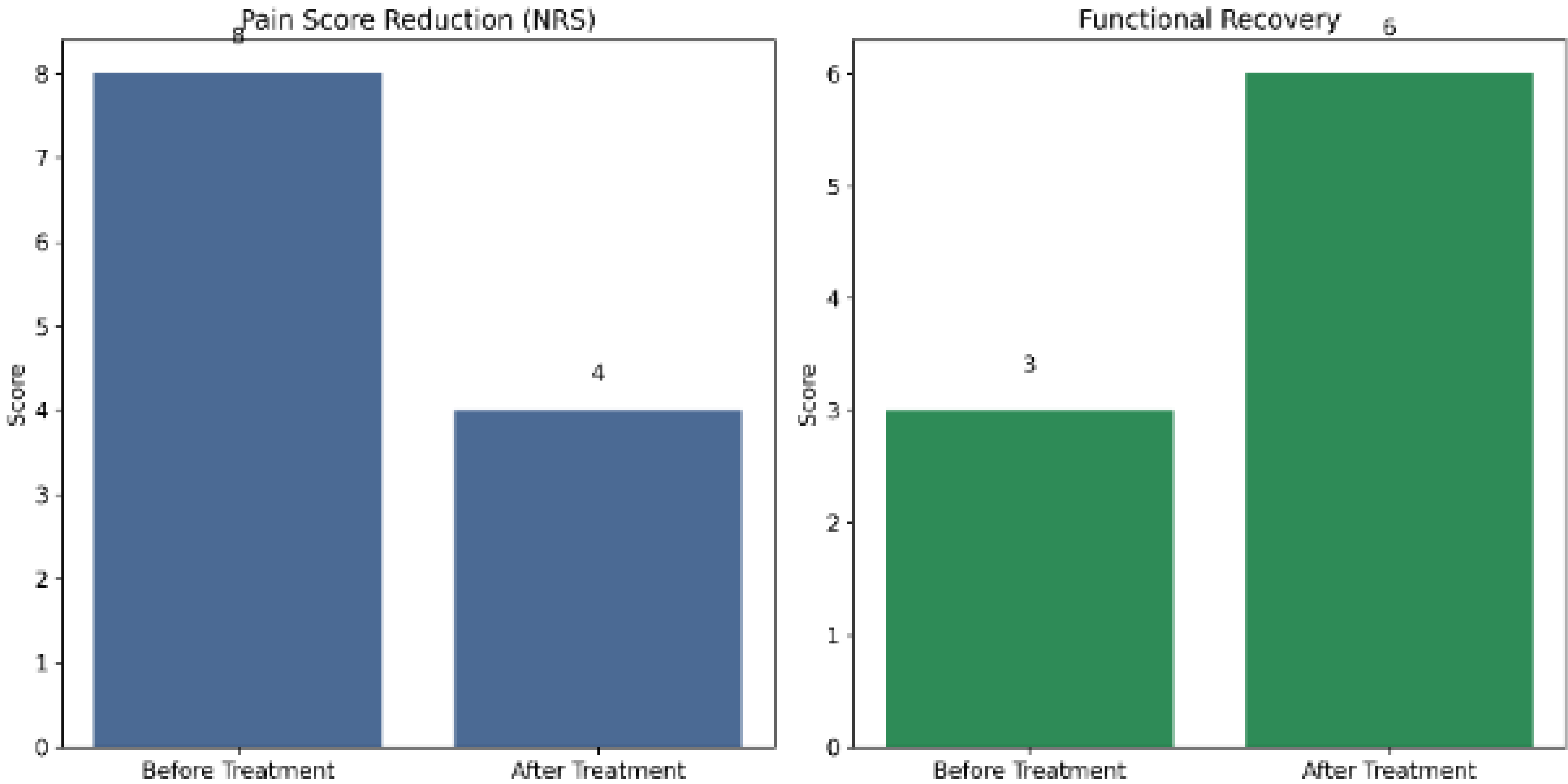
Complex Regional Pain Syndrome (CRPS) is a chronic, debilitating neuropathic pain condition typically triggered by trauma or surgery. Viral infections are rarely recognized as initiating factors. This case presents CRPS Type I developing after an atypical herpes zoster infection, highlighting diagnostic challenges, therapeutic complexity, and the importance of early recognition and multidisciplinary intervention.

Case Description

A 56-year-old man with well-controlled type II diabetes developed a sudden-onset, erythematous, “sunburn-like” patch on the left forearm without vesicular eruption. He experienced severe burning pain, hyperalgesia, swelling, vasomotor changes (temperature asymmetry, color changes), sudomotor dysfunction, and progressive motor weakness. Laboratory workup and MRI were unremarkable. Nerve conduction studies excluded large-fiber neuropathy. PCR and serology confirmed varicella-zoster virus reactivation despite atypical presentation. Using Budapest criteria, CRPS Type I was diagnosed. Conventional therapies—including NSAIDs, gabapentin, topical lidocaine, and corticosteroids—provided minimal relief. Multidisciplinary pain management included bisphosphonate infusions, stellate ganglion sympathetic block, graded motor imagery, mirror therapy, and supervised occupational/physical therapy. Written informed consent was obtained; IRB approval was waived.

Results

- After four months of multimodal treatment, the patient achieved ~50% pain reduction (Numeric Rating Scale), improved limb temperature regulation, and modest functional recovery. Persistent allodynia and limited range of motion required ongoing therapy and periodic sympathetic nerve blocks.



Discussion

This case highlights a rare viral trigger of CRPS, where atypical herpes zoster infection without vesicles delayed recognition and targeted therapy. Differentiating CRPS from post-herpetic neuralgia can be challenging when imaging and electrodiagnostic studies are normal. Early application of Budapest criteria and comprehensive multimodal management—including sympathetic blocks, bisphosphonates, and motor retraining—can improve functional outcomes. This report contributes to limited literature on post-viral CRPS and underscores the importance of vigilance for atypical presentations.

Conclusions

Atypical herpes zoster infection can trigger CRPS, posing diagnostic and therapeutic challenges. Early recognition and multidisciplinary management are essential for improving patient outcomes.

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