Multi-Modal Approach for Treatment of Shoulder-Hand Syndrome: A Case Report

Introduction/Objectives

Complex regional pain syndrome (CRPS) is a neuropathic pain disorder which typically develops as an exaggerated response because of nerve damage, prior trauma, or a result of a central nerve process.\(^1\) This disorder typically affects the extremities, however when affecting the upper limb, this disorder has been coined as shoulder-hand syndrome (SHS).\(^1\) For patients with stroke, the prevalence of SHS is 12.5-27%, theorized to be related to the altered biomechanics of the hemiplegic shoulder.\(^2\) However due to the prior stroke, diagnosis of SHS can become obscured as symptoms of pain, spasticity, altered temperature, and dystrophic skin can all be associated with non-use.\(^1\) This case demonstrates a use of multimodal treatments to address symptoms of SHS.

Materials and Methods

65-year-old male with recent stroke with residual R hemiplegia presented for uncontrolled neuropathic pain in right upper extremity. Patient had trialed baclofen and course of physical therapy prior to presentation, resulting in a decrease in spasticity with minimal pain relief. Clinically the patient presented to clinic with pain, swelling, and decreasing range of motion of the hand and wrist, with progression to include the shoulder.

Results

Due to patient’s minimal response to spasticity medication and physical therapy, patient was prescribed neuropathic pain medications: Amitriptyline and Gabapentin. Patient experienced more relief with neuropathic medication compared to prior, however not sufficient to improve patient’s quality of life. Patient was referred for suprascapular and median nerve blocks.

Conclusion

CRPS can be a difficult diagnosis to obtain in the post-stroke patient population, especially SHS. There are multiple confounding etiologies of pain that can mask SHS, including shoulder subluxation, spasticity, and musculoskeletal pain. Post-stroke multi-modal approaches are often taken to address symptomology. However, if a patient is not experiencing relief, interventional pain procedures should be considered as part of this multi-modal approach.\(^3\)

References

Acknowledgements:

Nothing to disclose