

Stellate ganglion block and scalene chemodenervation to treat CRPS as a complication of arthroscopic rotator cuff repair revision

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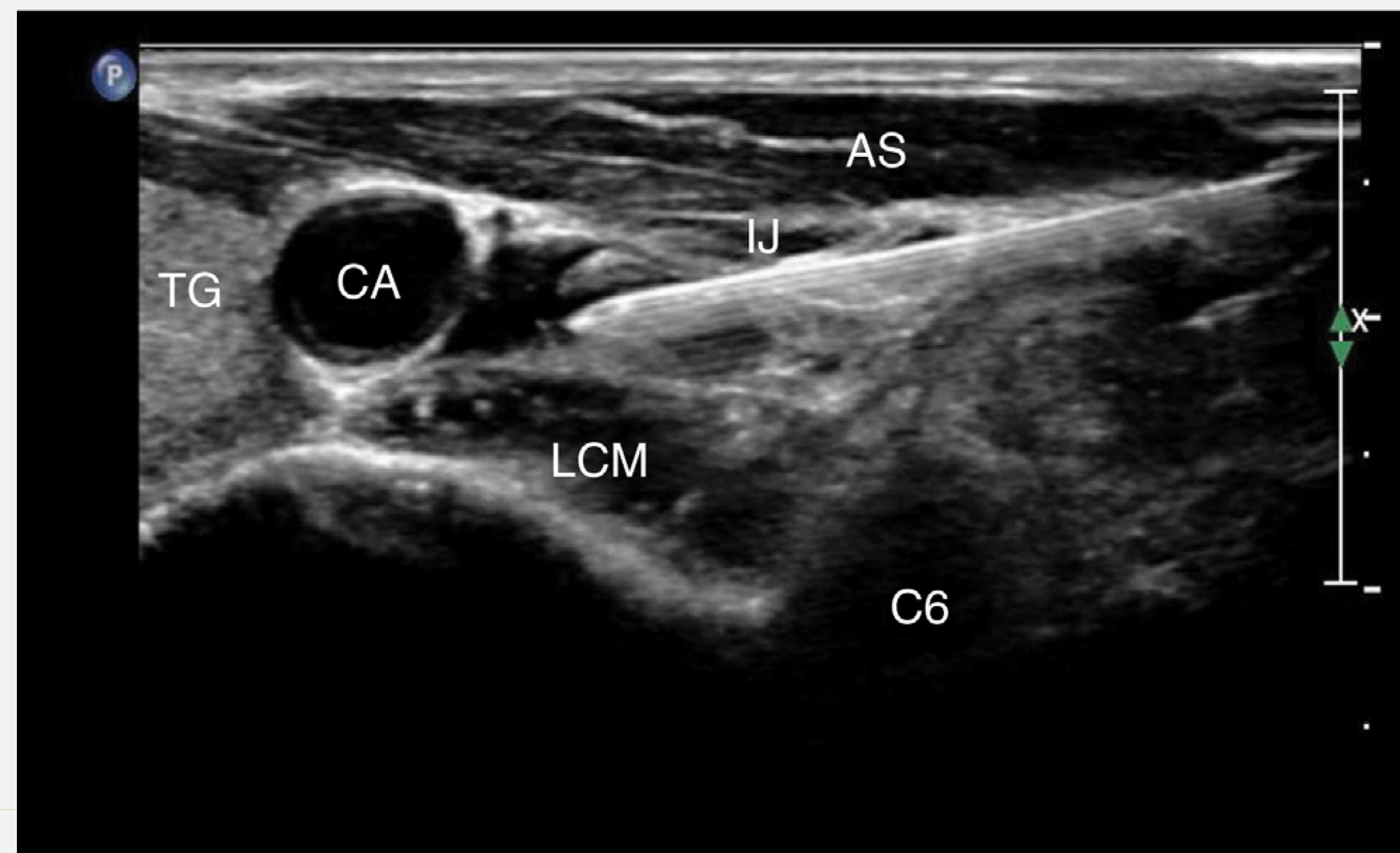
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Introduction

Complex regional pain syndrome (CRPS) is a rare and debilitating condition that is commonly treated with stellate ganglion blocks, which have been found to decrease pain and increase ROM in patients suffering from CRPS. CRPS can occur in up to 10% of patients as a complication of arthroscopic rotator cuff repair (ARCR), however it is unknown how many patients are affected following a rotator cuff repair revision. Here we discuss the treatment course of CRPS following an ARCR revision.

Ultrasound-Guided Imaging



Case Presentation

A 60-year-old male presented to the pain clinic with RUE pain following right arthroscopic rotator cuff repair (ARCR) revision seven months prior. Patient noted post-surgical pain, stiffness, swelling, temperature changes and reduced arm mobility. At orthopedic follow-up he was told to continue physical therapy; however, with worsening symptoms he was referred to the pain clinic for concern of CRPS. He was found to have severe tenderness at the R scalenes and deltoid, swelling of the arm and fingers, erythema and increased arm temperature. He was then scheduled for an ultrasound-guided right stellate ganglion block and right anterior and middle scalene chemodenervation for a possible superimposed thoracic outlet component. The stellate block was repeated once and to-date he has had resolution of symptoms.

Discussion

Stellate ganglion blocks have a known role in modulating the sympathetic nervous system and studies have shown significant pain relief in patients with CRPS likely via a reduction in sympathetic overactivity. We also employed anterior/middle scalene chemodenervation to target the nociceptive component of pain. The combination of these treatments resulted in a multimodal approach to manage this patient's CRPS.

Conclusion

CRPS following ARCR revision, though rare, can present significant challenges in terms of pain management and functional recovery. In this case, a stellate ganglion block combined with anterior/middle scalene chemodenervation resulted in notable symptom relief and functional improvement.