

## PULSED RADIOFREQUENCY TREATMENT OF SCAR NEUROMA IN THE SHOULDER- A CASE REPORT

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**Introduction:** The treatment repertoire for managing chronic pain conditions of the shoulder varies and has commonly centered on pharmacotherapeutics optimization, intra and peri-lesional injections, physical therapy and rehabilitative exercises, and surgery, with the latter being suboptimal at times. Pulsed radiofrequency ablation (RFA) is a novel technique that is applied to nervous tissue to treat chronic pain conditions including painful dysfunction of the shoulder joint. This approach has been suggested as a less neurodestructive alternative to continuous radiofrequency lesioning, with greater understanding and acceptance worldwide.

**Discussion:** We report a case of a 42 year old gentleman presenting with a post-traumatic comminuted humeral head fracture which was treated via PHILOS plating. A year on, he developed neuropathic-like pain over the anterior shoulder which was attributed to humeral head avascular necrosis. He was attended by the chronic pain service and commenced on multimodal intervention. Despite undergoing a reverse shoulder arthroplasty, his neuropathic symptoms intensified during the early post-operative period which severely restricted his rehabilitation. This required further escalation of various analgesics with the affected arm needing a sling at all times for comfort. His complaints centered around a neuromatous scar region which exhibited signs of hyperesthesia and allodynia. A trial of diagnostic and therapeutic lignocaine injection over the most tender scar region provided a remarkable relief, albeit for a transient fortnight period. Pulsed radiofrequency ablation was delivered encompassing the cutaneous distribution of the supraclavicular and upper lateral brachial cutaneous nerve provided significant pain reduction. His DASH scores showed an improvement from pre-procedural, 2 weeks, 3 months and at 1 year follow-up points (87, 68.75, 63.4, and 55 respectively).

**Conclusion:** Pulsed RFA holds tremendous promise in the management of chronic shoulder pain. We hope to document the future pain evolution and functional permanence in this case to further understand the long term prognosis.