

## THE SWEET RELIEF OF PAIN : A CASE REPORT

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### INTRODUCTION:

Perineural injection therapy (PIT) targets cutaneous nerves as potential pain generators using dextrose injection.

This is a case report on the use of superficial perineural injection for the treatment of a painful supraclavicular nerve neuroma in a patient.

### REPORT:

A 22 year-old gentleman, previously underwent ORIF for a closed left clavicular fracture, presented to our facility one year post implant removal with severe pain - score of 8 on the Numerical Rating Scale (NRS) and dysesthesia over the left clavicular region.

Examination revealed tenderness along the surgical scar with severe pain upon light touch, reduced sensation over anterior chest wall and a positive Tinel's sign. He was diagnosed with a left supraclavicular nerve neuroma. After failed conservative treatment, he was subjected to superficial perineural injection with Dextrose 5%, added with Sodium Bicarbonate 1:100 along tenderness points on the scar – total 8 points. A total of 2 series of injections at an interval of 2 weeks were administered. At subsequent follow-ups, noted a significant reduction in pain from 8 to 1 with resolved dysesthesia.

### CONCLUSION:

The purported mechanism is, dextrose 5% is thought to suppress neurogenic inflammation by inhibiting transient receptor potential vanilloid receptor-1 (TRPV 1) on peripheral nerves, hindering release of neuropeptides which trigger the inflammatory cascade.

Another mechanism is, PIT causes hydro-dissection which contributes to the therapeutic effect by detaching adhesions and alleviating nerve compression.



**Figure 1: Points of Tenderness Marked**



**Figure 2: Injection over marked sites**

We have shown the potential of PIT and its postulated mechanisms. Additional research will enhance understanding of PIT in neuropathic pain conditions.

### REFERENCES:

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