

HITTING THE TARGET: PERIPHERAL FIELD MODULATION FOR STERNAL PAIN

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Background and Aims

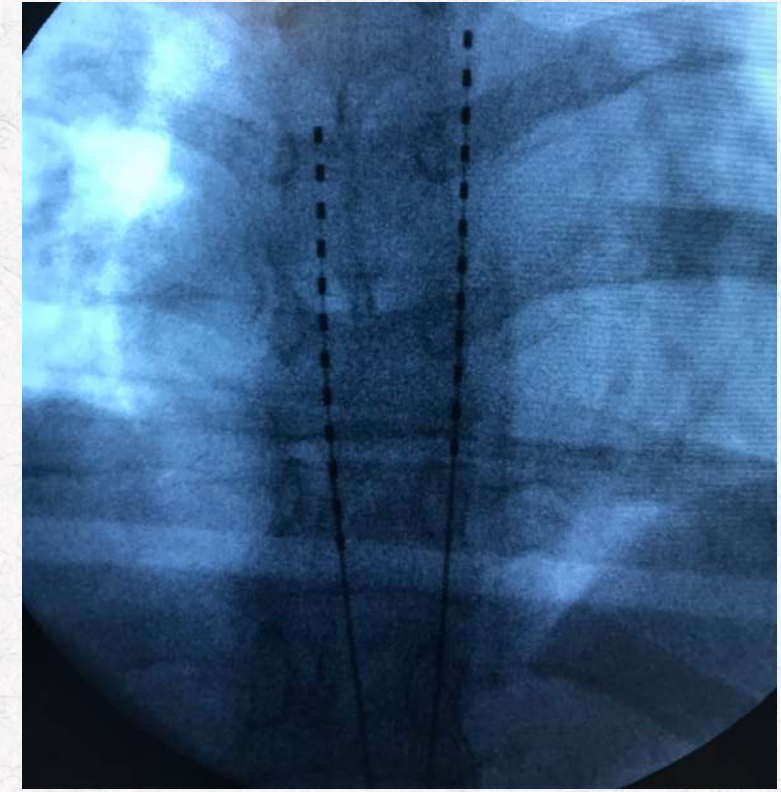
Post-traumatic persistent sternal pain can be resistant to conventional surgical and medical management. We report successful management of persistent sternal pain following rugby injury with peripheral field stimulation.

Method

A 21-year-old rugby player developed persistent sternal/chest pain following sternal injury resistant to treatment with analgesics, steroid injections and insertion of a manubrio-sternal plate, which was subsequently removed. He did not respond to use of 8% capsaicin, lignocaine patch and pain management strategies.

He presented with visual analogue score of 7-10/10. He had stopped working and socialising, scoring highly on the EQ5D, depression, anxiety, catastrophising and suicidal ideation. The sternal scar had healed with mild increased sensitivity over the xiphisternum.

Trial of peripheral field stimulation was done in February 2018 using 2 subcutaneous leads with 12 contacts each. Full implant with 2 sternal leads connected to Nuvectra® Algovita pulse generator was done in April 2018. The optimal stimulation parameter that provided pain relief was stimulation at 60Hz frequency and pulse width of 1500us.



Results

By September 2018, he was pain free, back at work requiring no medications. The pain resistant to conventional treatment responded well to peripheral Neuromodulation. He continues to report excellent pain relief.

Conclusions

Post-traumatic persistent pain is thought to be due to small fibre neuropathy initiated by trauma. We describe the use of percutaneous field stimulation in treating one such condition which is minimally invasive and adds to the increasing use of peripheral Neuromodulation. We also describe the feasibility of implanting the leads close to the site of pain. We advocate consideration of peripheral Neuromodulation in carefully selected patients.

References

- Meier K, et al. 2017. Peripheral Neuromodulation for the Treatment of Postamputation Neuroma Pain: A Case Report. *A & A Case Reports*. 8(2):29-30
- Sharpin N, et al. 2015. Peripheral neuromodulation for the treatment of refractory trigeminal neuralgia. *Pain Res Manag*. 20(2): 63-66