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Effect of pulsed radiofrequency therapy on chronic refractory atlanto-occipital joint pain

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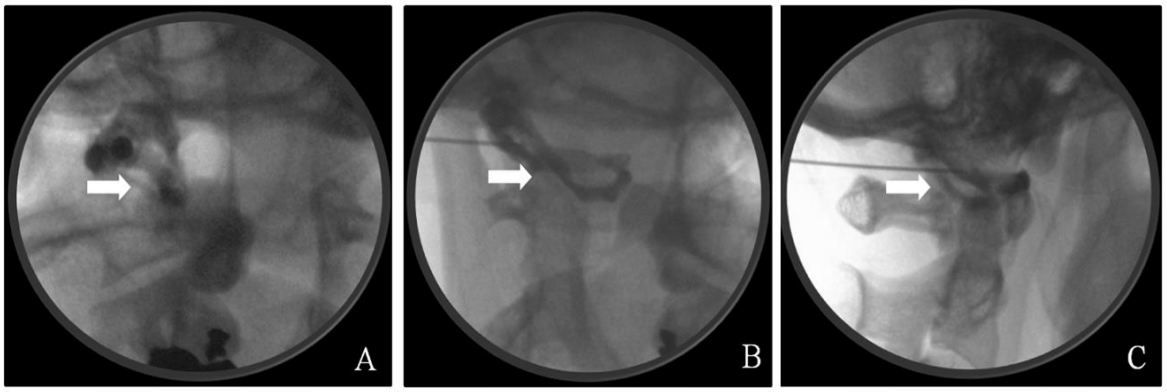
OBJECTIVE
Despite several methods of conservative management, many patients with atlanto-occipital (AO) joint pain complain of persistent pain. In the current study, the authors investigated the clinical efficacy of intra-articular pulsed radiofrequency (PRF) therapy for the management of refractory chronic AO joint pain.

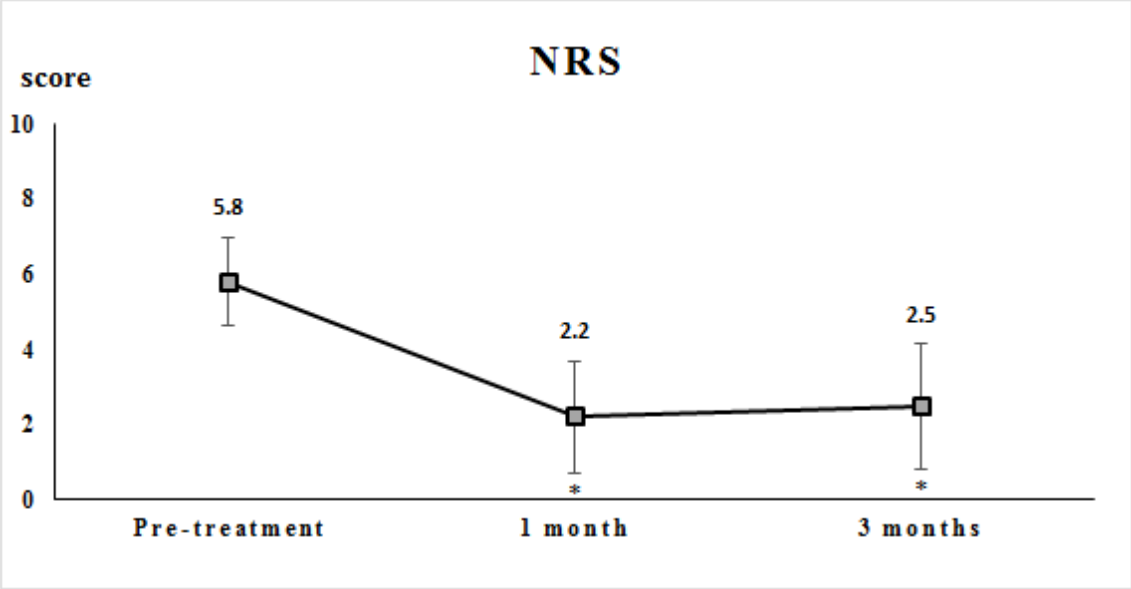
METHODS
Twenty patients with refractory AO joint pain were recruited, and each received intra-articular AO joint PRF stimulation. Pain reduction after PRF therapy was measured using a numerical rating scale (NRS) before, and at 1 and 3 months, after treatment. Successful pain relief was defined as ≥ 50% reduction in the NRS score compared with the pretreatment score. At 3 months after treatment, patient satisfaction levels were also examined. Patients reporting very good (score = 7) or good (score = 6) results were considered to be satisfied with the procedure.

RESULTS
The NRS scores changed significantly over time. At 1 and 3 months after PRF therapy, the NRS scores were significantly reduced compared with pretreatment scores. Sixteen of the 20 (80%) patients reported pain relief and were satisfied with treatment results 3 months after PRF. No adverse effects were reported.

CONCLUSIONS
Intra-articular PRF therapy is a beneficial treatment tool for managing refractory chronic AO joint pain.



Fluoroscopy-guided pulsed radiofrequency on the atlanto-occipital joint. A: Ipsilateral side oblique view; a 25-gauge curved tip needle is inserted into the atlanto-occipital joint.



Average numerical rating scale (NRS) scores for atlanto-occipital joint pain. Pain was reduced significantly from 5.8 ± 1.2 at pretreatment to 2.2 ± 1.5 at 1 month and 2.5 ± 1.7 at 3 months after pulsed radiofrequency stimulation. *Indicates a statistically significant result (i.e., $p < 0.05$).