

Letters to the Editor

Comparison of Lateral Branched Pulsed Radiofrequency Denervation and Intraarticular Depot Methylprednisolone Injection for Sacroiliac Joint Pain: Inquiry for Additional Investigation

TO THE EDITOR:

The prospective, randomized study, "Comparison of Efficacy of Lateral Branched Pulsed Radiofrequency Denervation and Intraarticular Depot Methylprednisolone Injection for Sacroiliac Joint Pain" by Dutta K, Dey S, Bhattacharyya P., et al (Pain Physician 2018; 21:489-496) provides valuable insight into the outcome treatment differences between pulsed radiofrequency (PRF) denervation and intraarticular depot methylprednisolone injection for this type pain. The study (1) was informative, thorough, and adequately powered. It reinforces the effectiveness of both treatment modalities for sacroiliac joint pain and highlights the difference in the long-term outcome for each.

The study results found significant Numeric rating Scale (NRS) pain scores differences between the PRF and steroid groups at the 3-month and 6-month post procedure period. The 3-month follow up NRS scores for the steroid group were 4.400 ± 0.9856 and PRF group scores were 3.067 ± 0.8837 ($P = 0.0005$); the 6-month follow up results for the steroid group were 5.400 ± 1.549 and PRF group were 3.200 ± 1.207 ($P = 0.002$). This data suggests PRF, compared to the intraarticular depot methylprednisolone injection, has comparably prolonged pain relief outcome.

On another note, the prospective study (2) studied the pain relief outcome using the combination of steroid injection immediately after radiofrequency neurotomy. The mean immediate pain relief, post procedure score, based on the NRS was 85% followed by 65%, 78%, 62%, and 59.5% at 1 month, 2 months, 6 months, and 1 year respectively. Roy C., et al. (2) conclusively reported the combination of radiofrequency neurotomy with methylprednisolone steroid nerve injection showed significant long term pain improvement

in chronic pain patients with lumbar facet arthropathy.

Even though the 2 studies involved different anatomical locations, and different procedural events for treatment of lumbar facet joint arthropathy and sacroiliac pain respectively, we found the improved pain scores lasting up to 1 year to be particularly interesting. However, the original study (2) did not have separate study arms to differentiate the independent outcome effects of radiofrequency neurotomy, steroid injections, and placebo treatments on this population group.

On review of current literature, specific studies on the long term pain relief using a combination of intraarticular steroids injections together with radiofrequency ablation is limited. We found Dutta et al's (1) article to be very insightful and would like to encourage the authors to continue their well-designed study and include a treatment arm that combines both pulsed radiofrequency denervation and intraarticular steroid injection. We also suggest extending follow up to 1 year to find out the degree and duration of pain relief from the combination treatment arm for management of sacroiliac joint pain.

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1. Dutta K., Dey S., Bhattacharyya P., Agarwal S., Dev P.. Comparison of efficacy of lateral branch pulsed radiofrequency denervation and intraarticular depot methylprednisolone injection for sacroiliac joint pain. *Pain Physician* 2018; 21:489-496.
2. Roy C., Chatterjee N., Ganguly S., Sen-gupta R. Efficacy of combined treatment with medial branch radiofrequency neurotomy and steroid block in lumbar facet joint arthropathy. *J Vasc Interv Radiol* 2012; 23:1659-1664.