

Ganglion impar injection approaches and outcomes for coccydynia

Sir,

We praise your journal and authors Gonnade *et al.*, on the excellent recent publication titled, "Ganglion impar block in patients with chronic coccydynia."^[1] Their study of patients with chronic coccydynia (coccyx pain) showed that ganglion impar injections with local anesthetic block and corticosteroid significantly decreased pain and disability scores even at the maximum length of study follow-up, which was 6-month postinjection.

The authors clearly described injecting the ganglion impar via the sacrococcygeal junction. We would like to point out that other needle approaches can also be done, depending on the patient's anatomy. Specifically, interventional physicians should be aware of alternative approaches via the

first^[2] or second^[3] intracoccygeal joint (between coccygeal vertebral bodies one and two, or between coccygeal vertebral bodies three and four, respectively). These approaches have been referred to as being transcoccygeal, intracoccygeal, or coccygeal transdiscal. These newer approaches have some potential advantages. First, since the sacrococcygeal joint is fused in 51% of humans,^[4] these newer approaches provide access through joints that are more likely to be patent. Second, human cadaver studies have shown that the ganglion impar is usually located at the upper coccyx, rather than at the sacrococcygeal joint.^[5]

We noted that the authors excluded from treatment any patients who had imaging abnormalities that would explain their tailbone pain. This surprised us since our experience

is that coccydynia patients often respond extremely well to these impar injections, regardless of whether they do or do not have coccygeal imaging abnormalities. We would be very interested in the authors' thoughts on their exclusion criteria.

We hope our comments and the authors' reply will provide even more insights on relieving pain via these injections.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

Patrick M Foye, Nourma Sajid, Gerard John D'Onofrio

Department of Physical Medicine and Rehabilitation,
Rutgers New Jersey Medical School, Newark,
New Jersey, USA
E-mail: doctor.foye@gmail.com

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Access this article online	
Quick Response Code:	Website: www.ijri.org
	DOI: 10.4103/ijri.IJRI_64_18

Cite this article as: Foye PM, Sajid N, D'Onofrio GJ. Ganglion impar injection approaches and outcomes for coccydynia. *Indian J Radiol Imaging* 2018;28:482-3.
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