CORRESPONDENCE

In reply: A safer step-by-step approach for erector spinae plane phenol neurolytic blocks

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Dear Editor,

I read with interest the comments by Dr. Rocha-Romero *et al.*,¹ in response to our article entitled “*Safety of neurolytic erector spinae plane blocks for cancer pain*”.² The authors point to some interesting issues that I would like to respond to.

While I have no doubt that the efficacy of a phenol neurolytic erector spinae plane block (ESPB) is clearly shown in their case,¹ as well in previous publications, the limited number of case reports makes it difficult to draw confident conclusions regarding safety. As the authors themselves stated in one of their reports, “definitive evidence of safety of ESPB as a neurolytic block will require randomized clinical trials”.³ The long-term complications and other dangers of the spread of phenol beyond the intended site of neurolysis will be an issue for discussion by ethics committees responsible for approving such studies.

In our previous letter to the Editor,² we pointed out the long-term implications of possible paraspinal muscle atrophy following ESPB-phenol neurolysis, which might adversely impair the spinal balance and global alignment. This concept has been proposed by other researchers and was well-illustrated in a recent paper regarding an ESPB's ability to affect the function of paraspinal muscles as a stabilizer of the vertebral column.⁴ They suggested that direct and extensive area of contact of the local anesthetic with structures involved in spinal stability may inhibit all active, passive, and neural control subsystems.⁴ The result

would be direct paraspinal muscle relaxation and interspinous ligament transducer inhibition with a greater risk of spinal instability.⁴ It could be reasonably assumed that these effects would be even more evident if neurolytic agents are used instead of local anesthetics.

Rocha-Romero *et al.* also evoked the similarity with treating facet joint pain with radiofrequency ablation (RFA) as an argument to reduce concerns about any potential negative effects of a neurolytic ESPB on the dorsal rami.¹ Using RFA offers the advantage of precision, which provides a considerable safety margin. Indeed, accurate placement of RFA needles is paramount and requires a thorough knowledge of the target and associated radiographic landmarks to avoid ablating the wrong nerve elements. In contrast, injection of a neurolytic agent with an ESPB technique may cause a marked distribution of injectate over multiple (up to six) vertebral levels³ and thus potential complications arising from alteration of non-target tissues.

In the setting of limited safety evidence, the risk-benefit ratio should be rigorously analyzed in each patient prior to application of neurolytic ESPB. Its clinical application should be more clearly defined—e.g., for the relief of terminal cancer patients experiencing chronic intractable pain whose life expectancy is very limited. The limited documentation of safety should be clearly disclosed to patients before any application.

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