



Reply to letter to the editor: Inter-transverse process blocks: caution about difference in methods

AUTHORS' REPLY: We thank Dr. Sethuraman for his interest in our case report [1]. We want to reply because we believe that organizing the concept of the intertransverse process block (ITPB) and discussing it in *Anesthesia and Pain Medicine* will help readers better understand the process.

In determining the nomenclature of regional anesthesia, the ITPB concept encompasses the multiple injection costovertebral block, the subtransverse process interligamentary plane block, the costovertebral foramen block (CTFB), and the midpoint transverse process to pleura block (MTPB) [2].

Please note that we performed a 'costovertebral foramen block' in case 1 [3], which is a faithful reproduction of the report by Shibata et al., and we did not perform a 'multiple injection costovertebral block.' In fact, there was a discussion between Dr. Shibata's group and Dr. Nielson's group regarding with the needle direction [4]; please refer to that as well. We performed CTFB in support of the opinion of Dr. Shibata et al that caudal to cephalad needle direction minimizes the risk of neurovascular injury. Therefore, we believe that the needle direction was correct.

We believe this point was caused by the confusion of nerve blocks with similar names and concepts, and that it is clear that procedures of ITPB need to be standardized.

Another point of interest in his letter was the representation of CTFB and MTPB as interfascial plane blocks. ITPB targets the tissue complex posterior to the superior costovertebral ligament (SCTL) [5] and is considered distinctly different from blocks that target the fascial plane, such as the erector spinae plane block.

This 'intertransverse tissue complex' comprises the intertransverse ligament, fatty tissue, the intertransverse and latissimus dorsi muscles, and the SCTL. Different from interfascial plane blocks, the feature of achieving analgesic efficacy by administration of local anesthetics into tissue complexes closer to the pathway to the paravertebral space is

unique to ITPB.

In summary, the concept of ITPB has been established, but standardization of the technique is needed, as well as clarification of the mechanism and recommendations for appropriate clinical indications.

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