LETTERS

Phenol spread in erector spinae plane block for cancer pain

To the Editor,

We read with interest your recent report outlining the distribution of the erector spinae plane block (ESPB).[1] In your cadaveric study, dye stained the deep and superficial erector spinae muscles and dorsal rami posterior to the costotransverse foramen. The ESPB is a relatively new interfascial plane block originally described for thoracic pain,[2] but with an expanding number of reports in numerous other perioperative and pain settings. These findings encouraged us to perform a neurolytic thoracic ESPB in a patient with intractable cancer pain who required analgesia in the left hemithorax.

A 48-year-old woman presented at our pain service at the National Cancer Institute with symptoms of shooting and burning severe pain on her left thoracic cage, that increased with deep inspiration. She had diagnosis of adenoid cystic carcinoma of the tongue, clinic stage IV and a history of pleura resection and radiotherapy 30 grays/10 fractions for pleura metastatic lesions. We performed ultrasound-guided ESPB using in-plane approach with a linear high-frequency (10–5 Hz) probe at the left T5 transverse process. After 1 mL saline hydrodissection of the fascial plane deep to the erector spinae muscle, 20 mL of bupivacaine 0.25% with methylprednisolone 40 mg was injected with complete relief that lasted for a week, numerical rating scale (NRS) of 10 to NRS 0.

A month later she returned to our pain clinic again with the symptom of severe pain in the left thoracic area. As a new finding, a positron emission tomography-CT scan demonstrated marked diffuse fibrosis of the left pleura plus elevation of the left hemidiaphragm. The patient had a great relief to the point that she requested an identical procedure but ideally with a sustained relief. Oral morphine 45 mg, didn't offered any pain relief. After discussion with our pain management team, and taking into account the excellent outcome with the first ESPB and cancer progression, the patient agreed for the ESP neurolytic block. In order to explore the spread of the injectate, CT testing was planned during the procedure. An ultrasound-guided ESPB using in-plane approach at the left T5 transverse process was performed. About 1 mL of contrast medium (iopromide 300 mg/1 mL) was injected at the fascial plane of the erector spinae muscle and we obtained a CT image. Afterwards, boluses of phenol 6% diluted with 8 mL of contrast medium were injected under ultrasound guidance up to a total of 12 mL and in order to explore the spread of injectate we obtained a CT image (figure 1).

The patient reported more than 80% of pain relief 30 min after the procedure was finished (NRS 8 to NRS 2). We noticed that the contrast medium did not reach the lowest thoracic levels where the tumor was also located. However, we did not change the level of our approach since our diagnostic block was successful. During follow-up a week later, she stated that 12 hours after the procedure she felt a burning sensation at the injection site. Hypoesthesia from left-sided T5 to T12 was confirmed; celecoxib was added to her treatment the burning sensation subsided. Analgesic response for 4 months was achieved; however, opioid consumption was escalated to 60 mg of oral morphine since a month after the block. At the time we write the letter the patient persists with disease progression, mild pain and a MEDD of 90 mg and she consented to publish her case.

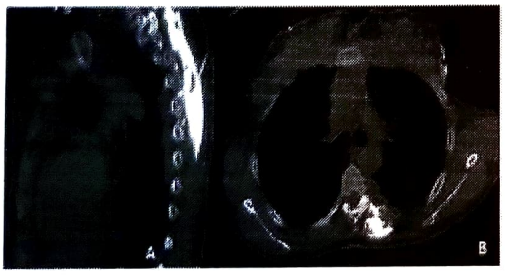

Figure 1 (A) Sagital CT view showing distribution of phenol along six vertebral levels. (B) Axial CT view demonstrating phenol and contrast medium distribution into intervertebral foramina and paravertebral space.

Neuropathic pain questionnaires are important in evaluating cancer pain,[3] since opioids are not first line agents to treat this disease. Our patient denied positive neuropathic symptoms and only was treated with opioids and non-opioid analgesics only.

This case illustrates the potential impact of ESPB as an alternative in cancer-related intractable pain although the duration of therapeutic benefit was limited even with the neurolytic agent phenol. Definitive evidence of efficacy and safety of ESPB as a neurolytic block for malignancy pain will require randomized clinical trials. Clinicians are worried in injecting neurolytic agent subcutaneously or into fascia planes. Our case illustrates the possible safety of injecting phenol into an interfascial block.

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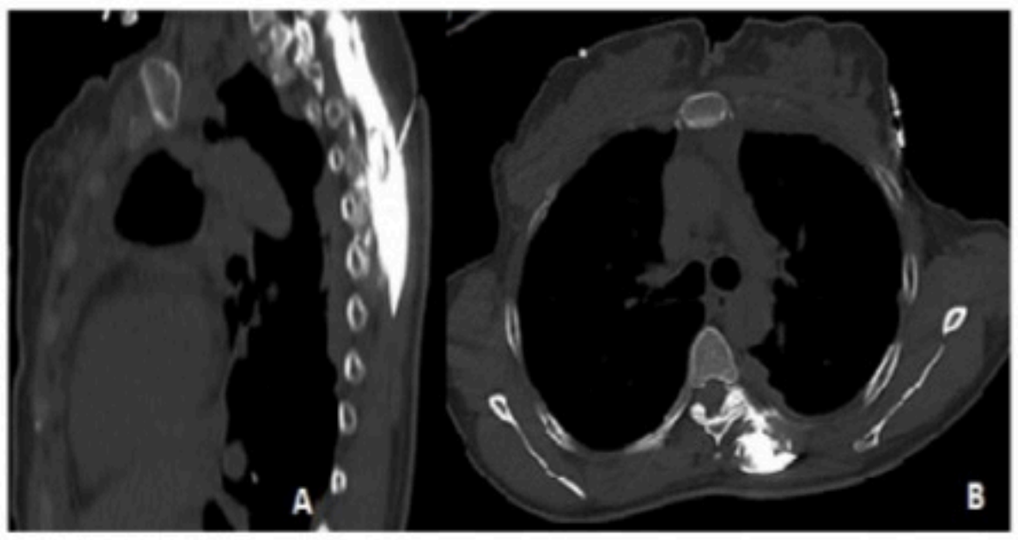

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Competing interests None declared.

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