

Use of erector spinae plane block in the management of pain from metastatic cancer of the face in a terminally ill patient

Sir,

Pain in patients of head and neck cancer (HNC) is multifactorial and stellate ganglion block (SGB) may be indicated in advanced disease with neuropathic pain.^[1] We managed a case of advanced carcinoma of face with erector spinae plane block (ESPB) as an alternative that provided effective pain relief.

A 70-year weighing 36 kg male patient was referred to our pain relief service with severe pain in right side of face due to local metastasis resulted in large fungating growth of right side of face including right eye [Figure 1]. For his pain, he was taking injection paracetamol and tramadol (1 G + 50 mg) 8 hourly, tablet pregabalin 75 mg 12 hourly and amitriptyline 10 mg once at bed time through nasogastric tube; buprenorphine patch 10 µg/h or fentanyl patch 25 µg/h alternately and injection tramadol 50 mg IV bolus for breakthrough pain (he was advised morphine tablets through nasogastric tube which he discontinued due to intolerance). Complains were suggestive of neuropathic pain; however, SGB could not be

done because of abnormal anatomy of the region resulted from previous surgery on the neck (neovascularisation in the neck was observed during ultrasonography and no safe needle trajectory could be identified to reach SG). As an alternative, ultrasound guided right-sided ESPB at T2 (second thoracic vertebral level) was given with 15-mL 0.25% bupivacaine and 4-mg dexamethasone with due aseptic precaution and monitoring in operation room. After 25 min, patient showed significant pain relief (initial score was 10 and postprocedure pain was 3–4 on the scale of 0–10, where 0 = no pain and 10 = worst pain. After that, ESPB was repeated at same level using 18 G Touhy needle and a catheter was inserted [Figure 2a]. After giving 15-mL 0.25% bupivacaine bolus through catheter, an infusion of 0.08% bupivacaine, and fentanyl (1.66 µg/mL) at 6 mL/h was started by ambulatory multiflow volumetric pump (DOSI-FUSER® Leventon, S.A.U.).

To know the extent of local anaesthetic spread, 5-mL water soluble non-ionic contrast (Omnipaque-300) mixed with 0.5% bupivacaine was injected through catheter. Fluoroscopic [Figure 2b] and computerised tomography (CT) scanning showed spread of contrast from T5 to C6 (sixth cervical vertebral) level including anterolateral spread towards body of seventh vertebra encroaching neural foramina of C6 and C7 [Figure 2c and d]. This infusion was maintained for 44 days including home-based care for 11 days. Patient remains pain free during his treatment; however,



Figure 1: Photograph of patient showing extent of malignant growth succumbed to his advanced disease and died after 44th day of catheter insertion.

Pain management in advanced HNC may often require invasive procedures like intrathecal pumps or advanced neuro-ablative procedures such as neurolysis^[2] or radiofrequency ablation of stellate ganglion.^[3,4] Due to local tissue conditions, we were unable to do stellate ganglion block and because of financial constraints advanced interventions could not be utilised. However, we used the simple and innovative approach of ESPB based on observation where, ESPB has been used to manage chronic shoulder pain and relief is attributed to spread of local anaesthetic up to the C3 level in the vicinity of the neural foramina.^[5] In our case, the highest spread was up to C6 level [Figure 2b-d] and patient had excellent pain relief with ESPB. We think that somatic pain relief could have been due to spread of local anaesthetic towards paravertebral space and neural foramina as seen in fluoroscopy as well as in CT images [Figure 2b-d]. Antero-medial spread at C6 and C7 could have reached to stellate ganglion and relieved his sympathetic pain [Figure 2c and d].^[1]

The ESPB has been considered a simple block and it has shown effective pain relief in many situations of acute as well as chronic pain.^[6] In a patient suffering with severe pain due to fungating growth of face, thoracic ESPB given at T2 level provided effective pain relief in a multimodal pain regimen. It is speculated that pain relief occurred due to spread of local anaesthetic on to the spinal nerves and stellate ganglion as there was a radiological evidence of contrast spread to neural structures.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the

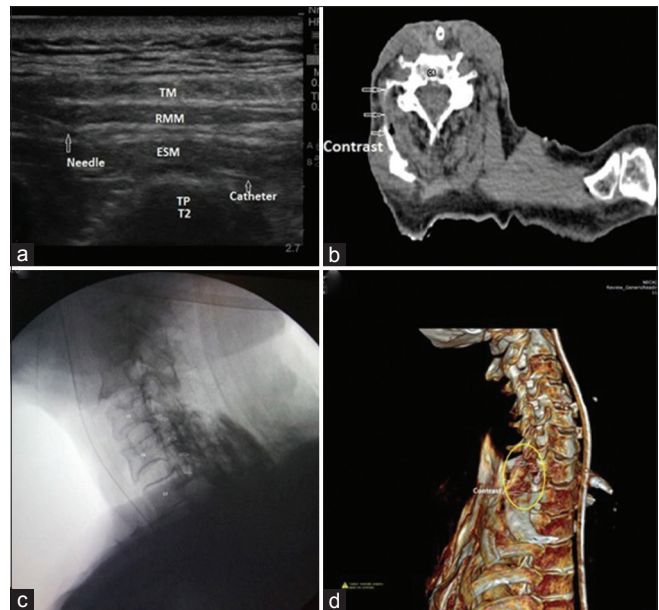


Figure 2: (a) Ultrasound image showing catheter insertion during erector spinae plane block, (b) x-ray image of contrast spread, (c) CT image of contrast spread (transverse section at C6 level), (d) reconstructed 3D CT image showing contrast spread to wards antero-lateral side of C6 and C7 vertebra

patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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Access this article online	
Quick response code	Website: www.ijaweb.org
	DOI: 10.4103/ija.IJA_205_19

How to cite this article: Jadon A, Rastogi S, Sinha N, Amir M. Use of erector spinae plane block in the management of pain from metastatic cancer of the face in a terminally ill patient. *Indian J Anaesth* 2019;63:675-7.

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