RACK approach to erector spinae plane block

Madam,

Erector spinae plane (ESP) block has emerged as a novel, simple, easier, and effective regional analgesia technique, with potential applications from acute postoperative pain to chronic pain, where a drug is injected in interfascial plane deep to erector spinae muscle. [1-6] It is hypothesized to spread close to ventral and dorsal rami of spinal nerves, with multidermatomal spread with a single injection, on the basis of cadaveric and contrast studies.[1,3-4] ESP block gives a blockade comparable with paravertebral block (PVB) without risk of pleural injury. [5] ESP block eliminates risk of hypotension of epidural analgesia, epidural spread and vascular puncture of PVB, their procedural complications because of vicinity to spinal cord and pleura, respectively, and pneumothorax associated with intercostal nerve block and interpleural block. [7,8] ESP block was first described by Forero et al. for thoracic analgesia but since then it has been used for many different indications where PVB and epidural anesthesia are currently the main regional techniques.^[1-3]

Forero et al's parasagittal technique of ESP block needed the patient to be in sitting position and ergonomically sometimes challenging for the operator. The spread of drug in the muscle layers might also mimic the splaying of the layers, resulting in an inadequate blockade. We have been practicing a transverse approach to the ESP block called the RACK approach. The approach involves identifying the interspinous view of the spine using a low-frequency probe of ultrasound [Figure 1], identifying the articular process, posterior complex, and transverse process lying in a single line, mimicking like lying on a rack (RACK) [Figure 2]. The probe here is slid to ipsilateral side to insert needle in-plane to target



Figure 1: Curvilinear probe position

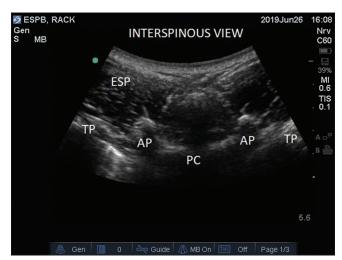


Figure 2: Interspinous view

the area below ESP muscle, above the lateral edge of the transverse process (target point), and the drug is injected to split and raise the ESP muscle complex [Figure 3].

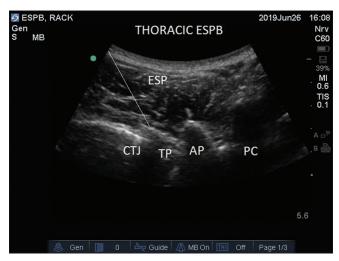


Figure 3: Thoracic ESP approach

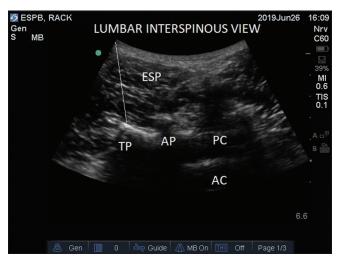


Figure 4: Lumbar ESP approach

The lumbar ESP block can also be blocked in a similar way [Figure 4]. The advantages of this approach being ease of administration ergonomically, in-plane needling can be done with ease, in-plane insertion of catheters is also easy, and last but not the least, lateral most part of the transverse process adjacent to the costotransverse junction is identified which is the ideal target point for ESP block.

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Conflicts of interest

There are no conflicts of interest.

Ritesh Roy, Gaurav Agarwal, Chandrasekhar Pradhan, Debasis Kuanar

Department of Anaesthesia and Pain Management, CARE Hospitals, Bhubaneswar, Odisha, India Address for correspondence: Dr. Gaurav Agarwal,
Department of Anaesthesia and Pain Management, CARE Hospitals,
Bhubaneswar, Odisha, India.
E-mail: dr.agarwalgaurav@gmail.com

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