Sir,

There is significant pain after thoracotomy surgery because of pleural and muscular damage, ribcage disruption, and intercostal nerve damage during surgery, which if not effectively managed lead to various respiratory complications delaying the discharge. For perioperative analgesia, although thoracic epidural has long been used as a standard technique, thoracic paravertebral block (TPVB) has also claimed to be safe, effective, and noninferior. There is fewer occurrences of side effects such as hypotension, urinary retention, nausea and vomiting. With the advent of ultrasound (US), performance of TPVB has been reemerged; however, the above side effects could not be nullified and there are reports of intrathoracic migration of catheter also.

Erector spinae plane block (ESPB), recently developed as a novel technique, has been shown to provide effective analgesia for both thoracic and abdominal surgeries in a few patients, although there are limited data in pediatric patients. From our experience of ESPB in breast surgeries and adult thoracotomy, and having been able get adequate analgesia compelled us to perform this block in pediatric thoracotomy.

Here we report the use of the US guided ESPB with catheter for continuous local anesthetic (LA) infusion. Written informed assent as well as consent from parents of 12 year old boy posted for left decortication was obtained for regional block and also for publication without revealing the identity. He had no other systemic illnesses, and his airway examination was normal.

After induction of general anesthesia (GA), the child was positioned in the right lateral decubitus position, and ESP block was performed as described by Forero et al with an 18 G Tuohy needle [Figure 1a]. Ten milliliter of 0.25% of ropivacaine was deposited in the fascial plane deeper to erector spinae muscle, after confirming with hydrodissection with 0.5 ml of saline. Following the LA injection, the catheter was introduced and placed in the same fascial plane and was secured with adhesive bandage [Figure 1b].

On skin incision, there was rise in heart rate more than 20% from the baseline, which got settled with IV fentanyl 0.5 mcg/kg. He also received IV paracetamol 20 mg/kg. Rest of the intraoperative course was uneventful and was extubated on the table. He was observed for postoperative pain using visual analog scale (VAS) score.
and analgesic requirement for first 24 h. The patient was assessed to be pain free with (VAS < 4) for 2 h. Continuous LA (0.2% ropivacaine) infusion through the catheter was then commenced, at a rate of 4 ml/h for 24 h along with supplemental analgesia with paracetamol 20 mg/kg IV 8 hourly. VAS scores at 0, 1, 2, 4, 6, 12, and 24 h were 0, 2, 4, 3, 4, 3, and 4, respectively. No further opioids or nonsteroidal anti-inflammatory drugs were administered during the continuous LA infusion period, postoperatively. LA infusion was discontinued, and catheter was removed after 24 h.

Although neuraxial mode of analgesia is the standard technique of choice for thoracotomy, its usage in pediatric population poses a safety concern. Advancement of caudal catheter to thoracic space carries a chance of coiling and migration. The risk of performing thoracic epidural under GA outweighs the benefits and obviously warrants an experienced anesthesiologist to do that. With advent of US, truncal block are getting re-emerged as safe alternatives in such age group. TPVB has already been used for long time for thoracotomy with excellent perioperative analgesia; however, continuous catheter LA infusions sometimes not predictable, as there are case reports of coiling, neuraxial migration, and intrathoracic placement. It is too early to predict; however, ESP catheter might solve the above issues to some extent. There are few evidence of effectiveness of this block in different surgeries both in adult and pediatric population, however, limited in continuous catheter technique in pediatric age group.

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

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Conflicts of interest
There are no conflicts of interest.

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