An alternative technique for assisting continuous catheter placement

Dear Editor,

In the current practice of perioperative analgesia, the use of ultrasound has revolutionized regional block interventions. Single-shot blocks given before incision provides excellent intraoperative and early postoperative analgesia, however, a few surgical procedures demand a long-term analgesia that warrants a continuous catheter placement. It provides analgesia for a longer period, decreases opioids consumption and thus assists in early mobilization and rehabilitation.[1,2] The success of regional block using continuous catheter requires correct placement of introducing needle and also best possible catheter tip position in the required plane.[2] The existing catheter system has its limitations, like catheter, can only be placed after detaching the drug injection port, which leads to increased procedure time. At times, it becomes more difficult, if further hydro-dissection is needed for negotiating the catheter.

In resource constraint settings or due to higher cost factors, a standard epidural catheter is preferred for these purpose. However, an extension line is needed for drug injection and catheter placement can be done only after the same is disconnected from the needle. We faced similar difficulty during placement of the catheter in the erector spinae plane during negotiation as space got collapsed after disconnection and then we had to reattach the extension line and administer saline for hydro-dissection. This sort of problem can be addressed if simultaneous bolus drug injection and catheter negotiation could be done at the same time. We suuccssfully resolved the issue, by using cut hub end of the needle (18G introducer needle from central venous cannulation (CVC) set (Certofix Trio V 720; B Braun, Melsungen AG, Germany) as connector between extension line and Tuohy needle, which has a side port with one-way valve for guidewire insertion [Figure 1]. The connector was attached to the hub of Tuohy needle. The straight port was then utilized for drug administration through an extension line and a catheter was introduced through the side port. Now the needle with the catheter *in situ* was punctured in plane to the ultrasound probe for performance of the block.

Contiplex® FX (B. Braun, Melsungen, Germany) having a side port valve designed to help catheter placement, where the side port with extension line is utilized for saline or drug injection and catheter introduction can be done through the straight port with valve. However, unavailability at a certain time warrants an alternative technique.

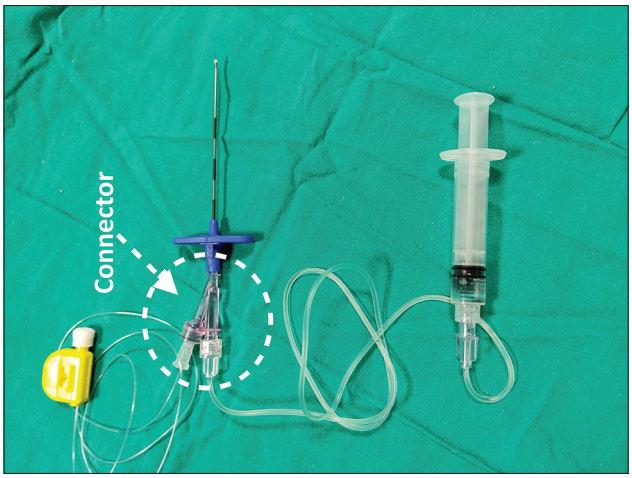

Figure 1: Cut hub end of 18G introducer needle from CVC set along with Tuohy needle with catheter *in situ* assembly

In such continuous set, the catheter can be advanced immediately after the bolus dose or it can be done simultaneously along with bolus administration once the space has opened up and the remaining drug will be administered without disturbing the catheter. There is another advantage is that the proper catheter placement can be ensured, by injecting saline through the catheter with still the needle *in situ*.

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Conflicts of interest

There are no conflicts of interest.

Debesh Bhoi, Poonam Rani, Renu Sinha, Thamizharasan Datchinsmourthy

Department of Anaesthesia, All India Institute of Medical Sciences, New Delhi, India

Address for correspondence: Dr. Debesh Bhoi, Department of Anaesthesiology, Pain Medicine and Critical Care, Room No. 5012, 5th Floor, Teaching Block, All India Institute of Medical Sciences, New Delhi, India.
E-mail: debeshbhoi@gmail.com

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