# Emerging options for analgesia in posterior cervical spine surgery

Sir,

Posterior cervical spine decompression and instrumentation is associated with severe pain and multimodal analgesia is the norm in these cases. Here we describe our experience with the multifidus cervicis plane (MCP) block in a case of posterior cervical spine surgery. A 69-year-old man weighing 66 kg was posted for $C_3$–$C_6$ laminectomy and fusion. Under standard monitoring, general anaesthesia was administered with Inj. fentanyl 100 µg, Inj. propofol 100 mg and intubated under Inj. atracurium 35 mg. He was then positioned prone with the help of a horse-shoe head rest. A local anaesthetic mixture of 40 mL of 0.375% ropivacaine and 4 mg dexamethasone was prepared. Under sterile precautions, a high-frequency linear probe was placed transversely in midline at the level of $C_5$ to identify the spinous process and then moved laterally to identify the paraspinal muscles. A 5 cm, 22 G nerve stimulator needle was inserted in the lateral to medial direction into the plane between multifidus cervicis and semispinalis cervicis [Figure 1]. Hydrodissection was used to identify the correct plane, following which 20 mL of the prepared drug was injected and the block was repeated on the opposite side. Surgical incision did not show rise in pulse and blood pressure indicating good analgesia. Routine protocol of giving Inj. morphine 0.1 mg/kg was skipped and only Inj. paracetamol 1 gm was given to supplement analgesia. The surgery took two and half hours and was completed uneventfully. After extubation, patient was very comfortable. His pain was assessed using the visual analogue scale and the scores were below 4 in the first 24 h. Postoperatively, he was maintained on Inj. paracetamol 1 gm eighth hourly. Routinely, postoperative analgesia is managed in cervical spine surgeries with tramadol, diclofenac and opioids but this patient did not require any rescue analgesic.

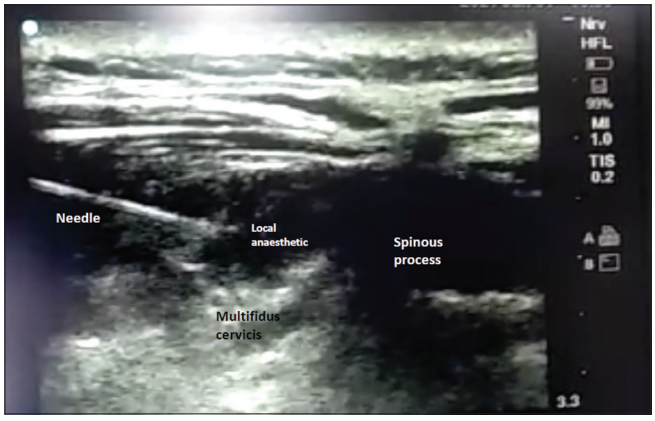


**Figure 1:** The multifidus cervicis plane block

The thoracolumbar interfascial plane (TLIP) block has been found to be effective in providing analgesia in posterior lumbar spine surgeries.[1] The MCP block is a paraspinal interfascial plane block analogous to the TLIP block, intended for cervical spine. The MCP block for posterior cervical spine surgery was described by Ohgoshi *et al*.[2] The drug is deposited in the fascial plane between the multifidus cervicis and semispinalis cervicis muscles and acts on the dorsal rami of the spinal nerves. A modification of this block, the cervical interfascial plane (CIP) block was also demonstrated.[3] CIP block is associated with a risk of puncturing the accompanying artery of dorsal ramus due to the medial to lateral needle orientation in CIP block. With MCP block, the needle orientation is from lateral to medial thereby conferring lesser risk of arterial puncture, but there is a higher risk of inadvertent intrathecal entry.[4] Erector spinae plane (ESP) block has also been utilised for providing analgesia in cervical spine surgeries. The TLIP and MCP blocks provide more focussed analgesia for spine surgeries when compared to ESP block and are associated with lesser chance of epidural spread. MCP block does not interfere with the intraoperative neurophysiologic monitoring which is often performed in spine surgeries.[5] Dexamethasone has been proven to be a useful adjunct in fascial plane blocks.[6] Further research is needed to confirm the safety profile and utility of this block.

### Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the legal guardian has given his consent for images and other clinical information to be reported in the journal. The guardian understands that names and initials will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

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Nil.

### Conflicts of interest

There are no conflicts of interest.

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