

## Reply

### Reply to comment on 'Postoperative analgesic efficacy of ultrasound-guided, low-volume C5–6 root block in combination with erector spinae plane block in complex shoulder surgeries'

We appreciate the interest shown in our case series and present clarifications.<sup>[1,2]</sup> The authors suggest a reference where the minimum effective volume at the C5–C6 nerve root level is as low as 0.9 ml of 0.5% ropivacaine.<sup>[3]</sup> However, it is important to note that the

duration of analgesia was not formally assessed beyond the first 30 min after surgery, thereby making the longevity of the analgesic effect of 0.9 ml questionable. The authors hypothetically concluded that 0.375% ropivacaine can cause 50% phrenic nerve paresis. Several other factors, such as needle tip position, speed of injection, compliance of the interscalene groove, dynamic scan cephalad and caudad during injection, and neck circumference of the patient, are to be considered when contemplating drug spread.<sup>[4]</sup> Contrast studies have already been conducted in this area.<sup>[5]</sup>

We, too, concur that cervical root blocks should be categorised under advanced blocks. All authors in this study practise C5–6 low-volume blocks routinely for clavicle and shoulder surgeries.

We strongly disagree with using suprascapular and thoracic erector spinae plane (ESP) blocks as an alternative since the blockade of lateral pectoral, axillary and subscapularis nerves that innervate the shoulder joint would not materialise with either of the blocks. Studies discussed are conducted for shoulder dislocations in the emergency department, which are not comparable to complex shoulder surgeries.<sup>[6]</sup>

This case series involves two blocks: one for intraoperative surgical anaesthesia and the subsequent one to assess its ability to enhance postoperative analgesia.<sup>[2]</sup> Therefore, our study was not targeted for randomisation, thus limiting the sample size. Small sample size results are always to be taken cautiously and require further comparative studies as we have stated.

Preoperatively, the C5–6 ventral rami block was administered, and sonographic diaphragmatic assessment was performed. All patients were positioned in lateral position for surgery. Postoperative thoracic ESP block was administered in the same position (lateral) at T2 (after dressing), followed by diaphragmatic assessment 20 min post-extubation. Although we did not add perineural and interfascial plane adjuvants with ropivacaine, intravenous dexamethasone 6 mg is routinely injected for all nondiabetic patients. Unlike other studies, we have mainly performed ultrasound scanning to visualise the phrenic nerve and have done a diaphragmatic assessment of its involvement in the postoperative period. An attempt was made to identify the phrenic nerve before block on sonography, which was successfully noted in eight of 13 patients. This is to highlight that diaphragmatic involvement, devoid of any symptoms in healthy individuals should not make us complacent, as it may overtly manifest in patients with poor respiratory reserve/excursion. Our surgeons are in agreement with our administration of blocks and case management, demonstrating a good bond we share amongst ourselves leaving no room for the authors surprise!

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#### Conflicts of interest

There are no conflicts of interest.

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