

Surgical anaesthesia for scapular surgery in a patient with ipsilateral thoracic injury

Sir,

We read the letter titled ‘Scapular surgery under combined

thoracic paravertebral and interscalene blocks” in a recent issue of IJA,^[1] with great interest. We commend the authors’ effort and congratulate them for having done a scapular surgery solely using regional anaesthesia (RA) technique. As the authors precisely pointed out, whenever feasible, to avoid aerosol generation associated with general anaesthesia,^[2] RA approaches should be the techniques of choice in the context of the ongoing coronavirus disease (COVID)-19 pandemic.

Providing surgical anaesthesia for scapular surgeries using only RA technique is often difficult as the scapula receives complex innervation from the superficial cervical plexus, brachial plexus, and intercostal nerves. To formulate an appropriate RA plan for scapular surgery, we would like your readers to refer to an excellent educational review recently written by Sonawane and colleagues,^[3] where they described an algorithmic 'identify-select-combine' approach based on the dermatome, myotomes, and osteotomes involved during the surgical procedure.

We concur with the authors for using a thoracic paravertebral catheter to block the intercostal nerves supplying the scapular dermatome. However, to block the nerves supplying the scapular osteotomes and myotomes, i.e., the suprascapular (C5-C6), dorsal scapular (C5), upper and lower subscapular nerves (C5-C6), the authors have opted for ultrasound-guided (USG) interscalene block, using 15 mL of 0.25% bupivacaine. As the interscalene block is associated with the highest incidence of ipsilateral diaphragmatic palsy,^[4,5] we recommend the USG "Superior Trunk Block (STB)",^[6] especially when performed with the thoracic paravertebral block (which is associated with paralysis of segmental intercostal muscles). As the superior trunk constitutes the C5 and C6 ventral rami in a compact space, it does not necessitate a large volume of local anaesthetic as does the interscalene block. Besides, as the superior trunk is formed at a much lower level (the phrenic nerve is located far from the superior trunk on the anterior surface of the scalene anterior muscle at this level), the incidence of phrenic nerve involvement, and its associated incidence of hemidiaphragmatic palsy is considerably less.^[4,6] This is clinically relevant as these patients, similar to the patient managed by the authors, often present with associated thoracic injuries. By using USG STB, we can bring down the total volume of LA used and thereby possibly reduce the chance of complications secondary to hemidiaphragmatic palsy in this population

without compromising the quality of analgesia and surgical anaesthesia.^[4,6] Having said that, we thank the authors for their contribution and believe this communication will draw attention to the diaphragm sparing (or techniques with least incidence of diaphragmatic palsy) brachial plexus block techniques like STB and its clinical relevance, particularly when administered with the thoracic paravertebral block in the high-risk population.

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Conflicts of interest

There are no conflicts of interest.

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