Clavicle fractures are common injuries, and both the injury and fixation surgery can be associated with moderate to severe pain.<sup>1,2</sup> Adequate analgesia provision is desirable for improved patient satisfaction and early return to function. Regional anaesthetic techniques can be useful for analgesia provision and can be a viable option for surgical anaesthesia during fixation surgery for high-risk patients. However, this region has a complex innervation that remains a controversial subject.<sup>1-3</sup> Varying fracture locations and injury patterns add further complexity. Current literature comprises heterogeneous studies, and several different regional anaesthetic approaches and combinations of these approaches have been previously described.<sup>4</sup> These include the cervical plexus, selective supraclavicular nerve, superior trunk, and interscalene blocks.<sup>4</sup> Additionally, the widespread adoption of ultrasound-guided regional anaesthesia has led to the emergence of interfascial techniques, such as the clavipectoral fascial plane block.<sup>5</sup>

The regional anaesthetic of choice depends largely on whether surgical anaesthesia is required or if analgesia provision without anaesthesia is sufficient for the clinical context. Several studies have demonstrated the reliability of regional anaesthesia as a sole anaesthetic technique for clavicle fixation surgery.<sup>4,6,7</sup> The option to avoid general anaesthesia is attractive, as patients with clavicle fractures may have concomitant chest or pulmonary injuries. The combination of a cervical plexus block and interscalene brachial plexus block was previously regarded as the technique of choice if surgical anaesthesia is desired.<sup>4</sup> If analgesia desired as part of a general anaesthetic, a superficial/intermediate cervical plexus block or supraclavicular nerve block is may suffice. Although the combination of cervical plexus block (superficial/intermediate) and interscalene brachial plexus block has previously been the technique of choice for surgical anaesthesia provision, it has a propensity for undesirable motor effects such as hemidiaphramatic paresis; which can be mitigated by the use of a clavipectoral fascial plane block with or without a cervical plexus block.<sup>8</sup> Clavipectoral fascial plane block may be a promising new tool in the anaesthesiologist's armamentarium for anaesthesia and analgesia provision in clavicle fractures and fixation surgery.

## REFERENCES

- 1. Tran DQ, Tiyaprasertkul W, González AP. Analgesia for clavicular fracture and surgery: a call for evidence. Reg Anesth Pain Med. 2013 Nov-Dec;38(6):539-43. doi: 10.1097/AAP.0000000000012.
- 2. Valdés-Vilches LF, Sánchez-del Águila MJ. Anesthesia for clavicular fracture: selective supraclavicular nerve block is the key. Reg Anesth Pain Med. 2014 May- Jun;39(3):258-9. doi: 10.1097/AAP.00000000000057.
- 3. Moriggl B. ESRA19-0712 Clavicle innervation and implications for regional anaesthesia. Reg. Anesth. Pain Med. 2019;44:A63-A64.
- 4. Lee CCM, Beh ZY, Lua CB, Peng K, Fathil SM, Hou JD, Lin JA. Regional anesthetic and analgesic techniques for clavicle fractures and clavicle surgeries: Part 1- A scoping review. Healthcare (Basel). 2022 Aug 7;10(8):1487. doi: 10.3390/ healthcare10081487.
- 5. Valdés-Vilches L. Analgesia for clavicular surgery/fractures. Symposia 01: postoperative analgesia for orthopedic upper and lower limb surgery; proceedings of the symposium conducted at the 36th annual European Society of Regional Anaesthesia and pain therapy (ESRA) Congress; Lugano, Switzerland. 13–16 September 2017.
- 6. Arjun BK, Vinod CN, Puneeth J, Narendrababu MC. Ultrasound-guided interscalene block combined with intermediate or superficial cervical plexus block for clavicle surgery: a randomised double-blind study. Eur J Anaesthesiol. 2020 Nov;37(11):979-983. doi: 10.1097/EJA.00000000001300.
- 7. Zhuo Q, Zheng Y, Hu Z, Xiong J, Wu Y, Zheng Y, Wang L. Ultrasound-guided clavipectoral fascial plane block with intermediate cervical plexus block for mid- shaft clavicular surgery: a prospective randomized controlled trial. Anesth Analg. 2022 Sep 1;135(3):633-640. doi: 10.1213/ANE.00000000005911.
- 8. Abdelghany MS, Ahmed SA, Afandy ME. Superficial cervical plexus block alone or combined with interscalene brachial plexus block in surgery for clavicle fractures: a randomized clinical trial. Minerva Anestesiol. 2021 May;87(Epub 2021 Feb 16).