


Towards a truly multimodal pain regimen: putting locoregional analgesia in the acute care surgeon's toolkit

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The difficulty in adequately treating the pain and clinical sequela from rib fractures in patients with acute, traumatic chest wall injuries can be immense. In particular, older adults are more susceptible to many of the negative effects of systemic analgesic medicines, and it has been well established that rib fractures confer a disproportionate share of morbidity and mortality to this population.¹ Sadauskas *et al*² have conducted a prospective cohort trial establishing that serratus anterior plane blocks (SABP) performed in the emergency department can be a viable component of a multimodal pain regimen for patients with acute rib fractures, and are worthy of consideration for inclusion in the toolkit of the acute care surgeon.

It should be acknowledged that the overall evidence base for SABP is thin. The majority of data thus far reported about this intervention is from small series and case reports,^{3–5} and the accompanying article by Sadauskas *et al* does indeed include only a small number of patients. This is not to say that this work does not deserve attention and dissemination. What is striking about this article is not the improvement in self-reported pain scores, nor the slight increase in incentive spirometry values that were observed in the intervention group, though these are potentially clinically meaningful outcomes. What this article helps demonstrate is the feasibility of SABP becoming a more routine component of care provided to patients with rib fractures. This cohort included 12 different SABP providers, 10 of whom were resident physicians. Though these authors were limited by availability of SABP-trained staff to supervise their intervention, it is intriguing to imagine that this and other ultrasound-based regional nerve blocks could become a part of the toolkit that acute care surgeons rely on to provide true multimodal pain regimens to patients. Furthermore, could we imagine a time when training in these and other ultrasound-based techniques becomes a component of the curriculum for the fellowship training of acute care surgeons? Rather than rely solely on our emergency medicine or anesthesia colleagues, adopting a broader use of ultrasound-based regional analgesic options offers our patients with chest wall injury true access to multimodal pain control regimens, and may

hopefully improve outcomes and lessen the negative sequelae of opioid pain medicines.

The authors' conclusions deserve echoing: yes, we do need larger, prospective studies that can better demonstrate the true clinical impact of SABP and other locoregional analgesic techniques. And we also should truly embrace the potential that locoregional analgesic techniques offer and adopt this and similar techniques into the routine care of patients with chest wall injuries.

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REFERENCES

- 1 Bulger EM, Arneson MA, Mock CN, Jurkovich GJ. Rib fractures in the elderly. *J Trauma* 2000;**48**:1046–47;
- 2 Sadauskas V, Brunson D, Choi J, Spain DA, Quinn J, Duanmu Y. n.d. The serratus anterior plane block improves pain and incentive spirometry volumes in trauma patients with multiple rib fractures: a prospective cohort study.
- 3 Snyder R, Brillhart DB. Pain control and point-of-care ultrasound: an approach to rib fractures for the austere provider. *J Spec Oper Med* 2023;**23**:70–3.
- 4 Katou R, Mano T, Masuda T. Serratus anterior Fascia plane block for pain control in patients with multiple rib fractures. *J Phys Ther Sci* 2023;**35**:673–7.
- 5 Kring RM, Mackenzie DC, Wilson CN, Rappold JF, Strout TD, Croft PE. Ultrasound-guided serratus anterior plane block (SAPB) improves pain control in patients with rib fractures. *J Ultrasound Med* 2022;**41**:2695–701.



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