Alcohol Neurolysis of the Clavipectoral Fascial Plane for Palliative Clavicular Pain

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Case

- A 60-year-old woman with COPD, prior upper lobectomy, and stage IV lung adenocarcinoma metastatic to bone developed a pathologic displaced left midshaft clavicular fracture managed nonoperatively.
- Due to concern that proximal cervical nerve root blockade could produce ipsilateral diaphragmatic dysfunction, ultrasound-guided clavipectoral fascial plane block (CPB) and superficial cervical plexus block (SCPB) were planned.
- A diagnostic block using 8 mL 0.25% bupivacaine with 40 mg methylprednisolone divided between the targets produced excellent temporary analgesia.
- Neurolysis was performed 1 week later using 8 mL 0.25% bupivacaine with 3 mL alcohol at the clavipectoral fascial plane and 1 mL at the superficial cervical plexus. Alcohol neurolysis for this indication was an off-label application.

Clinical Course and Outcomes

- Her pain remained severe (8-9/10) despite multimodal therapy including methadone, hydromorphone, oxycodone, ketamine, acetaminophen, and topical anesthetics.
- The initial combined diagnostic CPB and SCPB produced at least one hour of near-complete analgesia, followed by moderate residual benefit over subsequent days.
- After neurolysis, she reported improved pain control, with pain scores consistently below 3/10 from her clavicle. Two days later, she denied pain and declined ketamine because she did not feel she required additional sedating analgesics.
- Four days after the neurolysis, a cerebellar stroke led her family to elect comfort measures only, precluding reliable assessment of the duration of neurolytic benefit.

Images



Figure 1. Ultrasound image of a superficial cervical plexus block. Source: Ege et al., Interv Pain Med, 2022, CC BY 4.0.

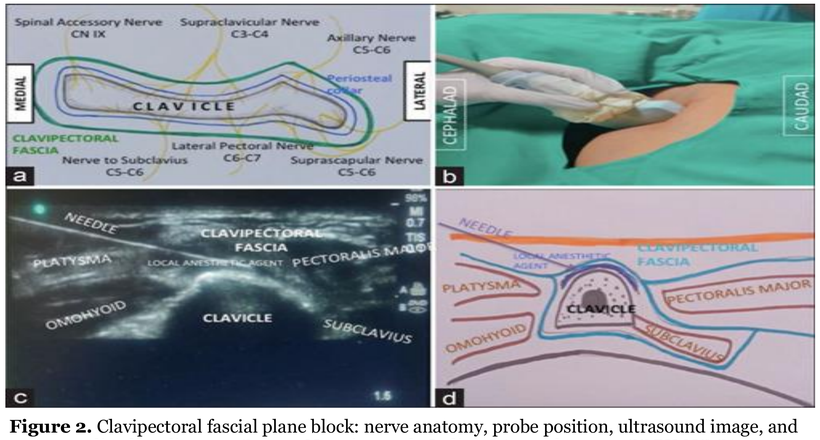


Figure 2. Clavipectoral fascial plane block: nerve anatomy, probe position, ultrasound image, and corresponding line diagram. Source: Natrajan et al., Indian J Anaesth, 2023, CC BY-NC-SA 4.0.



Discussion

- Pathologic clavicular fractures from metastatic disease can produce severe pain while leaving frail patients with few surgical options.
- Conventional brachial plexus block leads to loss of function in the arm in addition to diaphragmatic paralysis.
- A 2026 meta-analysis found CPB provides surgical anesthesia comparable to interscalene block for midshaft clavicular surgery, with similar success and onset, but with 0% hemidiaphragmatic paralysis versus 50–71% and less upper-extremity motor blockade.
- This combined CPB-SCPB neurolysis approach may offer a diaphragm-sparing palliative analgesic strategy.
- Chemical neurolysis for cancer-related pain has not been reported. This technique warrants further study as a palliative option.

Conclusion

Alcohol neurolysis of the clavipectoral fascial plane and superficial cervical plexus was followed by improved pain control in a patient with severe cancer-related clavicular fracture pain and advanced pulmonary disease. *To our knowledge, chemical neurolysis at this site has not been reported before, and its potential diaphragm-sparing profile warrants further study as a palliative option.*

References

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