



PAIN MANAGEMENT 1st course



Sawa University

College of health and medical techniques

Department of Anesthesia

Fourth stage

- جامعة ساوة الاهلية
- كلية التقنيات الصحية والطبية
- قسم تقنيات التخدير
- المرحلة الرابعة

lecture 9

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Week 9 Lecture

Pain Management Procedures
for Neck Pain and Chest Pain

By

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Neck Pain: Etiology Overview

- Cervical facet arthropathy.
- Cervical radiculopathy (disc, foraminal stenosis).
- Myofascial pain syndrome.
- Occipital neuralgia.
- Post-surgical pain.

Cervical Facet Joint Injection

- Indications: facet-mediated neck pain, diagnostic + therapeutic.
- Contraindications: infection, coagulopathy, unstable cervical spine.
- Technique: fluoroscopic guidance, intra-articular steroid + anesthetic.
- Complications: bleeding, transient neuritis, steroid reaction.

Medial Branch Block (MBB)

- Purpose: diagnostic test before radiofrequency ablation.
- Targets: medial branches innervating cervical facet joints.
- Technique: fluoroscopy with small-volume local anesthetic.
- Positive response → candidate for RFA.

Cervical Radiofrequency Ablation (RFA)

- Indications: chronic facet pain with positive dual MBB.(medial branch block)
- Procedure: thermal ablation of medial branch nerves.
- Duration of relief: 6–18 months on average.
- Complications: neuritis, numbness, ataxia (rare).

Epidural Steroid Injection (Cervical)

- Indications: radicular pain from disc herniation/stenosis.
- Approaches: interlaminar vs transforaminal.
- Benefits: reduction of inflammation and nerve root irritation.
- Risks: dural puncture, spinal cord injury (rare), vascular injection.

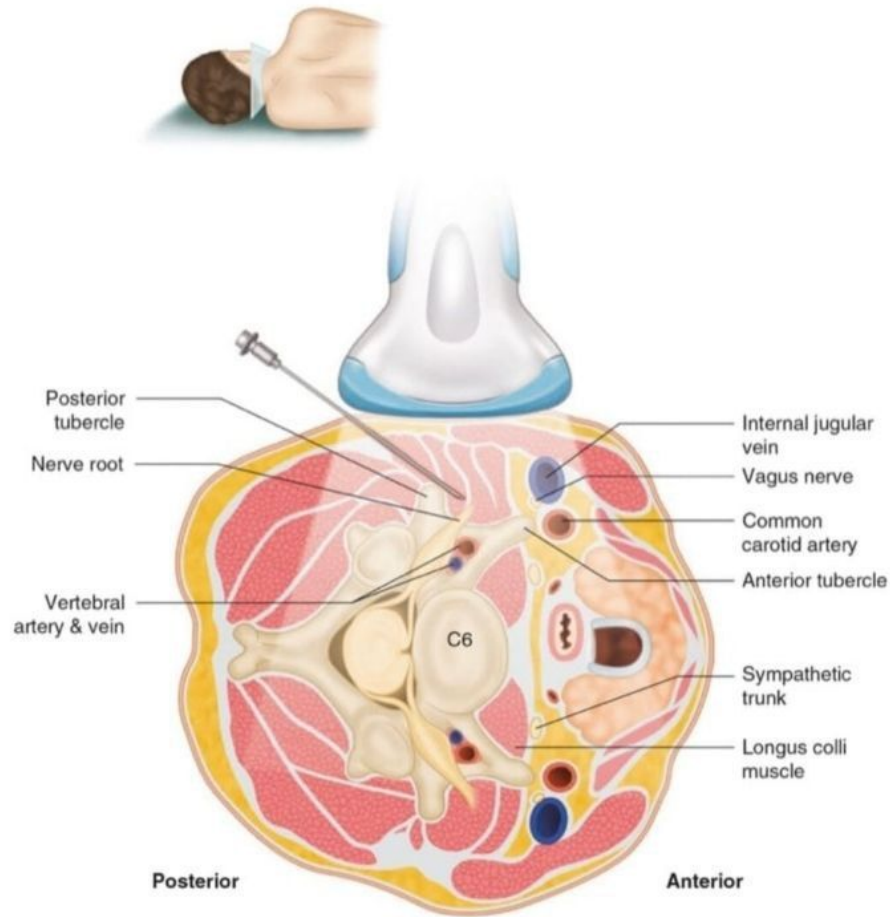
Trigger Point Injection (TPI)

- Indications: myofascial neck pain with palpable taut bands.
- Technique: local anesthetic dry/wet needling.
- Goal: inactivation of trigger point and pain reduction.

Dry Vs Wet needling

- Dry needling: inserting a needle into the trigger point without injecting medication.
- This mechanically disrupts the taut band and can break the spasm.
- Wet needling: same needle placement, but with injection of a medication (usually lidocaine or bupivacaine).
- Both methods aim to elicit a local twitch response, which confirms correct placement.

Neck injection



Imaging-guided injection



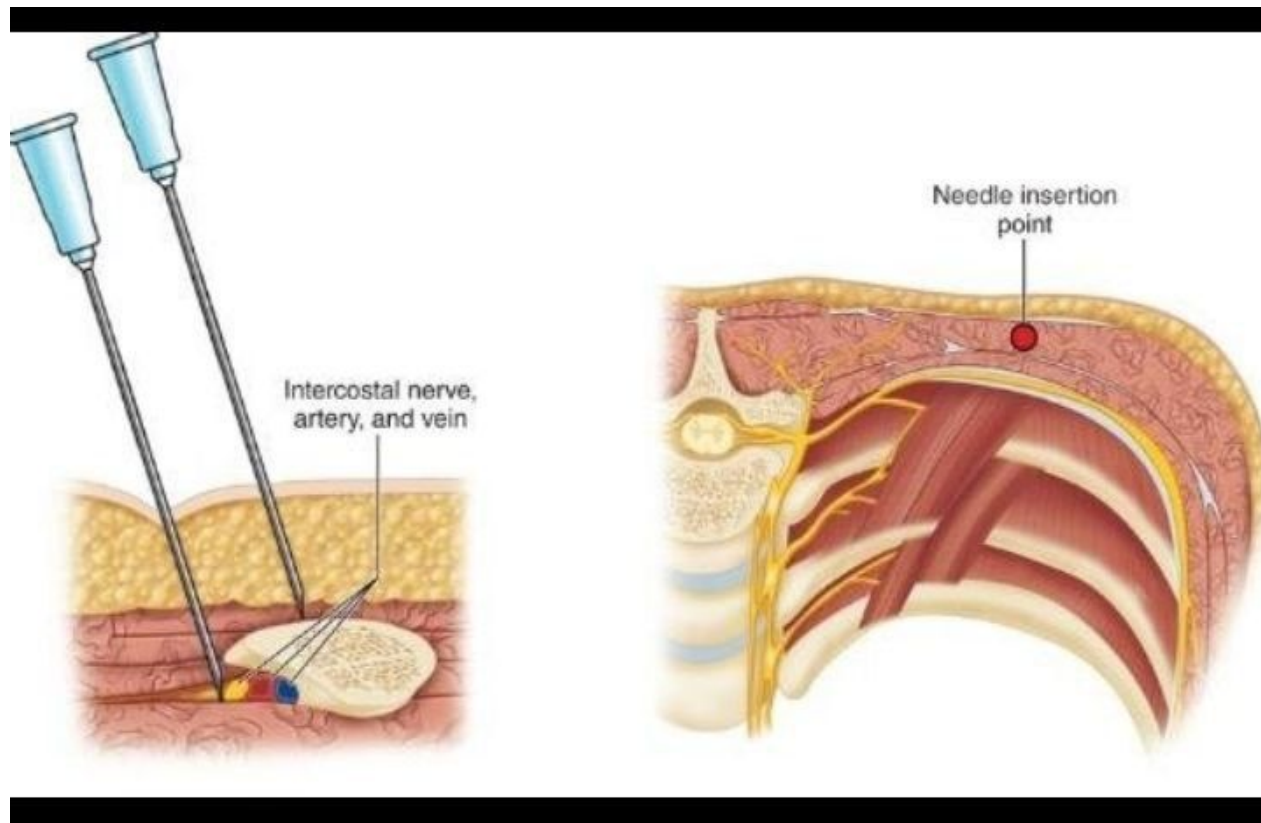
Chest Pain: Etiology Relevant to Interventions

- Intercostal neuralgia.
- Post-thoracotomy pain syndrome.
- Myofascial chest wall pain.
- Thoracic radiculopathy.

Intercostal Nerve Block

- Indications: intercostal neuralgia, rib fractures, post-thoracotomy pain.
- Technique: injection inferior to rib (neurovascular bundle).
- Complications: pneumothorax, vascular puncture, LA toxicity.

Intercostal injection



Paravertebral Block (Thoracic)

- Indications: unilateral chest wall pain, rib fractures, thoracic neuropathic pain.
- Anatomy: paravertebral space containing spinal nerves + sympathetic chain.
- Advantages: unilateral analgesia with fewer systemic effects.
- Risks: pleural puncture, hypotension, epidural spread.

Myofascial Chest Wall Pain Procedures

- Trigger point injections for pectoralis major/minor.
- Ultrasound guidance improves accuracy and safety.
- Useful for chronic localized chest wall pain.

Complications: General Considerations

- Infection, bleeding, nerve injury.
- Local anesthetic systemic toxicity (LAST).
- Inaccurate needle placement due to poor imaging.
- Importance of pre-procedure risk assessment.

Summary

- Neck and chest pain require targeted interventional strategies.
- Facet-based pain → MBB → RFA sequence.
- Radiculopathy → cervical epidural steroid injection.
- Chest wall pain → intercostal and paravertebral blocks.
- Understanding anatomy and imaging guidance is essential.