TRANSIENT HORNERS SYNDROME FOLLOWING ULTRASOUND GUIDED SUPERFICIAL CERVICAL PLEXUS BLOCK- A CASE REPORT

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Clinical Case

- 24-year-old woman with severe bilateral cervical paraspinal and occipital pain refractory to multiple interventions

Presentation

- Severe bilateral cervical paraspinal and occipital pain
- History of Ehlers-Danlos syndrome, fibromyalgia, migraine, and chronic facial/cervical pain
- Limited relief from multiple prior interventions
- Brain MRI showed no neurological abnormalities

Treatment

- Ultrasound-guided left superficial cervical plexus block
- 15 mL of 0.25% bupivacaine + 10 mg dex
- 22-gauge needle advanced in-plane beneath the posterior aspect of the SCM
- Injection performed incrementally under direct ultrasound visualization

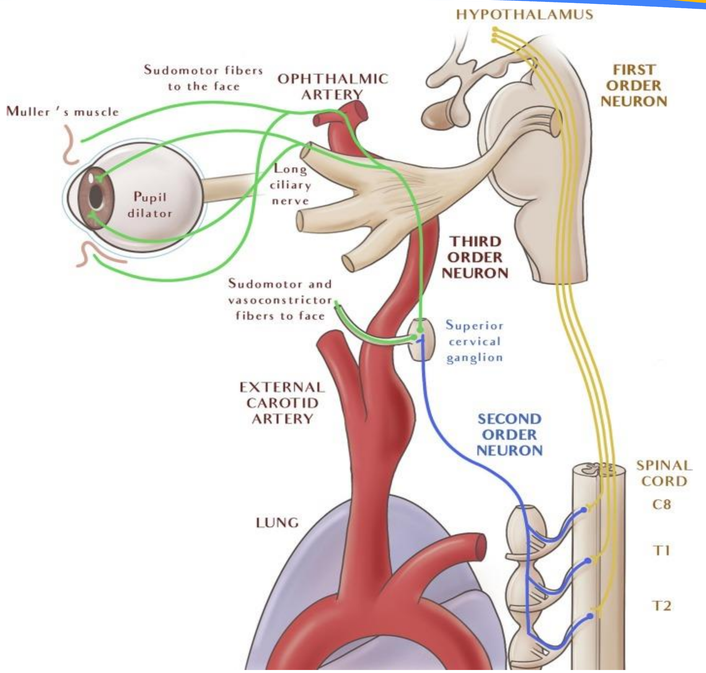


Figure: Pathway of Horner's syndrome

Outcome

- ~70% relief of cervical and occipital pain
- Developed ipsilateral ptosis, miosis, and hoarseness shortly after procedure
- Hemodynamically stable with no respiratory compromise or focal neurological deficits
- Symptoms resolved completely within 24 hours

Potential Mechanism of Horner Syndrome

- Horner syndrome occurs from sympathetic blockade involving the cervical sympathetic chain.
- Local anesthetic spread: Injectate can track beyond the intended superficial cervical plexus plane toward deeper cervical structures.
- Fascial-plane communication: The superficial cervical space can communicate with deeper fascial planes, allowing unintended spread [2].
- Greater needle depth: Deeper injection increases the likelihood of reaching the cervical sympathetic chain and phrenic nerve [1,3].
- Injectate volume matters: Higher volumes may increase cephalad/medial and deep spread beyond the target nerves.

References

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2. Pandit JJ, Dutta D, Morris JF. Spread of injectate with superficial cervical plexus block in humans: an anatomical study. Br J Anaesth. 2003;91(5):733-735. doi:10.1093/bja/aeg250.
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