Unilateral Horner's Syndrome Following Labor Epidural Placement

Chelsea Skinner, MD
Loni Kreger, MD
Emmarie Myers, MD

Cleveland Clinic

Background

Horner's syndrome: disruption of oculosympathetic pathway → ptosis, miosis, anhidrosis

Estimated incidence: 1 in 6,700 – 8,900 labor epidurals

Pathophysiology:

- Cephalic spread of local anesthetic to oculosympathetic fibers (T1-T2)
- More common in obstetric patients due to anatomical changes of pregnancy
- May reflect subdural or partial intrathecal spread
- Can be associated with other neurologic findings (e.g. upper extremity weakness, hoarseness, facial sensory changes)
- Typically transient and benign, resolving as the block recedes
- Hemodynamic instability is uncommon, but may occur if cardiac sympathetic fibers are affected

Case

Patient: 29-year-old G5P1 at 37w3d admitted for induction of labor for gestational hypertension

Epidural details: uncomplicated placement → initial bolus 5cc .125% bupivacaine + fentanyl + epi → PIEB infusion .0625% bupivacaine + fentanyl at 5cc q30min

Symptoms: 30 minutes after placement

- Hypotensive to 102/59 with fetal decelerations
- Left-sided Horner's syndrome – ptosis, miosis, conjunctival injection
- Bilateral T4-L3 sensory block with preserved motor function

Intervention:

- Phenylephrine administered with resolution of hypotension and decelerations
- Epidural infusion paused; catheter aspiration negative
- Patient declined catheter replacement due to rapid progression of labor
- Symptoms resolved as block receded to T10
- Infusion resumed at a reduced continuous rate with no recurrence of symptoms

Outcome: Vaginal delivery with appropriate pain control

Teaching Points

- Horner’s syndrome is a rare but recognized complication of labor epidurals
- Classic presenting signs are easily identifiable but easily missed
- Neurologic manifestations are typically transient and benign
- Progression can lead to hemodynamic changes and fetal distress

Management Principles:

- Be attentive to the subtle neurologic signs of Horner’s syndrome when monitoring patients with labor epidurals, especially those with hypotension
- If identified, consider catheter replacement and/or reduction in epidural infusion
- Closely monitor for changes in hemodynamics or fetal heart tracing