

Horner syndrome following bolus low dose epidural analgesia for labor

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To the Editor:

We report herein a case of Horner syndrome following bolus low dose epidural analgesia for labor and vaginal delivery. Although benign and transient, Horner syndrome may be distressing for the patient and confusing on diagnostic approach.

A 27-year-old, 68-kg, 161-cm, ASA I primigravida presented in labor at 39 weeks of gestation. Epidural analgesia was provided upon request when the cervix was dilated to 4 cm. With the patient positioned in the left lateral decubitus position, a 18-gauge Tuohy needle was inserted at the L3–L4 intervertebral space; the epidural space was found using the loss-of-resistance technique. A polyamide catheter was easily introduced and placed at the 11-cm catheter mark. A test dose of 2.5 ml 2 % lidocaine was injected. After catheter placement the patient was turned supine with left uterine displacement and was given 8 ml ropivacaine 0.2 % and 50 µg fentanyl. A sensory block to T9 was established a few minutes later. Thirty minutes from the epidural bolus, the patient complained of numbness over the right side of her face and heaviness in her right eyelid. On physical examination, the patient was awake and alert. No signs of hypotension, bradycardia, or desaturation were observed. Right-sided ptosis and miosis were noted; there were no other sensory or motor deficits,

and further neurological examination was unremarkable. During this period, fetal monitoring showed no decelerations or bradycardia. Forty minutes after the initial epidural injection, the patient's symptoms were completely resolved and labor progressed. The same initial bolus dose was repeated and was given in small increments over a 10-min period under close monitoring. Right-sided Horner syndrome developed once again and resolved after approximately 40 min. During the same time, labor progressed uneventfully with vaginal delivery of a healthy male infant. As the patient requested further pain control for perineotomy repair, she was repositioned and then given 5 ml lidocaine 2 %. This dose was effective and was not associated with the development of Horner syndrome.

In this case there was no evidence of excessive blockade. Pregnancy venous congestion resulting in decreased epidural compliance and Valsalva maneuver during labor is not always the cause of Horner syndrome, as the same symptoms following low dose epidural infusions have been described in male adults [1] and the pediatric population [2], as well as in trauma patients [3]. An autonomic-like explanation would seem more logical. The true mechanism of this complication may not yet have been discovered. Anesthesiologists, gynecologists, and personnel attending labor should be aware of this rare and confusing complication to reassure the patient and guide their practice according to the patient's safety and satisfaction.

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