

Unilateral Horner's Syndrome Following Epidural Top up for Trial of Labour

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Introduction

Horner's syndrome refers to the constellation of signs resulting from the interruption of sympathetic innervation to the eye and ocular adnexa. There is blepharoptosis, pupillary miosis, facial anhidrosis, enophthalmos and conjunctival hyperaemia (1).

Method

This case report aims to present Horner's syndrome that developed as a complication of epidural anaesthesia in a 20yr primigravida for trial of labour (successful forceps delivery) who had an epidural sited for labour analgesia earlier in the day. Epidural was topped up with 15ml of 0.75% ropivacaine and 75mcg fentanyl.

The patient was transferred to recovery post procedure and was noted to have developed ptosis, miosis and conjunctival hyperaemia on the right side and a diagnosis of Horner's syndrome was made. Patient was monitored for cardiorespiratory and neurological (sensory and motor function) functions.

Discussion

This syndrome is characterised by miosis, ptosis, anhidrosis and enophthalmos that develop from the blockage of sympathetic fibres coming from the cervical region to the facial region-C8-T1 level.

The development of HS in parturients receiving epidural analgesia can be explained by an excessive cephalic spread of local anaesthetics in supine position, with an overflow to the cervical sympathetic chain. This causes a disruption of the oculosympathetic pathway at the point where preganglionic neurons exit the spinal cord through the ventral roots on their path to the superior cervical ganglion (4–6). Pressure of the gravid uterus on the inferior vena cava

the intra-abdominal pressure and thus, enlargement of epidural veins decrease the epidural space volume. Uterine contractions and sensitivity to local anaesthetics due to progesterone contribute further (11).

In Horner's syndrome, symptoms are generally benign, and spontaneously regress over time. Signs appear approximately 25 min after the epidural administration (2–100 min), and they disappear in 215 min on average (3 min–24 h) (1).

Results

In our patient, symptoms occurred approximately 45min after administration of the drug in the epidural space and findings of ptosis, miosis and conjunctival hyperaemia completely disappeared 2hrs later and was discharged home the next day.

Conclusion

Early diagnosis of Horner's syndrome, which is one of the rare complications of epidural anaesthesia, prevents the anxiety in the patient and unnecessary diagnostic procedures.

References

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2. Shnider SM, Levinson G. Anaesthesia for obstetrics. In: Miller RD, editor. *Anesthesia*. 3rd edition. Churchill Livingstone; New York: 1990. pp. 1834–87. [Google Scholar]