

Cranial Nerve Palsy After Vaginal Delivery with Epidural Anesthesia, a case report

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Background

This case report describes a 34-year-old female who developed diplopia and strabismus two weeks after a vaginal delivery and epidural anesthesia.

Objective

This case demonstrates the uncommon complication of a cranial nerve VI palsy from a persistent CSF leak during following a dural puncture. Physicians should have the knowledge of the multiple treatment options available that include neurosurgery as a last resort and knowledge of the timeline for resolution of the diplopia.

Introduction

Cerebrospinal fluid (CSF) leaks occur secondary to traumatic (80%) or iatrogenic (16%) disruption to the meninges; rarely do they result from spontaneous leaks or congenital defects. Cranial nerve VI, Abducens nerve, is one of the nerves responsible for the extraocular motor functions of the eye. Activation of this muscle causes lateral eye movement, and unilateral palsy of this nerve will cause a binocular diplopia.

Cranial Nerve VI, Abducens, palsy



Discussion

Post-lumbar puncture headache is relatively frequent complication after epidural spinal injection, occurring up to 32% of the time. Generally, 85% of patients' symptoms resolve without any treatment. Treatment options include blood patches, IV and oral caffeine, epidural saline injection, and surgical closure of the dura. Complications can be minimized through the use of a non-cutting needle and reducing the number of lumbar puncture attempts. The rate of cranial nerve VI palsy is 2.6% in patients presenting with post-dural puncture headache. The palsy usually develops 4-10 days following the dural puncture and can persist for weeks-months with majority resolving with conservative treatment.

Conclusion

The patient received oral and IV caffeine, sphenopalatine nerve block, epidural saline injection, excess hydration, and three blood patches. This patient did not receive any neurosurgical intervention and her headache and diplopia resolved after 3 weeks without any permanent sequela.

References

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