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Facial nerve palsy following accidental dural puncture

EM Casely, K Basavaraj, ECB Harty, DN Lucas, ALRichardson
London North West University Healthcare NHS Trust

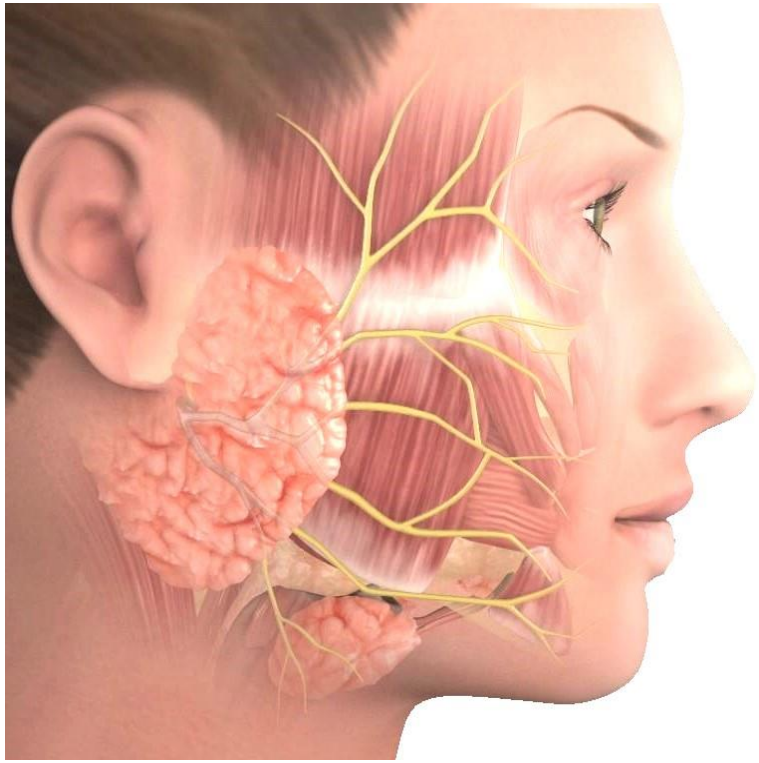
NHS London North West University Healthcare NHS Trust

Introduction

Cranial nerve palsy is an infrequent complication of obstetric neuraxial blockade.
We present a case of facial nerve palsy after accidental dural puncture in the absence of a classical post-dural puncture headache (PDPH).

Case Report

A 29 -year-old primigravida requested epidural analgesia for labour in a low-risk pregnancy. The first pass of a 16G Tuohy needle at L3 -4 resulted in an accidental dural puncture. The epidural was successfully re-sited at L4-5 and provided good analgesia. Due to delay in the first stage and fetal tachycardia she proceeded to CS. Following a 15 mL epidural top-up of 0.75% ropivacaine there was a sensory block to T4 but a missed segment in the T10 dermatome. A general anaesthetic was performed and the CS was uneventful. She was followed-up in line with local and national PDPH guidance.[1] She did not develop a headache and was discharged on day two with written information. On day five, she presented with a right -sided facial nerve palsy, but no headache. Examination was consistent with an isolated, right sided lower motor neurone facial nerve palsy. An urgent MRI was performed and was unremarkable. Following counselling regarding potential risks and benefits, the patient declined an epidural blood patch (EBP). She was followed up daily via telephone as an outpatient and her GP was notified of events. By day 15 the symptoms had completely resolved.



Discussion

Cranial nerve palsy is a rare and distressing complication of central neuraxial block.[2] Lesions most commonly affect the abducens, facial and vestibulocochlear nerves. They may be unilateral or bilateral and affect a single nerve or a combination. The most common aetiology is intracranial hypotension associated with dural puncture, as is the likely cause in this case. However, as this case demonstrates, cranial nerve palsy is not always associated with PDPH. Other aetiologies including infection, subdural haematoma or venous sinus thrombosis, must be excluded. Specialist imaging and neurology input must be sought. The clinical outcome in these patients is variable. In a literature review that identified 43 cases of cranial nerve palsy associated with neuraxial block, 81% of patients had resolution of their symptoms within months, but in 19% the palsy was permanent. The role of EBP in these patients is unclear, particularly in the absence of headache. This case highlights the importance of follow-up after accidental dural puncture in line with OAA Guidance. It also emphasises the need for vigilance and awareness of these rare complications amongst the multidisciplinary team.

References

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2. Chambers DJ, Bhatia K. Cranial nerve palsy following central neuraxial block in obstetrics – a review of the literature and analysis of 43 case reports. Int J Obstet Anesth 2017;31:13 -26.