

Subdural Haematoma formation: A rare complication of Dural puncture during Epidural insertion.

A. Louis and K. Upadhyaya, Anaesthetic Department, Broomfield hospital, Chelmsford, UK.

Introduction

Intracranial subdural haematomas (ISH) are an exceedingly rare complication of accidental dural punctures during an epidural insertion. Here we describe the clinical course of a patient who suffered this complication, its detection and management.

Case report

A 29-year-old primigravida presented at 41 weeks with premature rupture of membranes. She was known to have a non-symptomatic peri-membranous restrictive ventricular septal defect from birth. Due to the cardiac history, she was given an epidural on admission. During epidural insertion, an accidental dural puncture was encountered at L4-5 following which it was successfully inserted at L3-4. The detection of a pathological cardiotocograph resulted in an uncomplicated category-2 caesarean section done under an epidural top-up. The following day the patient developed symptoms of a post-dural puncture headache. After anaesthetic review, she was given regular analgesia and offered an epidural blood patch (EBP). The patient did not consent to the procedure and was discharged home on regular telephone follow-up. After 14 days, due to ongoing symptoms, an MRI head was performed which showed intracranial hypotension with right occipital ISH. The neurosurgical team was consulted and advised EBP. However, the patient continued to refuse it. The patient had another MRI, 4 weeks later which showed complete resolution of the previous changes and she was discharged from follow up with full recovery of symptoms.

Discussion

The loss of significant amounts of cerebrospinal fluid following accidental dural puncture during epidural insertion can cause the brain to shift in the cranium causing intracranial bridging veins to tear due to traction resulting in ISH.[1] This is however an extremely rare complication (1:500,000).[2] Factors that can cause one to suspect the formation of ISH include the presence of headache beyond 1 week, non-postural headache and focal neurological signs.[3] It is important to keep a degree of suspicion for ISH and follow up patients regularly till symptoms resolve as it can require neurosurgical evacuation of large haematomas resulting in significant mortality and morbidity.[4]

References

1. Zeiden A, Farhat O, Maaliki H, Baraka A. Does postdural puncture headache left untreated lead to subdural hematoma? Case report and review of the literature. Middle East J Anaesthesiol 2010;20:483-92.

2. Scott DB, Hibbard BM. Serious non-fatal complications associated with extradural block in obstetric practice. Br J Anaesth 1990;64:537-41.

3. Cuypers V, Van de Velde M, Devroe S. Intracranial subdural hematoma following neuraxial anaesthesia in the obstetric population: a literature review with analysis of 56 reported cases. Int J Obstet Anesth 2016;25:58-65.

4. Lim G, Zorn JM, Dong YJ, et al. Subdural hematoma associated with labor epidural analgesia: a case series. Reg Anesth Pain Med 2016;41:628-31.