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Case Report

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SUB-DURAL HEMATOMA FOLLOWING ACCIDENTAL DURAL PUNCTURE WHILE CONDUCTING LABOR EPIDURAL: A RARE COMPLICATION

Dr. Samaresh Das[1*], Dr. Nilay Chatterjee[2], Dr. Aziz Haris[3], Dr. Noor Ghanim Abdallah Al Dhahri[4]

1. Specialist, Anesthesia and ICU, 2. Senior Specialist, Neuroanesthesia and Pain Management, 3. Consultant, Anesthesia and ICU, 4. Resident, Anaesthesia, Oman Medical Specialty Board, Khoula Hospital, Mina Al Fahl, Muscat, Sultanate of Oman.

*Corresponding author - **Dr Samaresh Das**
Email id – drsamareshdas@gmail.com

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ABSTRACT

Subarachnoid block and epidural techniques are commonly employed for anaesthesia and analgesia in parturients. Sub-Dural Haemorrhage (SDH) is an extremely rare complication of such techniques but mandates prompt diagnosis and treatment to circumvent the neurological complications or mortality associated with it. We report an interesting case of SDH in a young lady who had an accidental dural puncture while attempting a labour epidural. This report highlights the importance of timely diagnosis and effective management of post-dural puncture headache keeping in mind the rare possibility of SHD, and its' consequence if remains undetected. We also emphasize the need for appropriate imaging modality in order to diagnose the occurrence of SDH in such cases.

INTRODUCTION:

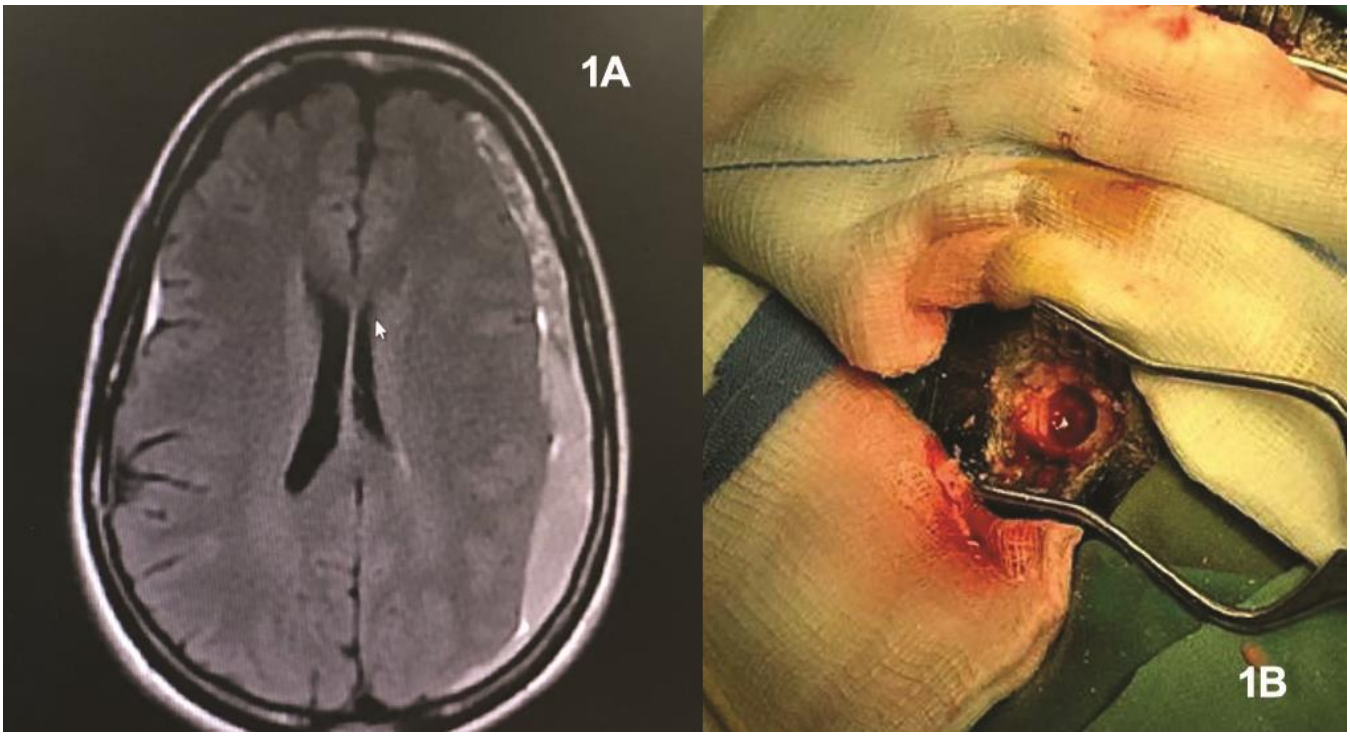
Subarachnoid block and epidural techniques are frequently used to provide anesthesia and analgesia for parturients. Postdural puncture headache (PDPH) is one of the complications of such technique, but subdural hematoma (SDH) is relatively rare, approximately occurring in 1/500,000 among the obstetric population. **(1)** If SDH remains undiagnosed or managed inappropriately, it may result in severe neurological deficits or even death. **(2)**

Case Report:

A-23-year-old primigravida, not known to have any comorbidities requested for painless labour. The technique and inherent risks were explained to her. During localization of epidural space with an 18G needle, while she was in the lateral position, the dura was accidentally punctured. After that, the procedure was abandoned, the patient was counselled, and normal vaginal delivery was conducted uneventfully. On the second post-delivery day, she complained of a headache. Post-dural puncture headache (PDPH) was suspected, and initially, it was managed with a combination of analgesics, oral fluids, caffeinated drinks, and restriction of mobility. The intensity of the headache was reduced on day 3, and she decided to return home despite being advised against discharge. On day 7, the intensity and frequency of her headache increased, and she was compelled to return to the hospital. She had a continuous headache for 48 hours, although neurological status was normal. The epidural blood patch was offered in view of PDPH, but the patient refused. She was kept admitted for observation. After three days, she reported severe headache, right-sided weakness, and nausea.

Magnetic Resonance Imaging of brain revealed left-sided acute on chronic SDH overlying almost the entire left cerebral hemisphere, causing mass effects, minimal midline shift, and effacement of the left lateral ventricle. Other hematological and biochemical investigations were within the normal limits. She was posted for the evacuation of SDH, and subsequently, burr hole and evacuation of SDH was performed under scalp block and conscious sedation. Her recovery was uneventful. A repeat MRI brain two days following surgery showed complete resolution SDH.

Figure 1: 1A: Plain Magnetic Resonance Imaging showing left fronto-temporo-parietal acute on chronic subdural hematoma (SDH); 1B: burr-hole and evacuation of SDH



DISCUSSION

Short bridging veins passing directly from the cortical surface of the brain to the dural sinuses might rupture due to the reduction of intracranial pressure secondary to the loss of cerebrospinal fluid, dragging the brain downwards. This results in extravasation of blood, forming SDH. Bridging veins have thinner walls in subdural space compared with subarachnoid space. Therefore, hemorrhages mostly occur in the subdural space, which may present as acute, sub-acute, or chronic SDH. **(3)** This can be managed conservatively or surgically depending upon the size and patient's symptomatology. Prognosis is excellent when diagnosed and managed timely. During the occurrence of headache following labor epidural, the possibility of PDPH should always be considered. Other differential diagnoses could be pre-eclampsia, migraine, meningitis, drug-induced headache, and intracranial pathology. To prevent PDPH, one should be vigilant while localizing epidural space or passing catheter.4 In case of an accidental puncture, and an epidural catheter can be inserted through the puncture site and kept for 24 hours. **(5)** The patient should remain hospitalized until fully relieved with or without using the blood patch. Following the discharged patient should be monitored for the occurrence of any neurological symptoms, or prolonged/atypical headache.

REFERENCES:

1. Schweiger V, Zanconato G, Lonati G, Baggio S, Gottin L, Polati E. Intracranial subdural hematoma after spinal anesthesia for cesarean

section. Case Rep Obstet Gynecol. 2013;2013: 253408. doi: 10.1155/2013/253408.

2. Srivastava U, Agrawal A, Gupta A, Dwivedi Y, Pilendran S, Shukla V. Intracranial subdural hematoma after spinal anesthesia for cesarean section: Case report and review of literature. J Obstet Anaesth Crit Care 2014;4:45-7.

3. Rocchi R, Lombardi C, Marradi I, Di Paolo M, Cerase A. Intracranial and intraspinal hemorrhage following spinal anesthesia. Neurol Sci 2009;30:393-6.

4. Miller JD, Nader R. Acute subdural hematoma from bridging vein rupture: a potential mechanism for growth. J Neurosurg. 2014 Jun;120 (6):1378-84.

5. Gurudatt CL. Unintentional dural puncture and postdural puncture headache-can this headache of the patient as well as the anaesthesiologist be prevented? Indian J Anaesth. 2014 Jul;58(4):385-7.

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