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Subdural Hematoma Following Accidental Lumbar Puncture: A Case Report

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Abstract Subdural haemtoma developing after a lumbar puncture is an an uncommonly seen entity but is reported in literature. We also encountered a young lady who underwent accidental lumbar puncture during epidural anesthesia for caesarian section and later started complaining of headache. Examination did not reveal any gross sensory motor deficit. MRI brain done for headache however picked up the subdural hematoma with pressure effects. Patient underwent burrhole and evacuation of subdural hematoma. Postoperative period was uneventful Patient was discharged home with advice to follow up in OPD.

Keywords: *dural puncture, subdural haematoms*

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1. Introduction

Subdural hematoma developing after accidental lumbar puncture is reported in literature but is seen in clinical practice less frequently and hence the wide use of lumbar puncture in clinical practice for various therapeutic and diagnostic procedures is seen. Epidural anesthesia for various orthopedic and gynecological procedures is seen very commonly. Accidental dural puncture is also reported. We report this patient who underwent epidural anesthesia for her caesarian section and accidental dural puncture occurred. No immediate problems were seen but later she started having headaches and MRI revealed a subdural hematoma which was removed surgically via burr holes. As there was no other cause to explain the same say trauma hence dural puncture was considered the culprit.

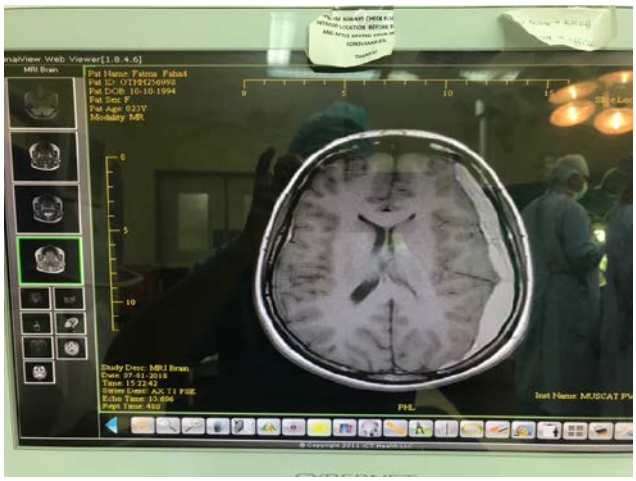

Figure 1. MRI showing the subdural haeamtoma

2. Materials and Methods

This 23 yr old lady underwent caesarian section and an epidural anesthesia was given in December 2017. However accidental dural puncture occurred and a blood patch was done. No immediate problems occurred and was discharged home. However later patient started having a disturbing headache. Patient was investigated by a MRI brain. To our surprise a left frontopareital subdural hematoma with pressure effects was seen. After detailed questioning no obvious history of trauma was found and cause of subdural hematoma was considered to be due to this accidental dural puncture causing low intracranial pressure leading to tearing of some capillaries in subdural space leading to this bleeding.

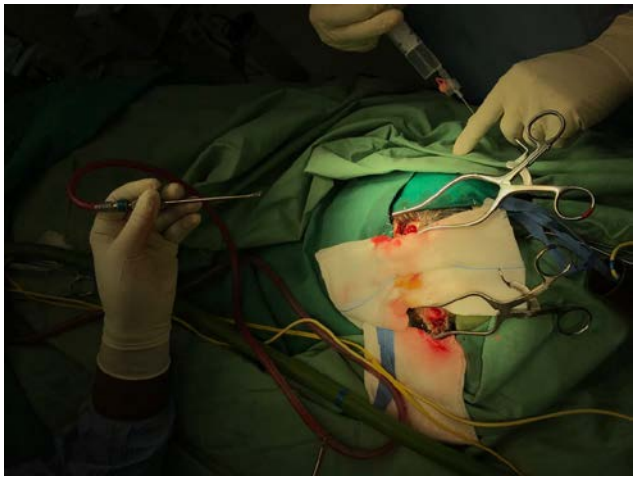

Figure 2. Burr hole evacuation being done

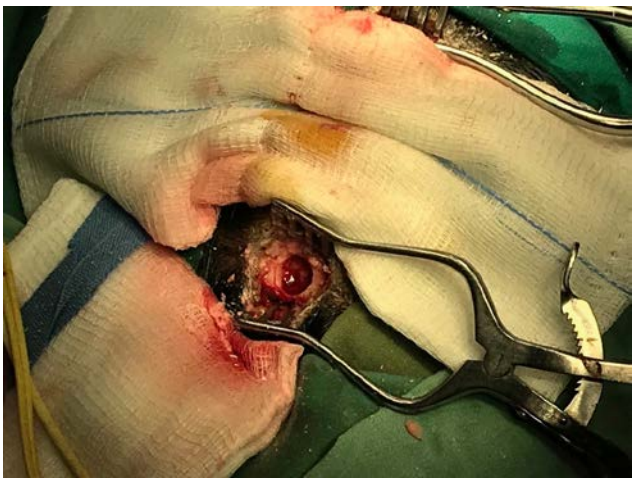

Figure 3. Burr hole evacuation being done

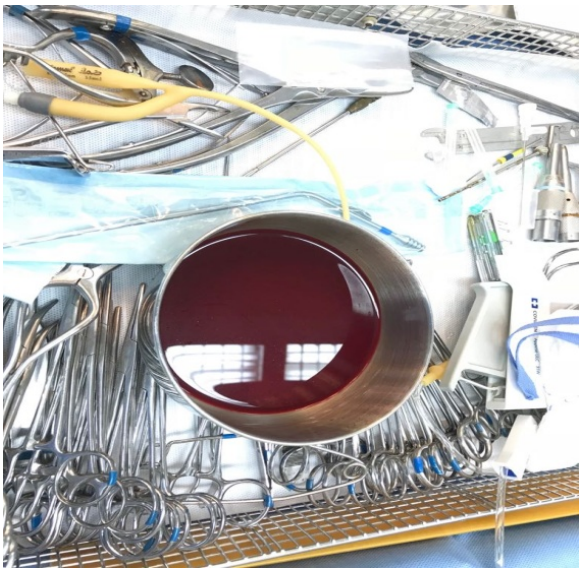

Figure 4. The evacuated subdural collection

3. Results

Patient underwent left frontal and parietal burr holes and evacuation of the subdural hematomaafter explaining all possible risks and benefits of surgery. Postoperative period was uneventful. Postoperative CT scan revealed satisfactory evacuation of the subdural hematoma. Patient was discharged home with advice to follow up in OPD. Sutures were removed after 8 days and wound healed satisfactorily. Patient improved clinically and is on regular follow up in OPD.

4. Discussion

In review of literature **Han-Joon Kim** in 2009 reported an acute subdural hematoma following a lumbar puncture in a patient with freezing gait [1]. Aydemir Kale in 2015 reported subdural hematoma in two patients following lumbar puncture [2]. Vaughan DJ in 2000 also reported subdural hematoma following epidural during labor [3]. Deglaire B in 1988 also has reported subdural hematoma development following epidural anesthesia in his practice [4]. Verdu MT in 2007 reported non surgical management of subdural bleed following spinal anesthesia [5]. Yildirim GB in 2005 also reconfirmed occurrence of subdural hematoma following spinal anesthesia [6].

5. Conclusion

Development of chronic subdural hematoma following a trivial head injury is a well known event. But in lack of such an event a detailed history of patient with chronic subdural hematoma is to be taken and history of lumbar puncture or accidental dural injury in some therapeutic or diagnostic procedure is to be considered. As low pressure created by the lumbar puncture tract can lead to gradual development of subdural bleed via capillaries tear in subdural space. And this sometimes requires a blood patch for dural tear site.

References

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