

Case Report

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Spontaneous Postpartum Subacute Subdural Hematoma: A Case Report of Probable Complication of Eclampsia

The author presents a patient who developed a subacute subdural hematoma approximately 2 weeks after normal delivery with history of postnatal convulsion and lateralizing neurological symptoms. On day 12, she started to feel a non-postural and severe throbbing headache with motor aphasia and right hemiparesis power grade 4, she was referred to our department. Left subacute subdural hematoma was confirmed by a computed tomography scan. Physical examination revealed only mild right hemiparesis. Left burr hole trepanation was performed and this was followed by uneventful postoperative course, and it completely recovered after 4 weeks. Chronic subdural hematoma should be considered when postpartum patients who have history of eclampsia with mild to severe, persistent, and non-postural headache.

Key Words: eclampsia, postpartum, subdural hematoma

Intracranial hemorrhage is a rare complication during pregnancy and postpartum period, but potentially fatal, which contributes significantly to maternal mortality. The main causes are ruptured aneurysm, arteriovenous malformations's (AVM) and pregnancy-induced hypertension. The aneurysm or AVM usually causes a subarachnoid hemorrhage; intracranial hemorrhage while associated with pre-eclampsia is usually intraparenchymal. Subdural hemorrhage associated with pregnancy has been reported in post trauma, associated with bleeding disorders or as a complication of epidural anesthesia during labor. A spontaneous subdural hematoma associated with preeclampsia, have been reported in some cases in the literature. We now describe such a case associated with eclampsia.

Case Report

A 25-year-old woman with history of headache and inability to speak since 2 days was referred to our department. On examination she was having motor aphasia with right hemiparesis grade 4, eye examination revealed pupils to be equal and reactive to light bilaterally, blood pressure was 150/100 mmHg with 4+ proteinuria without signs of trauma, with past history of convulsion during intranatal and post natal period 2 weeks before. She delivered a baby normally 2 weeks before the onset of symptoms with history of hypertension (BP 160/120 mmHg) and fits which was managed by IV labetalol and magnesium sulphate. The cardiopulmonary examination was unremarkable. Laboratory studies included

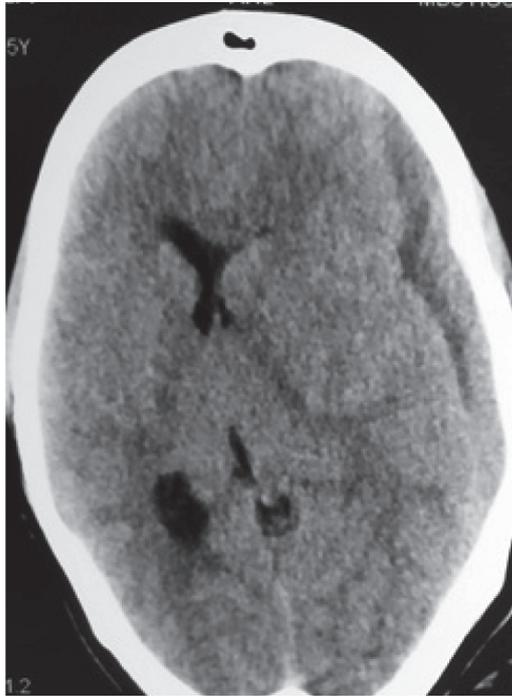


Figure 1: NCCT head demonstrating a midline shift and a large left sided subdural hematoma.



Figure 2: NCCT head demonstrating a normal scan after 2 months follow up.

hemoglobin of 11.8g/l, platelet count 205000/mm³, serum glutamic oxaloacetic transaminase (SGOT): 36.4 IU/L, glutamic pyruvate transaminase (SGPT): 28.2IU/L, urea: 42.4mg/dl, créatinine: 1.0mg/dl, total bilirubin: 0.7mg/dl. The brain CT scan was done which showed subacute subdural hematoma in left frontoparietal area (**Figure 1**). The patient was admitted on the same day in the operating room and the hematoma was evacuated by Left burr hole. The evolution was marked by neurological improvement without any motor or sensory deficit, she was well oriented and responsive to questions and commands. At the tenth day she was discharged with full recovery. After 2 months follow up CT scan was done which was normal (**Figure 2**).

Discussion

Intracranial hemorrhage is a rare complication occurring in 0.01-0.05% in pregnancies. The aneurysm or arterio-venous malformations are the most common causes of intracranial hemorrhage. Pregnancy-induced hypertension is also a factor of intra parenchymal hemorrhage.³ The subdural hematoma is a rare form of intracranial hemorrhage associated with pregnancy. Some cases subdural hematoma resulting from a head injury during pregnancy has been reported.¹ Other cases of subdural hematoma have been reported in post- partum in association with epidural anesthesia.⁴

The clinical symptoms described in these patients in post partum presented by: headache, dizziness, disorientation, memory loss, ophthalmoplegia, papilloedema, stupor, coma, and psychosis. The onset of these symptoms varies from the first to the fourth day after delivery.⁴ It seems clear that it exists an association between traumas, whether related to a direct head injury or secondary to regional anesthesia and the development of a subdural hematoma. An association between eclampsia and spontaneous subdural hematoma has not been previously reported. Gregg Giannina and al described a subdural hematoma during pregnancy in a patient with preeclampsia without notion of trauma. The exact etiology of the hematoma in this patient is not clear. However, thrombocytopenia may have been a predisposing factor for the development of intracranial hemorrhage and / or the inhibition of platelet function due to magnesium sulphate.² In our case the patient had a normal count of platelet and receive magnesium sulfate during intranatal period which may be the cause of subdural hematoma because of platelet function inhibition.

Conclusion

The hemorrhagic cerebrovascular accidents during pregnancy and post partum period are rare, possibly involving maternal and foetal prognosis. They must be

detected early and treated effectively, and often requires a multidisciplinary approach.

References

1. Amias AG. Cerebral vascular disease in pregnancy. I. Haemorrhage. **J Obstet Gynaecol Br Commonw** **77**:100-120, 1970
2. Giannina G, Smith D, Belfort MA, Moise KJ Jr.

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Atraumatic subdural hematoma associated with pre-eclampsia. **J Matern Fetal Med** **6**:93-95, 1997

3. Sharshar T, Lamy C, Mas JL. Incidence and causes of strokes associated with pregnancy and puerperium: A study in public hospitals of Ile de France. Stroke in Pregnancy Study Group. **Stroke** **26**:930-936, 1995
4. Vaughan DJ, Stirrup CA, Robinson PN. Cranial subdural haematoma associated with dural puncture in labour. **Br J Anaesth** **84**:518-520, 2000