

A Rare Successful Multidisciplinary Team Management of Pontine Hemorrhage in Third Trimester of Pregnancy: A Case Report

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Abstract

Pontine hemorrhage, a form of intracranial hemorrhage, is most commonly due to long standing poorly-controlled chronic hypertension. It carries a very poor prognosis. We report a 32 years-old pregnant mother who had a pontine hemorrhage in third trimester and was successfully managed with a multidisciplinary approach.

Key words: pontine hemorrhage; intracerebral hemorrhage; intracranial hemorrhage in pregnancy

Introduction

Primary pontine hemorrhage accounts for 7.5% (range 5-10%) of hemorrhagic strokes and has an incidence of 3 per 100,000 people [1]. It represents 10% of intracerebral Hemorrhage cases [2]. Pontine hemorrhages have a poor prognosis with overall mortality ranges between 30% and 90%, with the overall volume of the bleed and initial GCS being related to outcome [3]. We report a 32 years-old pregnant mother who had a pontine hemorrhage in third trimester. She was successfully managed with a multidisciplinary team approach. She was discharged after 23 days of stay in intensive care unit (ICU) with improvement.

Case presentation

A 32 years-old Gravida-III, Para-II mother presented with a history of loss of consciousness of one hour duration following a severe headache of one day duration, at a gestational age of 32 weeks. She was a known chronic hypertensive patient for 6 years on medication. She was on methyldopa 750 mg orally 3 times per day during her antenatal care for a high-risk chronic hypertension with poor control of hypertension. Her family and psychosocial history was unremarkable.

At presentation, she was in coma with a GCS of 7/15 and a blood pressure in severe range -160/110 mmHg. Her pulse rate and respiratory rate were normal. Up on laboratory investigation, her CBC, liver function test, and renal function tests were normal. On obstetric ultrasound, the estimated fetal weight was 1800 grams in breech presentation. Brain CT-scan was also done with pending result.

With a diagnosis of eclampsia plus rule out intracranial hemorrhage, she was stabilized with Magnesium Sulphate and her blood pressure was controlled with intravenous anti-hypertensive drug (Hydralazine 5 mg). Emergency CS delivery was done with a good fetal outcome (1800 grams male neonate with Apgar score of 7/10 and 8/10). Meanwhile, her brain CT-Scan result arrived and concluded pontine hemorrhage. Neurologist was consulted and it was decided to put her on conservative management. She was admitted to ICU and stayed there for 23 days until she was transferred to medical ward with improvement. During transfer, her GCS was 11 T and she was discharged later from the medical ward with further improvement.

Discussion

Patients with pontine hemorrhage present with sudden and precipitous neurological deficits. Depending on the speed at which the hematoma enlarges and the exact location, presentation may include : decreased level of consciousness (most common); long tract signs including tetraparesis; cranial nerve palsies; seizures; Cheyne-Stokes respiration [2,4]. CT of the brain is usually the first, and often the only investigation obtained upon presentation. Features typical of an acute intraparenchymal hemorrhage are noted, usually located centrally within the pons (on account of the larger paramedian perforators usually being the site of bleeding) [4].

Pontine hemorrhages have a poor prognosis, with large bleeds being almost universally fatal. Open surgical evacuation of the clot is usually not performed, although stereotactic clot aspiration has been advocated by some [5]. Such complex cases should be managed in specialized

centers with a multidisciplinary team that includes representatives for neurology, neurosurgery, obstetrics/gynaecology and anesthesiology [6]. In line with this recommendation, our patient was managed conservatively with a multidisciplinary team management approach. She was admitted to ICU for 23 days. Her GCS at admission to ICU was 7 and it dramatically climbed to 11T when she was transferred to medical ward for further recovery.

Conclusion

As highlighted in this article, it is highly important that chronic hypertension patients have an optimal control of blood pressure. Pontine hemorrhage occur most commonly due to long standing poorly-controlled chronic hypertension. And when it occurs, a timely multidisciplinary team management approach should be instilled with the goal being to put patients on effective conservative management.

Declarations

Consent for publication

Written informed consent was obtained from the patient for publication of this case report and any accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

Ethics Approval and consent to participate

Not applicable

Availability of supporting data

All supporting documents are submitted along with the case report

Competing interests

No competing interests

Authors' contributions

The authors together developed the introduction, wrote the case presentation, and outlined the discussion and conclusion parts.

Declaration of interest

None

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Conflict of Interest: None

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