

Masked Danger: Fatal Acute Obstructive Hydrocephalus in Early Pregnancy, Initially diagnosed as Hyperemesis Gravidarum

Armand Halim M.D, Amir AA, S.K. Chua, Alif F, Rabiha M.A

EMERGENCY AND TRAUMA DEPARTMENT HOSPITAL MELAKA, MALAYSIA

INTRODUCTION

Nausea, vomiting, and mild headache are common symptoms in early pregnancy. However, these non-specific features may occasionally conceal life-threatening neurological conditions such as intracranial tumours with obstructive hydrocephalus. Timely diagnosis can be challenging due to overlapping physiological changes of pregnancy and concerns over fetal exposure to diagnostic imaging.

CASE DESCRIPTION

A 26-year-old Malay primigravida at 9 weeks of gestation, who presented to Emergency Department with severe nausea and vomiting. Further history revealed a mild occipital headache for the past 2 days. She was stable at presentation and had normal neurological and obstetric examinations. Aside from 3+ urine ketone, the rest of the laboratory findings showed no abnormalities. Therefore, she was diagnosed with Hyperemesis Gravidarum. However, she experienced sudden neurological deterioration with an acute drop in GCS and was intubated for cerebral and airway protection. A plain CT brain revealed a large posterior fossa mass with features of obstructive hydrocephalus and tonsillar herniation (*Figure 1*). Emergency burr hole decompression and EVD insertion were performed in the ED by the Neurosurgical team, yet the patient failed to regain brainstem function and succumbed to brainstem death.

DISCUSSION

This case highlights the diagnostic challenges, especially when a pregnant woman presents with common non-specific symptoms in early pregnancy, such as nausea, vomiting and mild headache, which can mask a life-threatening neurological condition. Brain tumors involving the posterior fossa are particularly dangerous due to the limited anatomical space and risk of rapid decompensation. Despite concerns about fetal radiation exposure, non-contrast CT brain is considered safe and should not be delayed when maternal neurological compromise is suspected. Therefore, multidisciplinary management involving emergency, neurosurgical, obstetric, and critical care teams is essential in such complex scenarios.

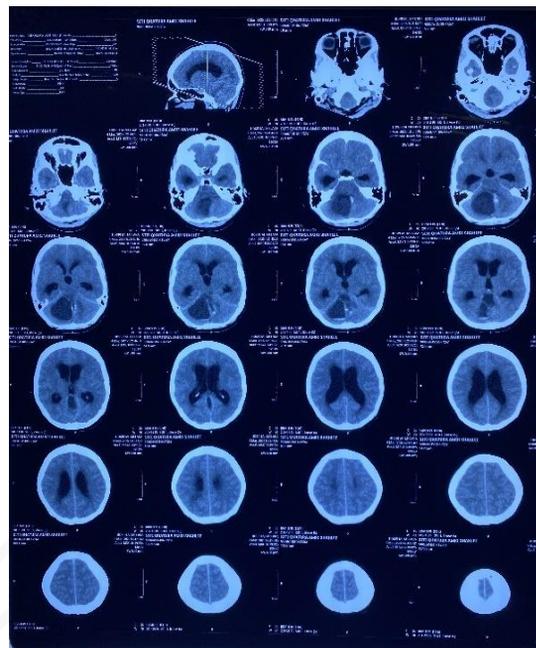


Figure 1

CONCLUSION

- Nausea and vomiting are common, non-specific symptoms in early pregnancy.
- However, when accompanied by headache, they warrant prompt and thorough evaluation to exclude serious secondary causes such as intracranial space-occupying lesions.
- Early recognition and a coordinated multidisciplinary approach are essential to optimize maternal outcomes.

REFERENCES

- <https://thejournalofheadacheandpain.biomedcentral.com/articles>
- <https://doi.org/10.1136/bmj-2022-070486> - Making decisions about radiological imaging in pregnancy