Unraveling the Neurological Puzzle: Wernicke's Encephalopathy and Hyperemesis Gravida

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Introduction:

Wernicke's encephalopathy (WE) is a frequently overlooked condition resulting from a deficiency of thiamine. Wernicke's encephalopathy that results as a consequence of hyperemesis in pregnant women often poses a challenge and diagnostic dilemma to health care providers, given the vague and wide range of symptoms exhibited by the patient. Many of the early neurological symptoms such as fatigue, confusion, and mood changes, can be mistaken for normal pregnancy-related symptoms, leading to delayed diagnosis.

Case report:

A 26-year-old primigravida at four months of gestation, presented to the emergency room with complaints of altered sensorium lasting for two days, progressively worsening. She was afebrile on presentation, but had history of low-grade fever for 2 days prior. She also had 5-7 episodes of vomiting per day for one week and small maculo-papular lesions with vescicles on her back and anterior chest wall for two months.

On examination, her body temperature was normal, BP 130/90 mmHg, pulse rate was108 bpm, regular, and a Glasgow Coma Scale (GCS) score of E2 V2 M4.

All routine investigations (which included complete blood count, renal function tests, serum electrolytes, urine routine, Arterial blood gas analysis) were all normal. Liver function tests were abnormal with elevated liver enzymes. Viral markers were negative. MRI brain with contrast revealed bilateral T2 and DWI hyperintensities in the dorsomedial and pulvinar nuclei of the thalami, without significant contrast enhancement. Cerebrospinal fluid studies were normal and fundus examination indicated bilateral blurring of the optic disc.

The patient received intravenous thiamine which gradually lead to improvement in GCS after two days, thereby supporting our diagnosis of Wernicke's encephalopathy secondary to hyperemesis.

Discussion:

Hyperemesis gravidarum is a severe form of nausea and vomiting during pregnancy, affecting approximately 0.5-2% of pregnant women. While the exact cause remains elusive, it is thought to be related to hormonal changes, with elevated levels of human chorionic gonadotropin (hCG) often implicated. Wernicke's encephalopathy is a neurological disorder caused by thiamine deficiency. leading to a spectrum of symptoms, including confusion,

ataxia, and ophthalmoplegia. In severe cases, it can progress to Korsakoff's syndrome, characterized by severe memory impairment. Prolonged Vomiting, Malnutrition, Gastric stasis and malabsorption issues in hyperemesis gravidarum are thought to be the cause of Wernicke’s encephalopathy in pregnancy.

Conclusion:

Early diagnosis and prompt treatment are paramount in managing Wernicke's encephalopathy. The primary treatment involves thiamine supplementation, usually administered intravenously. However, ruling out infective causes for altered sensorium is also necessary before concluding it to be a case of simple vitamin deficiency.