Psychosis as the Initial Presentation of Thiamine (Vitamin B1) Deficiency: A Case Report and Brief Literature Review

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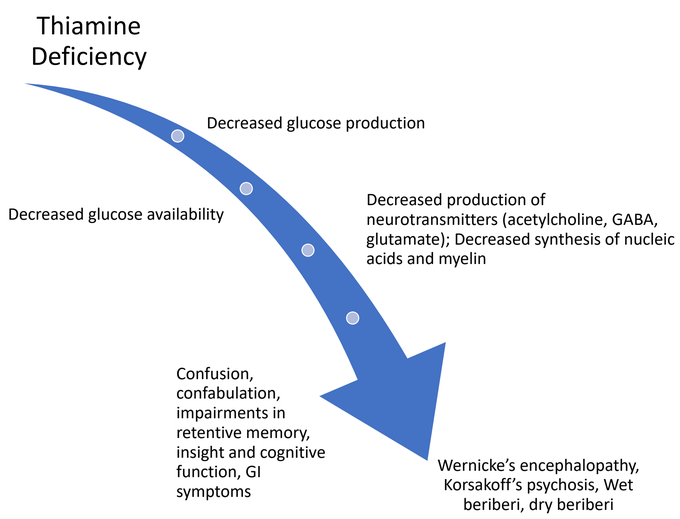
INTRODUCTION

Wernicke's encephalopathy (WE) presents with the classic triad of AMS, ataxic gait, and ophthalmoplegia in only 10% of cases. WE is most often associated with chronic alcohol use and poor nutrition caused by malabsorption/ poor dietary intake. We describe a case of a patient with gastric bypass who presented with psychosis and worsening falls plus low thiamine who's psychosis cleared with IM thiamine supplementation.

B1 DEFICIENCY



PSYCHOSIS in WE

A brief literature review revealed that while case reports of psychosis occurring in WE have been described[5,6], this is an uncommon presentation compared to other mentation changes like delirium. Walker et al reported a case of a 30 year old AA woman who had gastric bypass 17 weeks prior to presenting in acute psychosis. Worden et al reported a case of 32 year old AA woman who had gastric bypass 15 weeks prior to being diagnosed with acute psychosis. A systematic review of bariatric surgery induced WE found that in 84 identified cases, 11 of them experienced psychosis[7].

CLINICAL PEARLS

- In thiamine deficiency, the classic triad of ataxia, ophthalmoplegia, and AMS is rarely present.
- In patients presenting with psychotic symptoms and a history of gastric bypass clinicians should consider checking a thiamine level.

CASE SUMMARY

54 year old female with PMHx of gastric bypass and self-reported PPHx of schizophrenia, was admitted with one month worsening delusions and increasing falls over the last 6 months, with questionable outpatient medication adherence. Family reported that patient had been given a diagnosis of schizophrenia 6 years previous but were unsure where this came from. Additional symptoms at the time of admission included significant irritability, paranoia towards the treatment team, and perceptual disturbances. Initial score on Montreal Cognitive Assessment (MoCA) was 13/30. Medical work-up a few weeks prior to admission revealed low thiamine levels of 6 nmol/L (nl 8-30), but she was only prescribed oral thiamine 100 mg daily.

At the time of admission, she was resumed on home medications of duloxetine 60 mg daily, quetiapine 400 mg qhs, lamotrigine 150 mg BID for reported seizure disorder. Quetiapine was increased to 500 mg QHS in the first few days of hospitalization to help promote sleep with good effect. On the second day of admission she was started on a 5 day course of thiamine 100 mg IM, and began to show significant improvement in psychotic, affective and cognitive symptoms, as well as improved balance. Repeat MoCA on day of discharge was 21/30. Psychotic symptoms had resolved by time of discharge. Thiamine level drawn on day of discharge (hospital day 9) returned at 228 nmol/L.

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