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CYCLIC VOMITING SYNDROME DURING PREGNANCY – A CHALLENGE FOR CONSULTATION-LIAISON PSYCHIATRY

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INTRODUCTION

Cyclic vomiting syndrome (CVS) is an idiopathic illness with a dichotomic pattern characterized by sudden-onset episodes of repetitive vomiting and abdominal pain, alternating with asymptomatic periods. No consistent structural changes in the gastrointestinal tract have been identified, therefore CVS is an exclusion diagnosis (Levinthal & Bielefeldt 2014).

In adult CVS patients, prolonged fasting, emotional disturbance and anxiety can trigger emetic episodes. It is described that some patients use hot showers to relieve the emetic episodes, while others may use cannabis or other drugs (Levinthal & Bielefeldt 2014).

The acute effect of cannabinoids and opioids stand in contrast to the consequences of their chronic use, which have been linked to the worsening of CVS (Levinthal & Bielefeldt 2014) and even to another condition called cannabinoid hyperemesis syndrome (CHS). CHS is characterized by a triad of chronic cannabis use, cyclic vomiting and compulsive bathing (Allen et al. 2004).

We aim to report the case of a pregnancy complicated by CVS in a woman with sporadic cannabis use who resorted to hot showers to relieve the emetic episodes. We also intend to discuss the diagnostic and management challenges in these cases.

CASE REPORT

A 24-year-old primigravida was brought to the emergency department in the 8th week of gestation presenting with nausea and vomiting for the previous 24 hours. She reported a past medical history of CVS since she was 10 years old, that required 7 hospital admissions. Hyperemesis gravidarum was presumed and she was admitted to the obstetrics ward. The patient was started on intravenous fluid replacement, esomeprazole, droperidol, metoclopramide and ondansetron, unsuccessfully. She was also prescribed dexamethasone, but she remained symptomatic.

Over the following days, the nursing staff reported that the patient showered several times a day, claiming to feel relief from the nausea and vomiting during the process. Eleven days after admission the patient remained symptomatic and the excessive showering continued, hence a liaison psychiatry evaluation was requested.

In the psychiatric assessment the patient stated the excessive showering (more than 8 times a day) started when she was in her early teenage years but only had that habit during symptomatic periods. During asymptomatic periods, the patient showered only once a day. She claimed the hot water had a relaxing effect and helped to temporarily relieve the abdominal pain, nausea and vomiting. Other heat sources applied over her abdomen, such as heating pads, failed to provide the same calming effects. Between the emetic episodes, she maintained normal eating habits.

Her mental state examination only showed a slightly anxious mood, reactive to concerns about the effects of the vomiting on her fetus. She had a past history of panic disorder during adolescence, successfully treated with escitalopram 20 mg for a year. She reported sporadic cannabis which started in adulthood, claiming the last time she used the drug was 6 months ago. She did not recall using cannabis during the emetic episodes. The team conducted a urine cannabinoid screen which was negative. In the following day, the patient was discharged against medical advice.

A few weeks later, another liaison psychiatry evaluation was requested. The patient had been admitted to the obstetrics ward 4 times over the last few weeks with the same symptoms. She maintained the excessive showers during the episodes. Her mental state examination was overlapping. She was started on chlorpromazine 25 mg 3 id, became asymptomatic and was discharged.

The patient maintained follow-up in perinatal psychiatry consultation as an outpatient and remained stable. At 36 weeks of gestation, she delivered, through a normal vaginal delivery, a healthy preterm female neonate with adequate birth weight (2540 g). No evidence of numbness or sedation were found in the neonate. After delivery, the patient stopped chlorpromazine and remained asymptomatic.

DISCUSSION

CVS and CHS are related disorders which share many features, mainly abdominal pain, recurrent vomiting episodes and secondary weight loss. These features are not explainable by another medical condition. The differential diagnosis between these two clinical entities lies in the fact that in CHS a chronic weekly use of cannabis must be present (Simonetto et al. 2012).

To our knowledge this is the first case report of a pregnancy complicated by previous CVS in a woman who resorted to hot showers to relieve the emetic episodes.

Our case illustrates the challenges specific to the diagnosis and management of this clinical entity. The patient presented with symptoms initially attributed to hyperemesis gravidarum. After a thorough assessment with multidisciplinary cooperation, the diagnosis of CHS was excluded after a negative urine screen for cannabis. Our patient maintained normal eating habits, which excluded an eating disorder. The multiple baths were not part of obsessive-compulsive disorder or psychosis. With the exclusion of these hypotheses a CVS diagnosis was established.

CVS management aims to terminate the acute hyperemesis phase, especially in pregnant patients. Dehydration, metabolic derangements and malnutrition are a matter of concern because of the risk of fetal growth restriction and oligohydramnios (Byers et al. 2009). This is the first case report, to our knowledge, of a pregnancy complicated by CVS treated with chlorpromazine. Chlorpromazine was the drug of choice because of its antiemetic properties and low risk during pregnancy. Other drugs reported to be effective in pregnancy complicated by CVS are promethazine, ranitidine (Byers et al. 2009) or amitriptyline (Tamai & Kinugasa 2015).

The multiple hot water showers are the most fascinating aspect of this case. This odd behaviour is present in almost all cases of CHS but was described in only a few CVS cases. Its pathophysiological explanation remains undetermined. It was hypothesized that chronic hypothalamic stimulation of cannabinoid receptor type 1 (CB1) might be countered by warm bathing because the CB1 is near the thermoregulatory centre of the hypothalamus (Patterson et al. 2010).

CONCLUSIONS

This rare and defying clinical case raises awareness for the presence of CVS in pregnant patients that might go unnoticed and be mistaken for hyperemesis gravidarum. It also emphasizes the importance of a thorough anamnesis, high clinical suspicion and a multidisciplinary approach to reach an accurate diagnosis and initiate a timely treatment.

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Disclaimer:

Consent was obtained from the patient to publish the case report, and information has been de-identified to protect anonymity.

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Contribution of individual authors:

Núria Santos: data collection, first draft, liaison psychiatry evaluation of the patient.

Catarina Santos: data collection, follow-up of the patient in perinatal psychiatry consultation.

Catarina Cativo: draft review, liaison psychiatry evaluation of the patient.

António Alho & Ricardo Gasparinho: draft review.

Alice Luis: liaison-psychiatric unit coordinator; clinical supervision.

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