

## BACKGROUND/AIMS:

Hyperemesis Gravidarum (HG) can have severe maternal consequences. It is important to consider a wide variety of possible contributing factors, to provide the best care for an acutely unwell patient. This case report aims to both demonstrate the most serious complications of HG, but also elucidate rare contributing factors such as cannabis hyperemesis syndrome, concomitant sexually transmitted infections (STIs) and significant psychological overlay. Overlooking these rare factors may worsen patient outcomes.

## CASE:

A 24-year-old female, presented to an abortion clinic at 13+4 weeks gestation requesting a termination of pregnancy. She had a history of substance use and multiple psychiatric diagnoses. She appeared acutely unwell with intractable vomiting and was transferred to the Emergency Department. She was found to have severe electrolyte disturbance, a type II myocardial infarction, prolonged QT syndrome, liver function derangement, malnutrition and consequently was high risk of re-feeding syndrome. During her prolonged admission, she also tested positive for Herpes simplex virus and Mycoplasma Genitalium. She was managed in the intensive care unit by multiple medical specialties and allied health. Once medically stable, she underwent a surgical termination of pregnancy. She suffered a prolonged emotional recovery, culminating in inpatient psychiatric admission post medical discharge.

## Hyperemesis

- ✦ The patient suffered 10 days of intractable vomiting: >4L vomitus per day, with reportedly nil oral intake during this time and 13kg weight loss.
- ✦ Likely large role of Hyperemesis Gravidarum
- ✦ HOWEVER CONSIDER **cannabis hyperemesis syndrome**: severe intractable N&V in regular THC users. Characterised by symptom relief with **hot showers**. Our patient had been using up to 3g of THC per day.
- ✦ Treatment: topical capsaicin cream, ceasing THC



## Electrolyte derangement

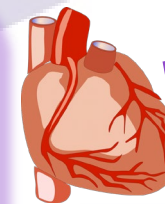
- ✦ The patient's initial bloods showed severe electrolyte depletion as shown

Na+	K+	Urea	Cr	CMP	ALP	ALT	GGT
121	1.8	9.6	82	NAD	76	598	97

- ✦ Managed with IV replacement and total parenteral nutrition with close dietician involvement. Important to supplement with thiamine
- ✦ Very important to consider **re-feeding syndrome**- potentially fatal condition hallmarked by **hypophosphatemia**. Can lead to arrhythmias/cardiac arrest, neurological manifestations/encephalopathy, respiratory failure and more.

## Cardiac sequelae

- ✦ The patient was SOBOE, experiencing palpitations and clinically hypoxic, saturating below 90% O<sub>2</sub>. CTPA and CXR were normal.
- ✦ However troponin was raised (26→35) and ECG showed T wave inversion in lead III and avF ?**type II NSTEMI**
- ✦ The ECG also showed evidence of **prolonged QT syndrome**. It is important to use **antiemetics that do not further prolong the QT**

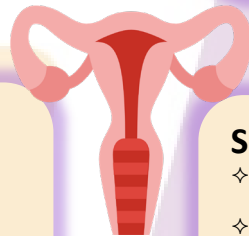


## Liver function derangement

- ✦ Viral hepatitis screen performed- HIV, Hep A/B/C, CMV, EBV negative. However HSV IgM positive, IgG negative.
- ✦ Possibly secondary to **starvation hepatitis**.
- ✦ Managed conservatively by observation and improved throughout admission

## Termination of pregnancy

- ✦ Once the patient had stepped down from ICU to the ward, she was reviewed by anaesthetics and deemed medically stable to undergo a general anaesthetic.
- ✦ A surgical termination of pregnancy (STOP) was performed as routine with no complications.
- ✦ She was discharged day 2 post STOP. The length of entire admission was 8 days.



## Sexual health

- ✦ Given history of unprotected intercourse, routine STI vaginal swabs were performed prior to termination of pregnancy.
- ✦ Mycoplasma Genitalium was detected, and treated.
- ✦ Recent infection with HSV (IgM pos, IgG neg) was also diagnosed in workup of abnormal LFTs, however the patient was asymptomatic.
- ✦ Detailed counseling was given regarding contraceptive options, available including LARCs, however the patient declined

## Psychosocial

- ✦ The patient had a significant mental health history including depression, anxiety and borderline personality disorder. She also had limited social supports.
- ✦ This most likely delayed her hospital presentation to the point where she suffered such significant complications.
- ✦ She was seen by psychiatry and social work, recommended on anti-depressant therapy, but ultimately required inpatient psychiatric treatment post discharge.



## DISCUSSION:

This patient's unusual case of HG can help clinicians more broadly consider uncommon factors that may worsen presentation. Cannabis Hyperemesis Syndrome is a newly described condition, and its specific symptoms such as relief from hot showers may be commonly overlooked. This patient's psychiatric disorder also likely contributed to delayed hospital presentation, and subsequently more severe sequelae.