A near death experience

Introduction

Cannabis is the most commonly used illicit drug with a 4% prevalence (Soriano-Co et al, 2010). Despite the increasing number of reports, cannabis hyperemesis syndrome is still under-recognized and under-diagnosed in children and adults. The severity of vomiting and subsequent electrolyte disturbance that led to this patient's previous cardiac arrest make this case report unlike any other case reported.

Discussion

This woman had a presumed diagnosis of cyclic vomiting syndrome for the past 8 years. On close review of her case notes and further history from the patient, her vomiting began 10 years ago, 2 years after she started regular cannabis use. She found relief with hot water baths or showers and upon cannabis cessation while in hospital. Differentials to consider in this patient included:

- Alcohol abuse
- Eating disorders +/- laxative or diuretic abuse.

Cannabis hyperemesis syndrome classically manifests with recurrent nausea and vomiting, abdominal cramps and compulsive bathing (Soriano-Co et al, 2010; Nicolson et al, 2012). All symptoms in this case are classic of cannabis hyperemesis syndrome and correlate well with the Mayo Clinic proposed clinical criteria for diagnosis (*Table 1*) (Simonetto et al, 2012). The diagnosis, in this case, was hindered by multiple discharges against medical advice and missed outpatient appointments. Cannabis hyperemesis syndrome, although increasingly reported, remains under-recognized and under-diagnosed, and is not limited to adults (Sontineni et al, 2009; Miller et al, 2010).

Mr BKY Chan *is Core Surgical Trainee Year 2 in the Department of General Surgery and* **Dr BJ Renton** *is Consultant in the Department of Acute Medicine, Royal Liverpool University Hospital, Liverpool L7 8XP*

Correspondence to: Dr BJ Renton (bryan.renton@rlbuht.nhs.uk)

Awareness of cannabis hyperemesis syndrome is crucial to prevent unnecessary investigations (Wallace et al, 2011). What is unusual and not reported elsewhere is the severity of vomiting and subsequent electrolyte disturbance that led to her previous cardiac arrest. BJHM

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Nicolson SE, Denysenko L, Mulcare JL, Vito JP, Chabon B (2012) Cannabinoid hyperemesis syndrome: a case series and review of previous reports. *Psychosomatics* **53**(3): 212–19

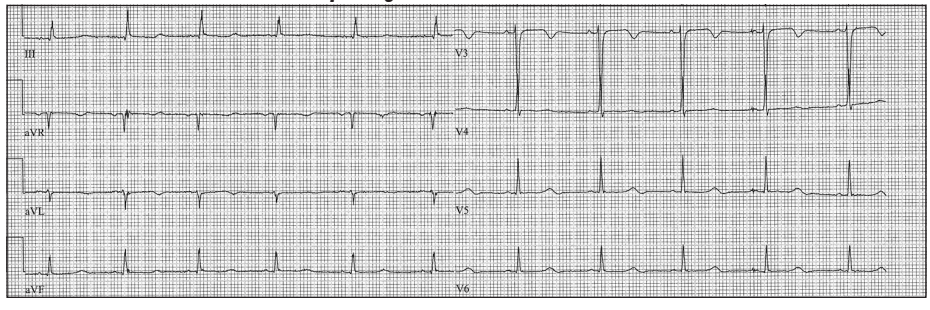
Simonetto DA, Oxentenko AS, Herman ML, Szostek JH (2012) Cannabinoid hyperemesis: a case series of 98 patients. *Mayo Clin Proc* **87**(2): 114–19

Sontineni SP, Chaudhary S, Sontineni V, Lanspa SJ (2009) Cannabinoid hyperemesis syndrome: clinical diagnosis of an underrecognised manifestation of chronic cannabis abuse. *World J Gastroenterol* **15**(10): 1264–6

Soriano-Co M, Batke M, Cappell MS (2010) The cannabis hyperemesis syndrome characterized by persistent nausea and vomiting, abdominal pain, and compulsive bathing associated with chronic marijuana use: a report of eight cases in the United States. *Dig Dis Sci* **55**(11): 3113–19

Wallace EA, Andrews SE, Garmany CL, Jelley MJ (2011) Cannabinoid hyperemesis syndrome: literature review and proposed diagnosis and treatment algorithm. *South Med J* **104**(9): 659–64

Figure 1. Patient's admitting electrocardiogram, showing sinus rhythm at 65 beats per minute, T wave inversion V1–3 and aVL (old), and a prolonged QTc interval at 520 ms.



Case Report

A 27-year-old woman presented with a 5-day history of intractable vomiting. She denied any diarrhoea but had some associated epigastric discomfort. Past medical history included ventricular fibrillation arrest as a result of hypokalaemia at 19 years of age, mild anoxic brain injury, previous alcoholism and oesophagitis. This presentation was identical to 18 previous admissions for recurrent vomiting, which had resulted in a battery of investigations and consultations, including six gastroscopies, abdominal ultrasound, computed tomography imaging head to pelvis, echocardiogram, implantable loop recorder, urinary drug screen and extensive blood work, culminating in a diagnosis of cyclical vomiting syndrome.

Her medications included cyclizine and lansoprazole. She smoked 20 cigarettes and at least one cannabis joint per day but denied using other recreational drugs or recent alcohol consumption. Baseline observations revealed blood pressure 110/70 mmHg, pulse 100 beats/minute regular, oxygen saturations 94% on air, respiratory rate 22 breaths/minute, apyrexial. Positive examination findings included mild epigastric tenderness and reduced skin turgor.

Relevant investigations included: electrocardiogram (*Figure 1*); sodium 135 mmol/litre, potassium 2.7 mmol/litre, urea 35.4 mmol/litre, creatinine 469 μmol/litre, arterial blood gas (on room air): pH 7.69, $PaCO_2$ 6.87kPa, PaO_2 8.5kPa, bicarbonate 62 mmol/litre and base excess 35 mmol/litre. Full blood count, liver function, amylase, bone profile, chest X-ray and renal ultrasound were normal.

Given the patient's acute kidney injury with associated hypokalaemia, and metabolic alkalosis, she was rehydrated, prescribed anti-emetics, put on a cardiac monitor and had her potassium replaced. Her vomiting settled on cessation of cannabis use and her renal function, potassium and QTc interval all normalized. It became apparent that the patient was unaware that her cannabis abuse was the cause of her hyperemesis. The authors emphasized the importance of cannabis cessation, and she was discharged on day 6. To the authors' knowledge, she has not been readmitted with hyperemesis.

Table 1. Mayo Clinic proposed clinical criteria for diagnosis of cannabis hyperemesis syndrome

Essential	Long-term cannabis use
Major feature	Severe cyclic nausea and vomiting
	Resolution with cannabis cessation
	Relief with hot showers or baths
	Abdominal pain (epigastric or periumbilical)
	Weekly marijuana use
Supportive features	Age <50 years
	Weight loss >5 kg
	Predominantly morning symptoms
	Normal bowel habits
	Negative laboratory, radiology and endoscopy results

From Simonetto et al (2012)

LEARNING POINTS

- Patients presenting with hyperemesis have a vast differential. A good history is essential so that social clues are not missed.
- Cannabis hyperemesis syndrome, although increasingly reported, remains under-recognized, under-diagnosed, and is not limited to adults.
- Awareness of cannabis hyperemesis syndrome is crucial to prevent unnecessary investigations.
- The only effective treatment is cannabis cessation.
- Cannabis use is associated with many complications, with this report showing a potential deadly complication of cannabis hyperemesis syndrome.

Negative laparoscopic appendicectomy: the value of diagnostic laparoscopy

A 37-year-old man presented with a 1-day classical history for appendicitis, the diagnosis only becoming clear during laparoscopy once the appendix had been visualized and full laparoscopy performed.

Results revealed that he had right iliac fossa local peritonism. The rest of his abdominal examination was unremarkable. Blood results showed a mild inflammatory picture.

Intra-operatively, the appendix appeared normal; however, there was frank pus in the right iliac fossa and the pelvis. A full laparoscopy was performed; a foreign body wrapped in omentum was found protruding through the jejunum (*Figure 1*). This was removed via a 6 cm incision extending umbilical port. The enterotomy was closed, and the patient made an uneventful recovery.

Postoperatively, the patient recollected swallowing whole the bone from a lamb chop 1 day before the onset of symptoms (*Figure 2*).

In cases of right iliac fossa pain where the patient dose not have an obviously inflamed appendix at laparoscopy, a full examination should be performed. Thus starting a case laparoscopically may prevent unnecessary laparotomy. Even an 'obvious' case of appendicitis should be consented for full laparoscopy and potential further procedures. BJHM

Mr James Newman *is Core Surgical Trainee in the Division of Vascular Surgery, Northwick Park Hospital, Harrow HA1 3UJ and* **Mr Chanpreet Arhi** *is Specialty Registrar in the Division of General Surgery, Queen Elizabeth Hospital, London*

Correspondence to: Mr J Newman (james.newman2@nhs.net)

Figure 1. Laparoscopic photograph of jejunum demonstrating foreign body perforation.

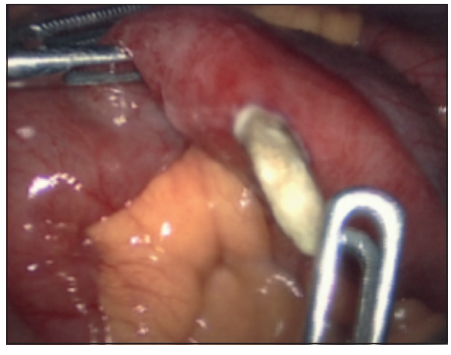


Figure 2. The removed foreign body – a lamb chop bone.