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## Cannabinoid hyperemesis syndrome<sup>☆</sup>



### Síndrome de hiperemesis cannabinoide

Dear Editor:

Chronic use of cannabis can cause vomiting, a symptom few users and health care providers are aware of at present.<sup>1</sup>

Cannabinoid hyperemesis syndrome (CHS), first described in 2004 by Allen et al. in chronic users of this substance, is characterised by recurrent episodes of nausea, vomiting and abdominal pain that can be alleviated by hot baths, with symptoms resolving fully on cessation of cannabis use, and recurring if cannabis is used again.<sup>2</sup>

The syndrome manifests in 3 distinct stages: a stage of prodromal illness that may last months or years characterised by episodes of morning sickness and abdominal pain. During this stage, patients may increase their use of cannabis with the aim of alleviating the symptoms. This is followed by the hyperemetic stage, which follows a cyclical pattern of episodes lasting between 24 and 48 h; it is in this period that the compulsive behaviour of taking several long hot showers or baths develops. The third stage is a period of recovery with resolution of symptoms, returning to the habitual bathing frequency if cannabis use has ceased.<sup>2</sup> The exact cause of CHS remains unknown.

The differential diagnosis of CHS must include conditions such as cyclical vomiting syndromes, abdominal migraine, hyperemesis gravidarum, gastrointestinal, pancreatic or hepatic abnormalities, diseases of the central nervous system, especially intracranial tumours, and endocrine and metabolic disorders, among others.<sup>1</sup>

The treatment in the hyperemetic stage consists in supportive measures to address electrolyte disturbances, as commonly used antiemetic drugs are ineffective. There are

recent reports of the use of haloperidol by the oral or the intravenous route and of topical capsaicin with good results.<sup>3</sup>

The definitive curative treatment of CHS is complete cessation of cannabis use, and a key motivator for the patient is to accept that there is a relationship between cannabis use and the vomiting.<sup>4</sup>

The patient was a female adolescent aged 14 years that visited the emergency department complaining of suffering uncontrollable vomiting episodes every 30 min accompanied by colicky abdominal pain for the past 24 h. She denied any changes in bowel movements or fever. She reported having epigastric abdominal pain in recent months, mainly in the morning, and having lost approximately 4 kg of body weight since the onset of symptoms.

The most relevant finding in the history was that she reported initiating sporadic use of cannabis at age 12 years and using cannabis regularly in the past year. She denied use of any other substances or medication.

The findings of the physical examination were normal. Given the persistence of vomiting unresponsive to common antiemetic drugs, the decision was made to admit the patient to hospital and initiate fluid therapy. Several diagnostic tests were performed: blood tests, pregnancy test, catecholamine urine test, abdominal ultrasound, upper gastrointestinal endoscopy, and abdominal and head computed tomography scans, the results of which were all normal. The urine drug test was positive for cannabis.

On more thorough questioning, she reported that her symptoms started a few hours after sharing 10 cannabis cigarettes with someone else.

Since CHS was suspected, the patient was offered the opportunity of taking a hot shower. This alleviated the symptoms, and the patient stayed several hours in the bathroom.

The patient was discharged with the advice of completely abstaining from cannabis. A few days later she came back to the emergency department with similar symptoms, having started to use cannabis again. Only when she accepted that her symptoms were due to cannabis use did the patient completely abstain from it, from which point the symptoms did not recur.

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Cannabis is the most commonly used illegal substance in Europe.<sup>5</sup> The published evidence on CHS in children and adolescents consists only of isolated case reports.<sup>6</sup> This syndrome could be underdiagnosed due to a lack of awareness, and many patients actually self-diagnose after reading educational articles about it online.<sup>4</sup>

Increased awareness of this disease would help reduce the use of costly, invasive and unnecessary diagnostic tests in cases where CHS is strongly suspected after a detailed history-taking and a physical examination. Cannabinoid hyperemesis syndrome should be suspected in any young patient that is a chronic user of cannabis reporting recurrent episodes of nausea, vomiting and abdominal pain and taking hot baths compulsively to alleviate the symptoms.<sup>1</sup> Numerous articles on CHS in the literature have proposed protocols for its assessment and diagnosis.<sup>7</sup>

The increase in the consumption of this substance at increasingly early ages could lead to an increase in the incidence of this disease in children and adolescents. This demands a deeper understanding on the part of health care providers so it can be appropriately diagnosed.

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## Five cases of aplasia cutis congenita<sup>☆,☆☆</sup>



### Cinco casos de aplasia cutis congénita

Dear Editor:

Aplasia cutis congenita (ACC) is a rare and heterogenous disorder, with an estimated rate of incidence 1–3 to 10,000 births.<sup>1</sup> It is characterized by the absence of a skin portion and sometimes subcutaneous tissue and even bone.<sup>1–3</sup> Usually ACC presents itself as a solitary scalp defect but it can also manifest as multiple scalp lesions or it can affect any other part of the body.<sup>1,2</sup> In some situations, ACC can be associated with other physical anomalies or malformation syndromes.<sup>2</sup>

We present five cases of ACC of the scalp that occurred in a very short period of time (four months) with no apparent relation between them. In all the cases, the parents were less than 35 years old, with no history of maternal infections or drug intake during pregnancy.

The first one was a male neonate from an uneventful pregnancy with normal obstetric ultrasounds (US). The infant was born at term by spontaneous vaginal delivery and, immediately after birth, he was noted with three oval lesions in the median region of the scalp, the biggest measuring 4 cm × 3 cm, all with well-defined margins (Fig. 1). The cranial US did not show any central nervous system haemorrhage, neither signs of infection or sinus thrombosis and cranial computer tomography revealed bone integrity of the scalp.

The second was also a male term neonate, but in this case, there was a history of dichorionic diamniotic twin pregnancy with spontaneous foetal death of one foetus at 15 weeks gestational age (papyraceous foetus). The surviving twin was born with a single oval shaped scalp lesion with 3 cm × 2 cm (Fig. 2). The cranial US was also normal and a cranial magnetic resonance confirmed the absence of central nervous system defect, which are more prevalent in the surviving neonate twin of a papyraceous foetus.

The last three neonates, one male and two females, were born with a small circular defect on the scalp vertex, between 3 and 5 mm. The male neonate's gestation was complicated by gestational diabetes and at 35 weeks an emergency caesarean section was precipitated by an umbilical cord prolapse, bringing about an extremely difficult extraction; additionally, his mother exhibited a small alopecia lesion since birth. Female neonates were term gestations, with no maternal comorbidities and no abnormal events during pregnancy, and were born from spontaneous vaginal deliveries. Because of the small size of

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