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Commentary

Rule out all differentials in episodic vomiting before attributing it to cannabis

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We read with interest the article by Jaishi *et al*. on a 28 years-old male with episodes of hyperemesis [1]. Work-up revealed leucocytosis, positivity for cannabis in the urine and dehydration [1]. Because the patient was excessively using cannabis products since eight years and because he met the Rome IV criteria, his symptoms were attributed to cannabinoid hyperemesis syndrome [1]. The study is appealing but carries limitations that raise concerns and should be discussed.

The main limitation of the study is that various differential diagnoses were not adequately excluded. Episodic hyperemesis can be due not only to chronic cannabis use, but also to eating disorders, Helicobacter pylory infection, hyperparathyroidism, hyperthyroidism, depression, labyrinthine disorders, systemic disorders, and central nervous system (CNS) diseases, such as migraine, increased intracranial pressure, demyelinating disorders, cerebral edema, meningitis, or pituitary adenoma [2]. Therefore, before diagnosing cannabinoid hyperemesis syndrome it is essential to rule out all other possible differential diagnoses. In order to rule out CNS differential diagnoses in particular, cerebral imaging and, if necessary, cerebrospinal fluid investigations are crucial. Cerebral imaging is also mandatory as chronic cannabis use is associated with an increased risk of ischemic stroke [3].

Another limitation of the study is that the cause of chronic cannabis use was not clarified. We should know whether the patient was in psychological treatment not only for withdrawal symptoms but also for post-drug withdrawal. In this respect, the social background, neuropsychological findings, and the assessment of eating disorders, sleep disorders, and psychiatric diseases are missing. Has the patient been referred to a psychiatrist?

It should be explained why all blood tests were normal except for leucocytosis [1]. Patients with recurrent vomiting are expected to present with hyponatriemia, hypochloremia, hypocalcemia, and hypochloremic alkalosis [4]. Because the patient was also diagnosed with dehydration, it should be explained why the haematocrit or the mean corpuscular haemoglobin concentration (MCHC) were not elevated. We should know why renal function was normal. It is also crucial to know if the standard electrocardiogram was indicative of any electrolyte disorders, such as hypokalemia or hypocalcemia.

Overall, the interesting study has limitations that call the results and their interpretation into question. Clarifying these weaknesses would strengthen the conclusions and could improve the study. Before blaming chronic cannabis use for cyclic vomiting, all differential diagnoses need to be thoroughly ruled out. Although the authors proposed a panel of diagnostic measures for work-up of recurrent vomiting in the discussion [1], they only partially carried out these examinations on the index patient.

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