STLM

Systematically Testing the Evidence on Marijuana

Cannabinoid Hyperemesis Syndrome

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Despite being commonly recognized for its antiemetic properties, cannabis has also more recently been associated with cyclic vomiting in some individuals with chronic use.

Background

Cyclic vomiting is defined as episodes of severe recurrent vomiting without a clear cause separated by periods of baseline health.[1]

Cannabinoid Hyperemesis Syndrome (CHS), first described in 2004,[2] is characterized by cyclic vomiting that occurs in the context of chronic daily or near-daily cannabis use. Compulsive use of hot water bathing or showering to relieve symptoms has been described, but is not required for diagnosis. Ultimately, cannabis abstinence is the only documented treatment to date that results in disease resolution,[3,4] though with limited longitudinal follow up data available, the required period of abstinence is poorly characterized.

Evidence Highlights

The majority of CHS research to date has been focused on characterizing the syndrome, exploring acute symptomatic treatments, and attempting to determine the prevalence of CHS cases.

Most patients with suspected CHS present to the emergency department for acute treatment of symptomatic vomiting due to dehydration and the lack of alternate outpatient options for management. These patients often respond poorly to standard antiemetic therapies such as ondansetron and metoclopramide and instead require alternative regimens that can include medications like topical capsaicin,[5-8] antipsychotics,[9-11] and benzodiazepines,[12] as summarized in a 2021 systematic review by Senderovich et al.[3] Notably, this review highlights the paucity of quality data in regards to treating CHS as it describes a total of two randomized control trials and three retrospective cohort studies, with the remainder being case series and case reports.

There is significant overlap of CHS with other cyclic vomiting syndromes, and it remains controversial whether CHS should be characterized as a subset of cyclic vomiting or its own entity.[13] This, in combination with factors such as patients' hesitancy to disclose cannabis use, has led to highly variable reports of CHS prevalence.[14-17]

> **Many therapies for acute symptom control have been proposed but their efficacy is still debated. Stopping cannabis use is the only documented way to resolve CHS.**

Rome IV Diagnostic Criteria

Must include all of the following, with criteria fulfilled for the last 3 months with symptom onset at least 6 months prior to diagnosis
1. Stereotypical episodes of vomiting resembling cyclic vomiting syndrome (CVS) in terms of onset, duration, and frequency
2. Presentation after prolonged use of cannabis
3. Relief of vomiting episodes by sustained cessation of cannabis use
Supportive remark: May be associated with pathologic bathing behavior (prolonged hot baths or showers)

The Rome Foundation. Rome IV Criteria. Rome Foundation. Published January 16, 2016. Accessed September 21, 2022. https://theromefoundation.org/rome-iv/rome-iv-criteria/

Clinical Considerations

Making a CHS diagnosis should only occur once more immediately concerning alternate etiologies have been ruled out.

Based on limited evidence, it is reasonable to trial medications such as low-dose haloperidol, topical capsaicin, or benzodiazepines for symptom control early in an acute treatment setting when one has high suspicion for CHS, or after more standard modalities fail to resolve a patient's symptoms when there is diagnostic uncertainty.

Engaging resources such as social workers, addiction specialists, and other community and behavioral supports should be considered when making recommendations for cannabis cessation to patients with chronic cannabis use and suspected CHS.

Resolution of symptoms with cessation of cannabis use is central to the diagnosis of CHS, and a requirement of current proposed diagnostic criteria.[4]

Bottom Line

- Despite the high likelihood that CHS cases will continue to rise in the setting of increased legal access to cannabis,[1,18] we don't fully understand the root cause of CHS or why cyclic vomiting occurs in some individuals with chronic cannabis use but not others.
- Many therapies for acute symptom control have been proposed but their efficacy is still debated. Data on long term treatment options and disease phases, pathophysiology, and prevention is limited.
- Stopping cannabis use is the only documented way to resolve CHS.

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