

FIVE THINGS TO KNOW ABOUT ...

Cannabinoid hyperemesis syndrome

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Cannabinoid hyperemesis syndrome (CHS) is a new and underrecognized clinical syndrome

Cannabis is the most widely used illicit drug in Canada, with 42% of adults reporting usage during their lifetime.¹ Cannabinoid hyperemesis syndrome (CHS) is characterized by recurrent episodes of intractable nausea and vomiting in patients who have been using cannabis daily for years (Box 1).²⁻⁴ Patients with CHS may have numerous visits with their physician before diagnosis, which highlights the underrecognition of this syndrome.⁵

Box 1: Features of cannabinoid hyperemesis syndrome^{2,3}

- Current, heavy cannabis use
- Abdominal pain, epigastric or periumbilical
- Recurrent episodes of severe nausea and intractable vomiting
- Compulsive bathing with symptom relief
- Resolution of symptoms with cannabis cessation
- Failure of standard antiemetics to resolve nausea and vomiting

CHS is characterized by the triad of long-term cannabis abuse, cyclic episodes of nausea and vomiting, and compulsive bathing

Patients with CHS have a history of daily use of natural or synthetic cannabis over a period of years.⁵ They experience incapacitating vomiting that sometimes occurs more than 20 times per day and can last 24–28 hours.² Patients report taking numerous hot showers or baths with relief of symptoms, a learned behaviour termed compulsive bathing, which is pathognomonic for CHS.²

The differential diagnosis for CHS is large

Life-threatening causes of nausea and vomiting, such as intestinal obstruction or perforation and pancreatitis, must be ruled out.^{2,5} Cannabinoid hyperemesis syndrome is most often confused with cyclic vomiting syndrome. Patients with cyclic vomiting syndrome are more likely to have a history of psychiatric illness and a personal or family history of migraines.²

The exact mechanism of hyperemesis associated with long-term cannabis use is unknown

Tetrahydrocannabinol (THC), the active compound in cannabis, binds to cannabinoid receptors (CB₁ and CB₂).⁵ Antiemetic properties are mediated by activation of CB₁ in the hypothalamus, and nausea and vomiting properties by activation of CB₁ in the enteric nervous system. Hyperemesis in heavy cannabis users is thought to occur because of the accumulation of THC in fatty tissues, which leads to enteric stimulation that overrides the effects of the central nervous system.^{2,5}

Treatment is supportive, and remission requires abstinence from cannabis use

Permanent remission of CHS requires cessation of cannabis use.⁴ Standard antiemetics fail to relieve vomiting, but relief has been reported with lorazepam and haloperidol.² Case reports of acute renal failure secondary to CHS have been noted, all of which resolved with intravenous hydration.⁶

References

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