



Introduction

- Cannabinoid hyperemesis syndrome (CHS) is characterized by abdominal pain secondary to chronic cannabinoid use (Table 1) [1].
- CHS linked to the Transient Receptor Potential Vanilloid-1 (TRPV-1) system, associated with antiemetic effects when activated by noxious heat and capsaicin [2]. Chronic cannabinoid use may downregulate TRPV-1 signaling, leading to alterations in gastric motility and emesis.
- Topical capsaicin activates TRPV-1 and may be a potential analgesic therapy.

Rome IV Criteria for Cannabinoid Hyperemesis Syndrome
1. Criteria fulfilled for at least three months and symptomatic onset at least six months before diagnosis
2. Episodic vomiting resembling cyclical vomiting syndrome in onset, duration, and frequency
3. Clinical presentation after heavy use of cannabis for extended periods of time
4. Relief of vomiting after cessation of cannabis use
5. Frequent associations with certain bathing behaviors including prolonged hot baths and showers

Table 1: Rome IV Criteria for Cannabinoid Hyperemesis Syndrome

Case Report

- 34-year-old female at 11 weeks gestation presented with epigastric pain and intractable nausea and vomiting.
- Past workup: esophagogastroduodenoscopies, gastric emptying studies, and UDS positive for cannabinoids (CBD).
- Patient reported using only CBD drops, but a urinary confirmatory test for CBD showed that a tetrahydrocannabinol (THC) metabolite was 123 (positive at >15 ng/ml).
- She was treated with various antiemetic medications, but eventually required total parenteral nutrition.
- The Chronic Pain service was consulted, and she was started on IV methocarbamol and hydromorphone due to limited oral options.
- After further case review and discussion with Gastroenterology, there was growing concern for CHS.
- 0.025% capsaicin was applied to the abdomen topically three times daily with improvement in pain.
- Given good improvement, she was able to be discharged home on oral oxycodone and cyclobenzaprine.

Discussion

- Pregnancy limits treatment options due to risk for fetal exposure. Topical agents were preferred due to less systemic absorption and fetal exposure.
- Studies have shown symptomatic improvement in CHS with topical capsaicin, which is classified as Pregnancy Class B [3-5].
- In summary, this patient was initially diagnosed with hyperemesis gravidarum, and only after further history-taking and testing was CHS considered. **We present a successful case of a pregnant patient with severe CHS who improved with topical capsaicin.**
- Further study is required to better elucidate the degree and length of effect, especially in pregnant patients.

References

[1] Chu F, Cascella M. Cannabinoid Hyperemesis Syndrome. [Updated 2023 Jul 3]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK549915/>

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