Successful Treatment of Cannabinoid Hyperemesis Syndrome with Capsaicin

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Background
- Cannabinoid hyperemesis syndrome (CHS) is characterized by refractory cyclical vomiting and abdominal pain in chronic cannabis users.
- Symptom relief with hot bathing and cessation of cannabis use are major diagnostic criteria.
- Capsaicin cream and heat both activate the TRPV1 receptor which may be a common path to symptom relief when used for CHS.

Case Series

Case 1
- A 25-year-old woman with a history of daily cannabis use and previous CHS presented with nausea and vomiting over 15 hours initially relieved by hot showers.
- Multiple antiemetics failed to relieve refractory vomiting over 4 hours in the ED.
- Labs were non-diagnostic.
- Capsaicin 0.075% cream was applied to the abdomen and back with complete symptom resolution within 20 minutes.

Case 2
- A 23-year-old man with a history of daily cannabis use presented with 30 episodes of vomiting over 2 days.
- Abdominal CT and labs demonstrated no cause for the patient’s symptoms.
- Capsaicin 0.075% cream was applied to the abdomen and torso with resolution of symptoms on re-evaluation 90 minutes later.

Case 3
- A 42-year-old woman with history of daily cannabis use presented with 20 episodes of vomiting over 4 hours. Prior similar episodes were relieved only by hot baths.
- Previous work up over 5 years including abdominal MRI, ultrasound, CT and HIDA scan was non-diagnostic.
- Abdominal X-ray, ultrasound, and labs were normal.
- Capsaicin 0.075% cream was applied to the abdomen with complete symptom resolution on re-evaluation 2 hours later.

Discussion
- The pathophysiology of CHS is incompletely understood.
- Relief with hot water suggests a role for TRPV1, a G protein coupled receptor activated by the endocannabinoid system and heat.
- TRPV1 is the only known receptor for capsaicin.
- To date, no studies of capsaicin treatment for CHS have been published.

Conclusions
- In this case series, capsaicin 0.075% cream was effective in treatment of CHS.