

Henry Ford Health

Henry Ford Health Scholarly Commons

Emergency Medicine Articles

Emergency Medicine

7-29-2021

A focused, longitudinal analysis of cannabinoid hyperemesis syndrome symptomatology

Philip H Ma

Katherine M. Joyce

Henry Ford Health, kjoyce2@hfhs.org

Thayer Morton

David W. Shih

Henry Ford Health, dshih1@hfhs.org

Alexander Weiss

Henry Ford Health

See next page for additional authors

Follow this and additional works at: https://scholarlycommons.henryford.com/emergencymedicine_articles

Recommended Citation

Ma PH, Joyce KM, Morton T, Shih DW, Weiss A, and Miller J. A focused, longitudinal analysis of cannabinoid hyperemesis syndrome symptomatology. *Int J Emerg Med* 2021; 14(1):44.

This Article is brought to you for free and open access by the Emergency Medicine at Henry Ford Health Scholarly Commons. It has been accepted for inclusion in Emergency Medicine Articles by an authorized administrator of Henry Ford Health Scholarly Commons.

Authors

Philip H Ma, Katherine M. Joyce, Thayer Morton, David W. Shih, Alexander Weiss, and Joseph B. Miller

LETTER TO THE EDITOR

Open Access



A focused, longitudinal analysis of cannabinoid hyperemesis syndrome symptomatology

Philip H. Ma¹ , Katherine M. Joyce², Thayer Morton³, David W. Shih^{2,4}, Alexander Weiss² and Joseph Miller^{2*}

Keywords: Cannabinoid hyperemesis syndrome, Cyclic vomiting, Cannabis

To the Editor,

After reading the review article titled “The emergency department care of the cannabis and synthetic cannabinoid patient: a narrative review” by Kevin Takakuwa and Raquel Schears published in the *International Journal of Emergency Medicine* (2021 Feb 10;14(1):10), we want to first congratulate the authors for the successful publication of this article. Additionally, we hope to contribute some of our findings to further enhance this line of research.

Introduction

As the legalization of cannabis continues to spread in North America, it has become increasingly important for physicians to recognize and treat cannabinoid-related syndromes. In this secondary analysis of a randomized controlled trial that studied the effect of topical capsaicin on patients presenting to the emergency department (ED) with cannabinoid hyperemesis syndrome (CHS), we describe symptomatology and return visits in patients suffering from CHS [1].

Results

Our study population consisted of 29 participants with a mean age of 30 years. Most patients were Black (90%) and hypertension was the most frequent comorbid condition (28%). All participants experienced nausea and vomiting. Other reported symptoms included abdominal

pain (90%), chills (52%), and diarrhea (27%). Abdominal pain was mild (mean visual analog scale (VAS) 2.7 ± 1.2 cm) compared to nausea (mean VAS 7.3 ± 2.5 cm). Sixteen patients accounted for 41 repeat ED visits and 10 hospitalizations for CHS-related symptoms within 6 months.

Discussion

Data indicates that the increased accessibility of cannabis in the USA is associated with an increase in cannabis-related conditions presenting to the ED [2]. Many of these conditions have only recently been characterized and a clearer understanding of CHS symptomatology may improve its accurate recognition and treatment.

While the majority of published studies of CHS obtain retrospective data or present small case series, this prospective data provides an accurate assessment of patient symptoms and high rates of return visits. It also includes data on a largely Black cohort, whereas most published literature on CHS is inclusive of White patients. We present quantified data on the degree of nausea common among CHS patients and the degree of abdominal pain. Contrary to prior studies, we found that abdominal pain severity is overall mild to moderate, especially when compared to nausea severity [3]. Given these findings, a focus on antiemetic treatment rather than analgesics appears warranted in the initial management of these patients.

* Correspondence: jmiller6@hfhs.org

²Henry Ford Hospital, Detroit, MI, USA

Full list of author information is available at the end of the article



© The Author(s). 2021 **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>. The Creative Commons Public Domain Dedication waiver (<http://creativecommons.org/publicdomain/zero/1.0/>) applies to the data made available in this article, unless otherwise stated in a credit line to the data.

Conclusions

In this cohort of CHS patients, it was found that nausea was a larger concern for patients than abdominal pain and that repeat encounters for related symptoms were common. As cannabinoid use becomes more mainstream, physicians in all settings should include CHS in their differential when faced with GI symptoms.

Abbreviations

CHS: Cannabinoid hyperemesis syndrome; VAS: Visual analog scale; CVS: Cyclic vomiting syndrome

Acknowledgements

We would like to thank the Department of Emergency Medicine at Henry Ford Hospital for supporting this research.

Authors' contributions

All authors were involved in writing and manuscript editing. JM and PM conceived the design. JM performed analysis. The authors read and approved the final manuscript.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Availability of data and materials

Data is not publically available

Declarations

Ethics approval and consent to participate

The study was approved by the institutional review board and all participants provided written consent.

Consent for publication

Not applicable

Competing interests

The authors declare that they have no competing interests.

Author details

¹Wayne State University School of Medicine, Detroit, MI, USA. ²Henry Ford Hospital, Detroit, MI, USA. ³Michigan State University College of Osteopathic Medicine, East Lansing, MI, USA. ⁴Schulich School of Medicine & Dentistry, London, Ontario, Canada.

Received: 2 July 2021 Accepted: 10 July 2021

Published online: 29 July 2021

References

1. Dean DJ, Sabagha N, Rose K, Weiss A, France J, Asmar T, et al. A Pilot Trial of Topical Capsaicin Cream for Treatment of Cannabinoid Hyperemesis Syndrome. *Acad Emerg Med*. 2020;27(11):1166–72. <https://doi.org/10.1111/acer.14062>.
2. Monte AA, Shelton SK, Mills E, Saben J, Hopkinson A, Sonn B, et al. Acute illness associated with cannabis use, by route of exposure: an observational study. *Ann Intern Med*. 2019 Apr 16;170(8):531–7. <https://doi.org/10.7326/M18-2809>.
3. Simonetto DA, Oxentenko AS, Herman ML, Szostek JH. Cannabinoid hyperemesis: a case series of 98 patients. *Mayo Clin Proc*. 2012;87(2):114–9. <https://doi.org/10.1016/j.mayocp.2011.10.005>.

Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Ready to submit your research? Choose BMC and benefit from:

- fast, convenient online submission
- thorough peer review by experienced researchers in your field
- rapid publication on acceptance
- support for research data, including large and complex data types
- gold Open Access which fosters wider collaboration and increased citations
- maximum visibility for your research: over 100M website views per year

At BMC, research is always in progress.

Learn more biomedcentral.com/submissions

