

Introduction

Hyperemesis Gravidarum (HG) has been predicted to occur in roughly 0.3-3% pregnancies [1-4]. HG is classified as the most extreme form of nausea and vomiting experienced during pregnancy and one of the leading causes of hospitalizations in pregnant women just after preterm labor [5-6]. Classical clinical presentation includes severe vomiting, often associated with dehydration, maternal weight loss, ketonuria, nutritional deficiencies, electrolyte disturbances, and/or low birth weight [5]. Although this disorder afflicts a small population of pregnant individuals, the lack of education and services available to those that suffer from this disease has created a significant deficiency in quality of care that is affecting these vulnerable patients.

Objectives

Provide an overview of what Hyperemesis Gravidarum is, the current pathophysiological theories of the condition, patient perspectives, current care standards of patients suffering from this condition, and to highlight the need for understanding and support on the provider side of medicine.

Helping providers better understand Hyperemesis Gravidarum

Merhavy, C. E.¹ & Merhavy, Z.I.¹ ¹Ross University School of Medicine

Pathophysiological Theories



- Hormonal Changes
- Increased TNF-a
- Human Chronic Gonadotropin
- Increased Estrogen
- Gastrointestinal Changes
- Relaxation of esophageal sphincter or pH changes due to hormone changes
- Genetics
- GDF15 and IGFBP7

Current Care and Treatment

HG is the second leading cause of hospitalization in pregnant females next to premature labor, and yet this condition lacks a set diagnostic criteria or treatment plan [5-6]. Currently, the advised treatment plan is listed in the accompanying figure, which is often advised to be paired with a bland diet. Patients that become hypovolemic due to inability to maintain fluid and diet intake are often started on regular IV fluid administration that can be required for the length of their pregnancy and is often associated with out-of-pocket cost [3].

Patients that experience HG can experience intractable vomiting, exceeding fifty times per day, and are unable to take oral medications [3].



Patient Experience

Through the review of data collected from several teams on the trials HG patients face, there were several key shared experiences:

- Evident need for set diagnostic criteria
- Evidence of lack of support in clinical setting for patients
- Lack of variety and affordability of treatment
- PTSD

Discussion

- While the condition of HG is rare and considered temporary, this condition can have serious lasting effects on patients that experience this illness, and medical providers should be educated on the need to provide the care these patients require.
- The authors of this project hope to draw attention to the need for a set diagnostic criteria and further research into the treatment of these individuals in the hope that this can help better the patient experience
- Overall, the need for more empathy and education of providers caring for patients with HG is the main goal of this paper.



References

- Havnen, G. C., Truong, M. B., Do, M. H., Heitmann, K., Holst, L., & Nordeng, H. (2019). Women's perspectives on the management and consequences of hyperemesis gravidarum - a descriptive interview study. Scandinavian Journal of Primary Health Care, 37(1), 30-40. doi:10.1080/02813432.2019.1569424
- Koudijs, H. M., Savitri, A. I., Browne, J. L., Amelia, D., Baharuddin, M., Grobbee, D. E., & Uiterwaal, C. S. (2016). Hyperemesis gravidarum and placental dysfunction disorders. BMC Pregnancy and Childbirth, 16(1), 374. doi:10.1186/s12884-016-1174-7
- Jennings LK, Mahdy H. Hyperemesis Gravidarum. StatPearls Retrieved from: https://www.ncbi.nlm.nih.gov/books/NBK532917/
- London, V., Grube, S., Sherer, D.M., & Abulafia, O. (2017). Hyperemesis gravidarum: A review of recent literature. Pharmacology 2017(100), 161-171. doi:10.1159/000477853
- Fejzo, M. S., Sazonova, O. V., Sathirapongsasuti, J. F., Hallgrímsdóttir, I. B., Vacic, V., MacGibbon, K. W., Schoenberg, F. P., Mancuso, N., Slamon, D. J., Mullin, P. M., & 23andMe Research Team (2018). Placenta and appetite genes GDF15 and IGFBP7 are associated with hyperemesis gravidarum. Nature Communications, 9(1), 1178. doi:10.1038/s41467-018-03258-0
- Lindberg, R., Lindqvist, M., Trupp, M., Vinnars, M. T., & Nording, M. L. (2020). Polyunsaturated Fatty Acids and Their Metabolites in Hyperemesis Gravidarum. Nutrients, 12(11), 3384. doi:10.3390/nu12113384