Off-Label Management of Psychogenic Vomiting – A Case Report

Almeida, HS^{*1,2}; Martins da Silva, C¹; Fonseca, C¹

1. Magalhães Lemos Hospital, EPE
2. Department of Neurosciences, Faculty of Medicine of the University of Porto

^{*}hugoalmeida@hmlemos.min-saude.pt

OBJECTIVES

The authors present a case-report of psychogenic vomiting (PV) treated with off-label medication, with further diagnostic and treatment considerations.

MATERIALS/METHODS

Clinical data was used. We reviewed the existing literature in PubMed® database, over the last 20 years, using the query “psychogenic vomiting” OR “functional vomiting”. Thirty four papers were found, of which 15 were selected.

CASE REPORT

40-year-old man, presented to psychiatric consultation complaining of bilateral galactorrhea. He was on **sulpiride** 200mg/id as symptomatic treatment of persistent post-prandial vomiting. Apart from a timpanomastoidectomy due to a chronic otitis media with cholesteatoma, he had no comorbidities. No anxiety or depressive symptoms were found, neither were abnormal findings on gastroenterologic examination.

Following failed trials of **fluoxetine** 40mg/id, **escitalopram** 20mg/id, **metoclopramide** 10mg/3id and **haloperidol** 5mg/id, switch to **olanzapine** 10mg/id resolved both vomiting and galactorrhea. After 2-years, treatment was complicated with weight gain (IMC 29) and new-onset severe obstructive sleep apnea (AHI 63/h; EI 21). Concomitant unemployment due to daytime sleepiness triggered an adjustment disorder with depressive symptoms. Antidepressant medication was started with progressive mood improvement, but antipsychotic dose reduction was limited by the resurgence of symptoms.

With appropriate pneumonologic treatment (with CPAP), nutrition counselling sessions and antidepressant treatment, clinical improvement was achieved with complete remission of depressive symptoms. He is now employed as a carpenter, and was discharged from our hospital. Follows treatment with **olanzapine** 10mg/id with his general practitioner.

THEORETIC CONSIDERATIONS

Psychogenic vomiting is rarely included in epidemiologic studies on eating disorders, with little information on diagnosis and treatment available⁽²⁾. Misdiagnosis of presumed psychogenic vomiting disorders in cases of gastrointestinal disorders is reported in the literature⁽¹⁾, and fuels the debate on the validity of this entity, in favor of a functional gastrointestinal disorder ^(5,7).

Despite being clinically indistinguishable from cases of gastroparesis, both peripheral and central nervous system abnormalities may contribute to its pathogenesis⁽¹¹⁾. Psychosocial factors are believed to play an important role in the majority of cases⁽¹¹⁾.

AREAS INVOLVED IN NAUSEA/VOMIT	LOCATION	IMPORTANT RECEPTORS
• Vomiting Center	CNS	H1, M1, NK1, 5-HT3
• Chemoreceptor Trigger Zone	CNS	5-HT3, D2 , NK1, Chemoreceptors
• Gastrointestinal System	Periphery	5-HT3, Mechanoreceptors, Chemoreceptors
• Vestibular System	Periphery	H1, M1
• Other (Cerebral Cortex, Limbic System, Meninges, Thalamus & Hypothalamus)	CNS	Complex

Its pharmacological treatment is challenging, with reports of antidepressant use^(4,6,8,9) in cases with affective and anxiety disorders comorbidity. The use of psychotherapy⁽³⁾ and gastric electrical stimulation⁽¹²⁾ has been shown of benefit in selected cases. No reports were found on the successful use of medication in non-depressed, non-anxious patients, with off-label medications described based on presumed etiologic pathways⁽¹³⁾.

CONCLUSIONS

The case report presented describes a case of PV, referred to psychiatric care, treated successfully with antipsychotics. Several adverse effects prompted complex pharmacologic management and highlighted the need for a multidisciplinary approach and further investigation on effective treatments.

REFERENCES

1. Nishie, H., Suzuki, T., Ichikawa, H., & Kataoka, H. (2019). Intestinal obstruction caused by small bowel adenocarcinoma misdiagnosed as psychogenic disorder. *BMJ Case Rep*, 12(1). doi:10.1136/bcr-2018-227326

2. Cruz, A. M., Goncalves-Pinho, M., Santos, J. V., Coutinho, F., Brandao, I., & Freitas, A. (2018). Eating disorders-Related hospitalizations in Portugal: A nationwide study from 2000 to 2014. *Int J Eat Disord*, 51(10), 1201-1206. doi:10.1002/eat.22955

3. Chandrashekar, R. (2016). Advantageous Use of Hypnosis in a Case of Psychogenic Vomiting. *Am J Clin Hypn*, 58(4), 347-356. doi:10.1080/00029157.2015.1046981

4. Hsu, W. Y., Huang, S. S., & Chiu, N. Y. (2011). Escitalopram for psychogenic nausea and vomiting: a report of two cases. *J Formos Med Assoc*, 110(1), 62-66. doi:10.1016/s0929-6646(11)60010-7

5. Talley, N. J. (2007). Functional nausea and vomiting. *Aust Fam Physician*, 36(9), 694-697.

6. Mathew, K. K. (2006). Imipramine in persistent vomiting. *J Indian Med Assoc*, 104(11), 641.

7. Olden, K. W., & Crowell, M. D. (2005). Chronic nausea and vomiting: new insights and approach to treatment. *Curr Treat Options Gastroenterol*, 8(4), 305-310.

8. Kirkcaldy, R. D., Kim, T. J., & Carney, C. P. (2004). A Somatoform Variant of Obsessive-Compulsive Disorder: A Case Report of OCD Presenting With Persistent Vomiting. *Prim Care Companion J Clin Psychiatry*, 6(5), 195-198.

9. Bondade, S., Basavaraju, V., & Singh, N. (2016). Use of mirtazapine in functional vomiting. *Aust N Z J Psychiatry*, 50(1), 102-103. doi:10.1177/0004867415602334

10. Pasricha, P. J., Colvin, R., Yates, K., Hasler, W. L., Abell, T. L., Unalp-Arida, A., . . . Hamilton, F. (2011). Characteristics of patients with chronic unexplained nausea and vomiting and normal gastric emptying. *Clin Gastroenterol Hepatol*, 9(7), 567-576.e561-564. doi:10.1016/j.cgh.2011.03.003

11. Zhao, Y., Ke, M., Wang, Z., Wei, J., Zhu, L., Sun, X., & Zhang, J. (2010). Pathophysiological and psychosocial study in patients with functional vomiting. *J Neurogastroenterol Motil*, 16(3), 274-280. doi:10.5056/jnm.2010.16.3.274

12. Reddy Masu, S. C., Lin, Z., Sarosiek, I., Forster, J., & McCallum, R. W. (2010). Efficacy of gastric electrical stimulation in improving functional vomiting in patients with normal gastric emptying. *Dig Dis Sci*, 55(4), 983-987. doi:10.1007/s10620-009-0818-0

13. Chepyala, P., & Olden, K. W. (2008). Nausea and vomiting. *Curr Treat Options Gastroenterol*, 11(2), 135-144.