

Seizure Mimics: Oculogyric Crisis Following Metoclopramide-Video

K. Jagadish Kumar¹ H. C. Ashok¹

¹Department of Pediatrics, JSS Medical College, JSS Acaemy of Higher Education and Research, Mysore, Karnataka, India

Address for correspondence K. Jagadish Kumar, MD, JSS Medical College, JSS Acaemy of Higher Education and Research, Mysore, Karnataka 570004, India (e-mail: jagdishmandya@gmail.com).

Int J of Ep

A 9-year-old girl who experienced a seizure disorder was referred to our hospital by a medical practitioner. She presented with recurrent episodes of upward deviation of eyes with neck pain. She had taken tab metoclopramide 10 mg every 8 hours one day before for gastroenteritis. She was aware but unable to voluntary control the attacks. On examination, she had sustained conjugate upward and lateral deviation of the eyes (oculogyric crisis), without loss of consciousness (►**Fig. 1** and ►**Video 1**). Symptoms disappeared rapidly following administration of IV promethazine 0.5 mg/kg slowly, and she remained well during follow-up 1 week later. Oculogyric crisis (OGC) is characterized by a prolonged involuntary upward deviation of the eyes. These episodes generally last for minutes, but can range from seconds to hours. Etiology includes drug-induced reactions, hereditary and sporadic movement disorders, and focal brain zdsions. The majority of OGC cases occurred as adverse effects of neuroleptics and antiemetics. OGC usually disappears within 24 to 48 hours of drug withdrawal. Administration of anticholinergics (benztropine) or antihistamines (diphenhydramine) can alleviate OGC within minutes. The incidence of metoclopramide-induced acute dystonias is 0.2% with female preponderance.¹ A systematic review and meta-analysis revealed that the most common adverse effects following metoclopramide in children were extrapyramidal symptoms (9%), diarrhea (6%), and sedation (6%).² Ozel et al

reported acute dystonic reaction due to metoclopramide in a 20-year-old female, which was misinterpreted as conversion disorder and seizure.³ Acute dystonic reactions due to metoclopramide can be confused with conversion disorders, seizures and encephalitis.^{1,3} Our patient was also referred to our center by a medical practitioner on account of a seizure disorder.

Differential diagnosis–Epilepsy can present as oculogyric seizures, which are also known as versive seizures. Versive seizures can simulate OGC, but they are associated with an alteration of consciousness and electroencephalogram abnormalities. Paroxysmal tonic upward gaze involves episodes of sustained conjugate upward deviation of the eyes along with the presence of neck flexion and concomitant episodic ataxia. Tic eye movement in children is a stereotyped conjugate deviation of the eyes upward and outward. OGC is more sustained than eye movement tics.

Metoclopramide is an antiemetic, dopamine D2 receptor antagonist. The side effects, although dose independent, occur more frequently at high doses and among females. Therefore, pediatricians should know the clinical presentations of acute dystonic reactions and their differential diagnosis by obtaining a good complete history and thorough clinical examination. It is important for the treating pediatricians to know the potential side effects of the drugs used and how to treat them.



Fig. 1 Conjugate upward and lateral deviation of the eyes (oculogyric crisis).

Video 1

Oculogyric crisis. Online content including video sequences viewable at: <https://www.thieme-connect.com/products/ejournals/html/10.1055/s-0040-1715768>

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Conflict of Interest

None declared.

References

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