

Video Abstracts

Oculogyric Crises

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Abstract

Background: Oculogyric crises are involuntary movements of the eyeballs and can occur due to different etiologies.

Phenomenology Shown: This video abstract shows a man with oculogyric crises due to side effect of neuroleptics.

Educational Value: Oculogyric crises are easy to recognize if once seen.

Keywords: Neurology, dystonia, oculogyric crises, drug-induced dystonia, basal ganglia

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Ethics Statement: The patient that appears on video has provided written informed consent; authorization for the videotaping and for publication of the videotape was provided.

A 20-year-old male was referred to the neurological outpatient clinic because of recurrent episodes of involuntary, dystonic upward deviation of his eyes. He reported symptom onset 4 years prior to the consultation. Owing to a psychiatric disorder he used quetiapine. When he first experienced these episodes, the dose was very high, 1,600 mg per day. The past 4 years he had been prescribed quetiapine at different doses from 200 mg up to 1,600 mg per day. Aripiprazol was also prescribed for a short period. He had symptoms in his eyes regardless of the antipsychotic dosage, but more frequently with increasing doses.

At the time of consultation he was using quetiapine 200 mg and asenapin 10 mg per day, and at that time he had approximately 10 attacks per month. The involuntary movements affected his eyes and came in episodes, usually in the afternoon or when he was tired. Sleep or rest relieved the complaints. He described painful eye movements where the eyes were forced upwards and sometimes the neck was simultaneously forced backwards. The attacks were described very similarly each time they occurred, and they were thought to be related to the antipsychotic medication. The patient was not able to voluntarily control the attacks.

He brought a video to the consultation from one of these episodes. The video showed oculogyric crises with forced upward gaze and increased eye blinking (see Video 1).

Oculogyric crises are defined as spasmodic movements of the eyeballs into a fixed position, usually upwards. These episodes generally last minutes, but can range from seconds to hours.¹ At the same time there is often increased blinking of the eyes and these episodes are frequently accompanied by pain. The patient can also experience neck dystonia and/or tongue protrusion. Oculogyric crises can be triggered by neuroleptics or other medication such as dopamine receptor antagonists.^{2–4} Oculogyric crises are rarely reported with quetiapine in the literature.^{5,6} Emotional stress and fatigue seem to worsen or induce these episodes. The onset of these attacks is often abrupt. Rest and sleep may help.



Video 1. A patient with oculogyric crises.

Oculogyric crises can also be seen secondary to different neurological conditions such as those affecting the production of dopamine, like neurotransmitter disorders, or disorders affecting certain parts of the brainstem, such as multiple sclerosis and encephalitis.¹

The treatment involves withdrawal or reduction of neuroleptics, benzodiazepines or anticholinergics or replacing the neurotransmitters where dopamine is lacking.

Our patient had fewer episodes of involuntary eye movements after reducing the daily dosage of quetiapine. Owing to the underlying psychiatric disorder, it was not possible to discontinue the medication.

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