

Cetirizine: an antihistamine associated with dystonia and oculogyric crisesFaizan Imran Bawany,¹ Muhammad Shahzeb Khan,² Muhammad Naeem,³ Atif Bilal Shoaib⁴

Madam, cetirizine hydrochloride, an antihistamine, is the active constituent of Zyrtec® that functions as competitive peripheral H1 receptor inhibitor.¹ Cetirizine is known to have reduced blood-brain barrier penetration due to its larger mass, lipophobic properties and increased attraction for peripheral H1 receptors. Oculogyric crisis is a neurologic impairment defined by bilateral dystonic, commonly upward, conjugate eye movements. Various drugs including cefixime, olanzapine and metoclopramide have been associated with this adverse complication.

Just recently, Food and Drug Administration (FDA) associated cetirizine with potential signs of severe risk for oculogyric crisis.² A retrospective study has established that cetirizine causes oculogyric complications particularly in the paediatric population (8 paediatric cases out of a total of 9 cases) with dosage extending from 5 to 10mg and commencement of symptoms varying from 3 to 184 days.³ Confirmed rechallenge data were seen in 6 cases of oculogyric crisis while 8 cases underwent thorough neurologic consultation with radiographic proceedings. The study concluded that intensive neurologic examinations may be evaded if healthcare providers identify oculogyric crisis. It is believed that cetirizine-induced dystonia and oculogyric crisis is due to blockage of dopamine receptors in the central nervous system, resulting in dopaminergic-cholinergic disproportion.

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^{1,2,4}Medical Students, Dow University of Health Sciences (DUHS), Karachi, Pakistan, ³Research Fellow at Rhode Island Hospital, USA.

Correspondence: Faizan Imran Bawany. Email: faizby1@hotmail.com

Although rare, cetirizine-induced dystonic reactions have been reported in the past. For instance, a 6-year-old boy taking 5mg cetirizine for 3 days, developed spontaneous deviation of jaw and dysphagia.⁴ The patient was administered an equal dose of biperiden, an anticholinergic, before the symptoms subsided.⁴ In another report of 2006, a child presented with dystonic reaction 18 days post cetirizine treatment (5mg every day).⁵

FDA inclusion of cetirizine into "Drugs to Watch List for Oculogyric Crises" does not mean that healthcare professionals should stop prescribing the drug or the patients should stop taking it. Despite reports of cetirizine-induced cases of dystonia and oculogyric crisis, no matter how few, FDA is still investigating the matter to determine the necessity for any supervisory step. Until any conclusive wordings from the agency, cetirizine remains very crucial for patients presenting with different types of allergies.

References

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