

## Case Presentation

# Hydroxyzine-Induced Dystonia

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## Introduction

Dystonia is abnormal, involuntary muscle movements due to sustained muscle contractions resulting in twisting and/or repetitive, patterned movements. In children, dystonia is more commonly secondary and thus usually represents a symptom caused by an underlying brain disorders. Triggers include infection and drugs such as Clonazepam, Penicillamine, Haloperidol, Clozapine, Risperidone, Meta Chlorpropamide and Ondansetron or drug withdrawal [1].

Antihistamines are widely used drugs for allergy types, travel sickness, common cold, anxiety, tension and sedation. Therefore intoxications with these drugs are commonly seen. Hydroxyzine is a first-generation antihistamine and cross the blood-brain barrier. Its therapeutic category is an anxiety agent, antiemetic, antihistamine and sedative [2]. Here in we reported a 1 year old boy developed dystonia 12 hours after administration of a single dose hydroxyzine.

## Case Presentation

A 1 year old boy was staying in the hospital with his mother and inpatient 6 years old elder sister suffering from pneumonia. His early developmental milestones were normal. There was no history of trauma, infection, vaccination, or drug use within the last 2 weeks. He was fussy and the night doctor gave him 1 mg/kg hydroxyzine orally, 12 hours later he manifested as torticollis, retrocollis and his tongue protruded. Ten minutes after administration of 0.04 mg/kg biperiden intravenously, he recovered. Dystonia did not recur in his 1 month follow-up.

## Discussion

Hydroxyzine is a widely used antihistamine from neonatal periods until elderly ages. It is one of the most potent Histamine1 (H1) receptor antagonists, has strong antipruritic effects and is widely used for skin allergies. Hydroxyzine is rapidly absorbed from the

### Abstract

Hydroxyzine is a widely used H1 antihistamine for its anti anxiety, antiemetic, antihistamine and sedative effect. Dystonia is more commonly secondary to brain disorders, infections or drugs in children. We reported a 1 year old boy developed dystonia 12 hours after administration of a single therapeutic dose of hydroxyzine.

**Keywords:** Antihistamines; Dystonia; Hydroxyzine

gastro-intestinal tract with a peak blood-level of about two hours after oral administration [3]. Common adverse-effects of hydroxyzine in children include adverse central nervous system effects, causing sedation, decreased cognitive function and increased subjective somnolence [4].

However a few cases of cetirizine induced dystonia is reported [5]. We did not encounter hydroxyzine induced dystonia in the literature. We attributed his dystonia to hydroxyzine after his examination and history. To our knowledge, this is the first case reporting dystonia triggered by therapeutic doses of hydroxyzine. It may be that this drug has caused dystonia in the past that was either un-recognized or not reported.

## Conclusion

Regardless, it is important that healthcare professionals be aware of this uncommon yet important adverse event and avoid over-prescription of hydroxyzine.

## References

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