

Drug Induced Acute Dystonic Reaction

A 5-year-old, developmentally normal boy, presented with sudden onset involuntary, persistent, deviation of neck towards left, along with protrusion of tongue and hoarse cry for last 5 hours (**Fig. 1** and **Webvideo 1**). It was associated with neck pain and inability to close the mouth. There was history of fever for 1 day and he received four doses of oral paracetamol (15 mg/kg/dose) over a period of 24 hours. Examination showed spasmodic torticollis to left, persistent open jaw, and protruded tongue. Rest of the neurological examination was essentially normal. Acute onset drug-induced dystonic crisis was considered and child was treated with single intravenous dose of chlorpheniramine (0.2 mg/kg); prompt response was seen with subsidence of dystonic reaction within next 20 minutes. He was observed for next 24 hours, and there was no recurrence of dystonic crisis.

Acute dystonic crisis can occur with antidepressants, dopamine receptor blocking agents, antiemetics and antipsychotics. Drug-induced dystonic reaction commonly present as acute onset focal dystonia characterized by torticollis, tongue protrusion and laryngeal spasm. Paracetamol is a selective inhibitor of cyclooxygenase and in usual doses it does not cross the blood brain barrier. Higher doses may activate central serotonergic pathways resulting in central cholinergic and dopaminergic imbalance. Acute onset cervical dystonia is very unusual with therapeutic dosage of paracetamol.



FIG.1 Spasmodic torticollis to left. (See video at website)

Treatment include immediate withdrawal of offending agent and anticholinergic agents like chlorpheniramine, benzodiazepines or dopaminergic agonists. Acute dystonic reaction is often misdiagnosed as seizure, encephalitis or tetany. Eliciting a through history is important to avoid unnecessary investigations and treatment for this potentially reversible condition.

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NOTICE

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