A Seizuring Child: Accidental Ingestion of an Ancient Remedy

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To the Editor: A 3-y-old boy presented with accidental ingestion of a herbal medication, allegedly meant for his mother for her skin allergy. Post ingestion, child had a generalized tonic seizure lasting for 10 min. He was brought in cardiac arrest. Post revival, child was put on synchronised intermittent mandatory ventilation (SIMV), started on adrenaline and phenytoin infusion. At 2 h, he had a seizure recurrence aborted with lorazepam and phenytoin. On enquiry, mother showed the seed of the herbal remedy and labeled it as '*kuchla*'. Post stabilization, child underwent gastric lavage. Serum and gastric lavage samples and the herbal-remedy seed were sent for toxicological analysis. His laboratory investigations and electrocardiogram done post-resuscitation were normal. Adrenaline infusion was stopped and the child was extubated the same day at 6 h. Patient was discharged on day 3 with stable vitals till 6 mo followup. Electroencephalogram done after discharge was normal. Toxicological analysis performed by Shimadzu GC-MS-QP-2020 NX Gas Chromatography-Mass Spectrometry identified the seed '*kuchla*' as seed of the plant *Strychnos nuxvomica*. Extraction of strychnine from gastric lavage showed strychnine levels of 12.9 mg/L. Strychnine was undetectable in initial blood sample.

We report a child with strychnine poisoning presenting with generalized seizures followed by hypoxic cardiac arrest. One seed contains 1.3–1.5% strychnine [1]. A dose as low as 2 mg can be toxic in children [2]. The stimulatory effects of strychnine are due to the post-synaptic inhibition of glycine receptors in the spinal cord, which leads to increased motor

neuron activity [3] resulting in intense muscle contractions with preserved consciousness or death secondary to respiratory muscle spasm.

Presentation is dramatic. Mainstay of therapy is supportive. There is no specific antidote. Strychnine follows first-order kinetics with half-life of 10–16 h [4]. Blood levels for strychnine maybe unreliable as it appears transiently in the blood and protein binding is minimal with rapid redistribution to the tissues [3]. The closest mimic is tetanus, that usually follows trauma, especially affects the jaws and relaxation in-between spasms is never complete [1]. To conclude, awareness about lethal risks of consuming herbal medications without prescription needs to be created since the plant is widely available across tropics.

Compliance with Ethical Standards

Conflict of Interest None.

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