

## A Complicated Case of Toothache

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### LETTER TO EDITOR

#### To the Editor

Nutmeg is a commonly used spice in Indian cooking, sweets as well as savoury. It's called as Jayphal, Jakai in vernacular language. Traditionally used in Chinese and ayurvedic medicine as an anti-inflammatory and antibacterial, also as an aphrodisiac. There are reports of its use as a recreational drug for "Nutmeg high" by some students in the Western World. Its consumption at higher dose can lead to hallucinations and seizures.

A 32-year-old lady presented to our hospital with sudden onset of altered behaviour, hallucinations, and increased sleepiness. She reported to us as she was suffering from toothache and she consumed an entire nutmeg seed for the same. She presented to our hospital after 3-4 hours of consuming the nutmeg seed.

On evaluation, she was protecting her airway, hemodynamically stable; but was drowsy and waking up to call. Her complete blood counts, kidney function tests and liver function tests were within normal limits. Her ECG revealed sinus rhythm. Her urine toxicology screen was negative. A dentist consultation ruled out dental root abscess. She was monitored and discharged home in a stable condition.

On review of literature, we gathered that nutmeg toxicity is under-reported and hence this communication. Nutmeg is derived from seed of *Myristica fragrans* tree. The effects are primarily but not limited to myristicin, the volatile oil of the spice comprising a mixture of allyl benzene derivatives and terpenes. Myristicin is metabolised to 3-methoxy-4,5 Methylene Dioxymphet Amine (MMDA), the other chemical is elemicin, which is known to cause decreased muscle co-ordination and activity. MMDA is a sympathomimetic and hallucinogenic, most reported cases are due to hallucinogenic effects. Myristicin also has weak monoamine oxidase inhibitor activity. The other components of myristicin namely linalool, safrol, eugenol and isoeugenol are similar to serotonin agonists and are implicated in the cardiovascular response. Trimyritin is linked to serotonergic and GABAergic activity is also found in the nutmeg extract. These components are involved in the symptomology of

toxicity involving central nervous system and cardiovascular system. Sometimes the toxidrome may mimic belladonna alkaloids or atropine toxicity with symptoms like dry and flushed skin, tachycardia and urine retention, in these cases the finding of miosis will help clinching myristicin toxicity but not always reliable [1,2].

Symptoms usually appear 2 to 3 hours post ingestion. Usual dose reported is 2 table spoons of grounded nutmeg or 1-3 whole nutmegs [3]. Treatment is mainly supportive. Activated charcoal may reduce further absorption our patient as-well was administered the same. Regular reassurance is required as they will be anxious and they will have a fear of impending doom, in severe cases a benzodiazepine may be indicated to reverse the amphetamine like effects.

Nutmeg toxicity is under-reported, intoxication after voluntary overdose is uncertain like in our case. In the era of health influencers on social media and experimentations, nutmeg toxicity needs to be a thought as a differential diagnosis by the clinician and a good history along with clinical presentation will help clinch the diagnosis. Inadvertent overdosing by the chefs sometimes is also a possibility, and not to forget 'mixing of nutmeg' with other intoxicants for low cost "high" in the ever-increasing recreational activities in the present time needs to be kept in mind by the treating clinician.

Kind regards,

Ganesh KM

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