

## LETTER TO EDITOR (VIEWERS CHOICE)

### MARGOSA (NEEM) OIL POISONING

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A 30 months old boy who presented to emergency services with multiple episodes of vomiting followed by generalized tonic clonic seizure since last 10 minutes. There was no history of head injury or previous history of seizure. He had an uneventful perinatal period and normal developmental scores. Family history was also non contributory. Child was emergently managed with injectable anti-epileptic drugs but seizure was refractory and controlled with high dose midazolam infusion. Child was also supported with mechanical ventilation due to poor respiratory efforts. Biochemical reports were normal for liver and kidney function tests, blood gas analysis revealed mild metabolic acidosis and hemogram revealed mild leucocytosis (total Leucocytes Count=18400/cmm). Cerebrospinal fluid analysis was normal. Child was extubated successfully after 24 hours and discharged after 2 days on oral anticonvulsants. Detailed history revealed that child had consumed margosa oil accidentally about 30 minutes prior to these events, which was in reach of the child and was used by family as a medicine for skin diseases. At discharge, EEG and MRI brain were done which revealed normal study and at 3 months follow up he was neurologically normal.

Margosa (Neem) tree is traditionally known as tree whose every part is beneficial. It is endemic in Indian subcontinent. Extract from its seed (Margosa oil) is claimed to be beneficial in myriad spectrum of illnesses from running nose, skin allergy to insect repellent to rheumatic diseases, tuberculosis and even cancers. (1) The oil is a mixture of many steroids, triglycerides and terpenoids along with minimal amount of aflatoxins. (2) Ingestion of margosa oil has been found to be associated with toxic encephalopathy, Reye's syndrome and metabolic acidosis. Sinniah et al noted extensive mitochondrial damage in liver, proximal tubule of kidneys and brain of mice that were experimentally ingested margosa oil. (3) They later on reported many cases of Reye's like syndrome in children and infants with margosa oil ingestion. (4) Lai et al reported reversible toxic encephalopathy in infants with margosa oil ingestion and noted that even few drops can have such effects. (5) Our case presented with refractory seizures and no hepatic derangement was noted. Although neurological sequelae in form of cognitive dysfunction, choreoathetoid movement and loss of sphincter control has been reported after margosa oil poisoning (6), there was no neurological sequelae noted in our patient. MRI brain was also normal though altered signal intensity lesions were noted in putaminal and internal capsule regions in an adult survivor. (7) The treatment is symptomatic with no antidote known although steroid, glucose and carnitine had been tried with no significant benefit. (8) The easy availability of

margosa oil and its promotion without proper warning of these life threatening side effects warrant legislative measures and active awareness. This is a potentially toxic chemical and should be used with vigilance.

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