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Eucalyptus Oil Poisoning

Sir,

A 6-year-old boy presented with status epilepticus within 10 min of accidental ingestion of 10 ml of Eucalyptus oil. He had eight episodes of tonic-clonic convulsions which were controlled with intravenous (i.v.) phenytoin and valproate. There was no previous history of seizures.His Kidney function tests (KFTs), Liver function tests (LFTs), blood sugar, and serum calcium were normal.His electroencephalogram (EEG) showed spikes. Child improved tremendously within 20 h and was discharged.

Another 3-year-old boy presented with status epilepticus within 10 min of accidental ingestion of 5 ml of Eucalyptus oil. He had four episodes of tonic-clonic convulsions which were controlled with i.v. phenytoin. There was no previous history of seizures. His KFTs, blood sugar, and serum calcium were normal. He improved and was discharged.

Eucalyptus oil is a traditional herbal medicine widely used for a number of common ailments.[1-3] Extreme toxicity following ingestion is well-documented, but public awareness is generally lacking.[3] The toxic symptoms are rapid in onset, which include a burning sensation in the mouth and throat, abdominal pain, and spontaneous vomiting.[1,2] The initial central nervous system (CNS) effects are giddiness, ataxia, and disorientation followed by loss of consciousness occurring in 10–15 min.[2,3] Convulsions are rare in adults, but are common in children like in our cases.[1,3] In adults, death is commonly seen after ingestion of 30 ml, but encountered after 4-5 ml also.[1-3] Out of 109 children with Eucalyptus oil ingestion, 59% of them were symptomatic. Minor poisoning (ataxia, vomiting, and abdominal pain) was observed in 30%, moderate poisoning (Glasgow coma scale of 8-14) in 25% and major poisoning with coma (coma scale of 3-7) accounting for 4%. Authors concluded that significant depression of consciousness should be anticipated after ingestion of 5 ml and minor depression of consciousness may occur after 2–3 ml.[4] CNS symptoms can develop within 30 min, although the onset may be delayed for up to 4 h.[2] However, our children developed seizures within 10 min after ingestion and showed complete recovery within 24 h. Similar presentation and recovery was observed by Karunakara and Jyotirmanju also.[3] However, Webb and Pitt observed that there was no correlation between the amount of eucalyptus oil taken and the presence of symptoms.[5] As there is no specific antidote, the management of eucalyptus oil poisoning is mainly supportive and symptomatic.[1-3] The main risk is aspiration following vomiting and CNS depression. Therefore, emesis is contraindicated.[1-3] The role of activated charcoal is controversial.[2] Eucalyptus oil once ingested is widely distributed throughout the body and efforts at elimination by using activated charcoal is unlikely to help significantly.[2] As relatively small amounts of eucalyptus oil can be fatal, it should never be given orally. Because eucalyptus oil is cheap and easily available household medicine; caretakers should be aware of the life-threatening risks of ingestion.

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Conflicts of interest

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