

### Picture Story

## Two cases of accidental poisoning with *Zamioculcas zamiifolia*

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(Key words: Plant poisoning, *Zamioculcas Zamiifolia*, local inflammation, calcium oxalate)

### Case 1

A 3 year old girl presented with acute onset burning pain of the mouth, swollen lips and tongue and drooling of saliva. She was previously healthy and developmentally normal and was playing on her own inside the house. She suddenly started crying, complaining of severe burning pain of the mouth. Mother gave a history that a few minutes prior to this event she has bitten some leaves broken from one of the indoor plants. On examination, the oral mucosa was inflamed and erythematous and lips were mildly swollen. There was excess salivation. Rest of her examination was normal. Girl was treated symptomatically with antihistamines, recovered completely, and was discharged within 24 hours.

### Case 2

A two and a half year old boy presented with excessive crying and increased salivation. He was previously well and developmentally normal. Mother gave a history that, before the onset of this event he has bitten a leaf broken from an indoor ornamental plant. On examination, he had increased salivation and there was slight erythema of his oral mucosa. He did not need any specific treatment and settled completely a few hours after admission and was discharged within 24 hours.

During both presentations, mothers brought branches of the concerned plant and interestingly both were identified as an ornamental plant which is

known as “Zamia” or “lucky plant” by plant lovers. (Figure 1)

### Discussion

Zamia or Zee Zee (*Zamioculcas zamiifolia*) is a popular indoor plant in Sri Lanka and is considered as a “lucky plant”. It belongs to the plant family Araceae, which is well known for many poisonous genera such as *Philodendrone* due to calcium oxalate<sup>1</sup>. This is also known as emerald palm, or ZuZu Plant. It has air purifying qualities for indoor environments and in a study done in 2014 from the University of Copenhagen has shown that it can remove many volatile organic substances like benzene and toluene effectively from air<sup>2</sup>.

It contains a high concentration of calcium oxalate in its stem and leaves. Calcium oxalate is one of the reported toxic substances associated with plants. These needle like crystals produce severe pain and oedema when contact with lips, tongue, oral mucosa, conjunctiva or skin which is self-limiting<sup>2</sup>.

Management include decontamination of the mouth, eye or skin by removing all plant material and rinsing well with water. If child complains of significant pain, simple analgesics are recommended with antihistamines to manage the local inflammation.

### References

1. Calcium oxalate crystals, exotic rainforest rare tropical plants. Available from: <http://www.exoticrainforest.com/calcium%20oxalate%20crystals.html>
2. Dela Cruz M, Christensen JH, Thomsen JD, Muller R. Can ornamental plotted plants remove volatile organic compounds from indoor air? A review. *Environmental Science and Pollution Research* <https://doi.org/10.1007/s11356-014-3240-x> PMID:25056742

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**Figure 1: *Zamia* or *Zee Zee* (*Zamioculcas zamiifolia*) house plant**