

## A Case Series of Ocular Exposure to *Euphorbia* Plant Species

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### Background

*Euphorbia* is a diverse genus of plants with a worldwide distribution that are frequently used in ornamental landscaping. These plants produce a milky, white sap which contains an irritating latex. Ocular exposure to the sap leads to severe eye pain and injury ranging from keratoconjunctivitis to possible blindness.

### Purpose

The purpose of this study is to report the course of ocular exposure to *Euphorbia* plants in patients with early presentation for emergency evaluation who received supportive care and outpatient follow up.

### Methods

This is a case series of ocular exposures to *Euphorbia* plant species. A retrospective review of patient charts was performed to obtain study data.

### Results

A total of 34 cases were documented. All cases were early presenters within the first 24 hours of exposure. Findings on initial ocular examination included conjunctival injection, keratitis, corneal abrasion, chemosis and/or blepharitis. 19/34 (55.9%) had intraocular pressure and 30/34 (88.2%) had ocular pH documented on initial examination. 26/34 (76.5%) had visual acuity documented on initial presentation. 17/34 (50%) had visual acuity documented on follow up presentation. Treatment consisted of irrigation 34/34 (100%), topical anesthetic drops 11/34 (32.4%), and/or oral pain control 2/34 (5.9%). All 34 (100%) cases were discharged home after evaluation and treatment. Home prescriptions included antibiotics drops 29/34 (85.3%), lubricant eye drops 20/34 (58.8%), and oral or topical pain medications 13/34 (38.2%). 31/34 (91.2%) had documented outpatient follow up, none of which had significant residual visual deficits or apparent long term sequelae.

### Discussion

Exposure to the sap of *Euphorbia* species in this series lead to pain and localized injury. Intraocular pressure and pH were not significantly affected and were not predictors of recovery or severity of injury. Antibiotic drops were prescribed in the majority of cases however their necessity cannot be determined from this series. Ophthalmologic follow up did not affect outcome. No acute ocular emergency or permanent ocular damage was documented on initial presentation or follow up.

### Conclusion

Early evaluation and supportive care is the appropriate treatment. Ocular *Euphorbia* exposure is not uncommon and emergency providers should be aware of the need for early supportive care.