Calotropis Keratitis

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Introduction

Calotropis procera (‘Erukku’ in Malayalam) is a commonly seen shrub with a world wide geographic distribution. (Fig. 1) It is commonly harvested for its medicinal properties. It exudes copious milky sap when cut or broken. (Fig. 2) Ironically, the sap is highly irritant to human tissues especially the skin and mucous membrane.

This article attempts to highlight the importance of recognizing the damaging effects of this plant sap when it comes into contact with the eye and therefore the care one must take while handling this shrub.

Case Report

A thirty year old male who works in an Ayurvedic pharmacy presented with defective vision, redness, irritation and watering in his right eye following accidental exposure to the milky sap of Calotropis (Fig 3a & 3b). (The leaf of Calotropis is used in Ayurvedic system of medicine for the treatment of joint inflammations) Another twenty four year old male presented with similar complaints in his right eye following exposure to the sap while plucking the flowers of Calotropis to make a garland out of it.(Fig 4 a & 4 b). (The garland made from Calotropis flowers is offered to the deity in temples)

Both these patients had identical findings on the slit lamp which revealed lid oedema in one of them due to contact dermatitis, circum corneal congestion, chemosis, corneal haze due to corneal oedema and numerous Descemets Membrane folds. The corneal epithelium was found to be intact. No significant AC reaction was seen. The visual acuity was CF 2M in the affected eye in the first case while it was CF 4M in the second case. IOT was within the normal range in both the eyes. Both the patients responded well to topical Prednisolone Acetate. Over a period of one week, cornea cleared well and the visual acuity improved to 6/6in both the patients

Review of literature revealed that intracorneal penetration of Calotropis latex results in permanent endothelial cell loss with its morphological alteration as confirmed with confocal and specular microscopy. Corneal oedema is believed to resolve well if sufficient viable endothelial cells are still present after resolution of keratitis.

Conclusion

We wish to improve awareness of “Calotropis keratitis” amongst our fellow ophthalmologists, an entity which to the best of our knowledge has not been reported much in the literature. This plant due to its irritant sap can result in corneal blindness when not carefully handled.
References