EXTERNAL EYE ALLERGY FROM SAP OF DIEFFENBACHIA PICTA

SYNOPSIS

A case of external eye allergy from the sap of Dieffenbachia picta is reported. As the plant is abundantly found in the local countryside its potential harmful effect should be recognised.

INTRODUCTION

Allergic reactions from shrubs, grasses, and the seeds and pollen of flowers on the eye are well known (Duke-Eider, 1965; Kinnas, 1971). The sap of some plants eg. Euphorbia royleana (Sood et al, 1971) and Calotropris procera (Maria et al, 1973) have also been observed to be highly irritant on the eye. A case of external eye allergy from the sap of a common shrub in Singapore is reported.

CASE REPORT

A 13 year old Chinese schoolboy was plucking a plant when its sap squirted on to his left eye, causing immediate and intense pain, watering and blepharospasm. He was seen within an hour at the government outpatient dispensary at Somapah Road, in his neighbourhood, when it was noticed that his left eye-lids were grossly swollen. On arrival at the General Hospital, he was unable to open his left eye-lids because of gross and diffused oedema. On opening with the aid of eye-lid retractors, the conjunctiva was found to be injected and chemosed, with a large abrasion involving more than half the corneal surface. The pupil size was normal and reacted briskly to direct light but visual acuity was reduced to 6/24 in his affected eye.

TREATMENT

Treatment consisted of first-aid with saline irrigation. Betnesol N (Glaxo) and phenylephrine eye-drops were instilled and the eye padded with Terracortril (Pfizer) ointment. Piriton (Glaxo) tablets were prescribed.

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Fig. 1. Subsiding eye-lid swelling.

COURSE

The corneal abrasion healed in 3 days but a punctate keratitis persisted till the 5th day. The eye-lid oedema and peri-orbital swelling began to subside by the 4th day when he could open his eye comfortably to show a subconjunctival haemorrhage with ecchymoses. His visual acuity was restored to 6/6 within a week (See Fig. 1).



DISCUSSION

The immediate swelling was probably an allergic reaction and the conjunctival inflammation and corneal abrasion was probably due to chemical irritation and rubbing.

A part of the plant, brought in by relatives, was sent to the Department of Botany, University of Singapore where it was identified as Dieffenbachia picta (Fig. 2), with a comment that its white milky sap "contains a high quantity of calcium oxalate crystals".

As the plant is abundantly found in the local countryside and its thick foliage is popular with

Fig. 2. Dieffenbachia picta.

troops for personal camouflage, it potential harmful effect should be recognised.

REFERENCES

- Duke-Elder, S.: System of Ophthalmology: Diseases of the Outer Eye. Vol. VIII, part 1, p 438, Kimpton, London, 1965.
- 2. Kinnas, J.S.: Ophthalmic lesions due to pine flower pollen. British Journal of Ophthalmology, 55, 714, 1971.
- Maria, D.L., Panse, A.D. and Kulkarni, T.P.: Injury to the eye by sap of Calotropris procera. Eastern Archives of Ophthalmology, 1, 296, 1973.
- Sood, G.C., Lofat, B.K. and Chandel, R.D.: Injury due to the sap of Euphorbia royleana. British Journal of Ophthalmology. 55, 857, 1971.