

larly after a corneal abrasion by vegetable matter or in the setting of contact lens wear. The organism has a distinctive histopathological appearance, but a deep scrape, superficial keratectomy or an anterior chamber tap is required to obtain diagnostic material.

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Sir,

Acute Kerato-uveitis Associated with Topical Self-administration of the Sap of the Petty Spurge (*Euphorbia peplus*)

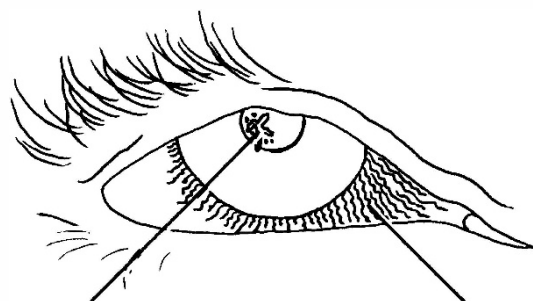
Petty Spurge (*Euphorbia peplus*) (Fig. 1) is a common weed found in gardens and waste-ground and is widely distributed throughout Europe and beyond. It is a member of the family Euphorbiaceae, a diverse group of flowering plants rich in terpenoids and alkaloids which deter herbivores by virtue of their irritant properties on gut, skin and the eye.

Medicinal use of the sap of Euphorbiaceae has been described since ancient times, particularly as a purgative (hence the name 'spurge') and as a wart cure.

Most cases of ocular irritation associated with spurges



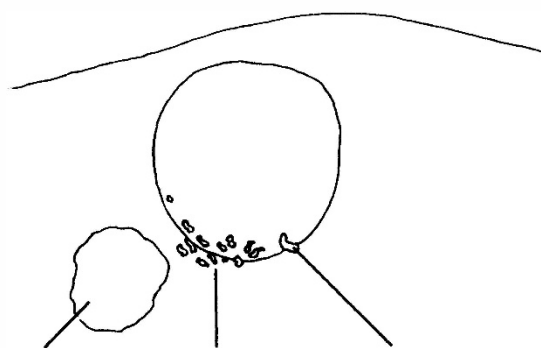
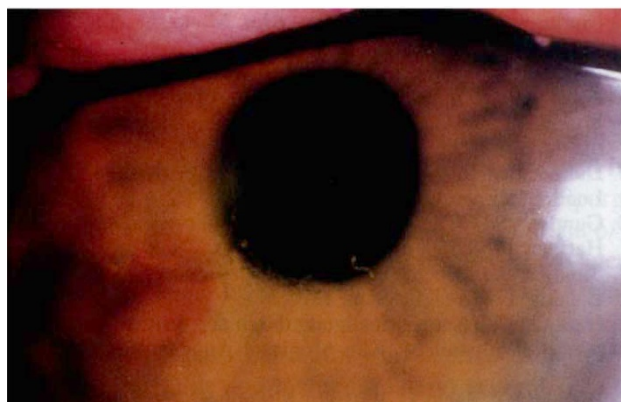
Fig. 1. Petty Spurge (*Euphorbia peplus*). (Specimen height 15 cm.)



Epithelial loss with surrounding epithelial oedema, stained with fluorescein

Circumcorneal injection

Fig. 2. The eye 20 hours after topical application of Petty Spurge sap to the lid.

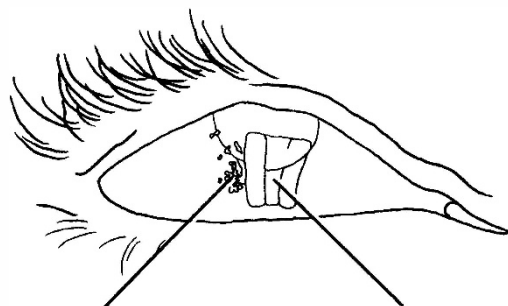


Epithelial loss

Oedematous epithelium

Epithelial filament

Fig. 3. Corneal appearance 20 hours after topical application of Petty Spurge sap to the lid.



Irregular corneal light reflex

Fibrinous anterior chamber reaction and fluorescein flare

Fig. 4. Anterior chamber 20 hours after topical application of Petty Spurge sap to the lid.

have occurred in a horticultural setting, but this case documents sequelae of deliberate topical application of Petty Spurge sap in an attempt to cure a wart of the eyelid.

Case Report

A 65-year-old woman had noted a tiny warty lesion on her right lower eyelid and was advised by a friend that the

milky sap of Petty Spurge would cause it to regress. A few hours after application of spurge sap to the lid, the eye became sore, symptoms progressing despite copious irrigation with water. She presented some 20 hours later, by which time her complaints were of a painful, stinging, watering eye, with blurred vision. Snellen acuity was 6/24 right (6/18 with pinhole) and 6/18 left (6/12 pinhole).

On examination, the right eye was injected, the cornea oedematous with loss of central epithelium and a marked anterior chamber reaction was present with cells (++) and fibrin (Figs. 2–4). Intraocular pressure was reduced to 10 mmHg compared with 16 mmHg in the fellow eye. There was bilateral mild posterior subcapsular lenticular opacification but no abnormality of either posterior segment.

The patient was treated with chloramphenicol ointment twice daily, betamethasone 0.1% drops four times daily, and cyclopentolate 1% twice daily to this eye. The next day, corneal oedema had increased with marked folding of Descemet's membrane, but a reduction in the anterior chamber inflammation. By day 6, corneal oedema was subsiding with only fine punctate fluorescein staining of the epithelium. Intraocular pressure had normalised and the anterior chamber examination showed cells (+) and mild flare. When next reviewed 2 weeks after the incident, the eye was quiet and vision returned to its previous level after cessation of topical treatment.

Discussion

The Spurge family (Euphorbiaceae) is one of the largest and most diverse families of flowering plants, comprising some 300 genera and over 7000 species, distributed over much of the globe. Toxicity has evolved as a means of deterring attack by vertebrate or invertebrate herbivores and many species have irritant properties on the human gut, skin and eye.

The sap of the Euphorbiaceae is a viscous latex with contact irritant properties mainly due to the presence of polycyclic diterpene esters.¹ Toxicity is variable between and within genera; the genus *Euphorbia*, which includes Petty Spurge (*E. peplus*), has some species with no apparent ill-effects on the eye,² while the sap of others may cause conjunctivitis, keratoconjunctivitis and uveitis.^{3–8} Cases of ocular toxicity from other Euphorbiaceae were described in the older literature and include iridocyclitis with hypopyon, ulceration and blindness; these have been reviewed by Duke-Elder.⁹

Despite the widespread distribution of Petty Spurge, and its traditional use as a wart cure, documented since ancient Greek times,^{10,11} case reports of ocular toxicity from Petty Spurge sap are rare. Self-limiting cases of Petty Spurge sap keratoconjunctivitis have been described in the German literature,^{5,12} but little attention has been paid to the condition recently in English language journals. A similar case to that reported here was described by Biedner and co-workers.¹³ Topical application of Petty Spurge sap to warts on both eyelids resulted in a similar clinical picture with marked corneal oedema and fibrinous uveitis. Vision recovered from counting fingers to 6/6 after a 4 day course of atropine and chloramphenicol.

It thus appears that ocular irritation from the sap of the Petty Spurge, though severe and potentially sight-threatening, can generally be managed on an outpatient basis with simple topical therapy.

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Sir,

Euphorbia lathyris Latex Keratoconjunctivitis

The genus *Euphorbia* contains a large number of species world wide, many with a highly irritant white latex. Twenty-one are found in the United Kingdom;¹ these include some common weeds, ornamental house plants and rock garden perennials. Extracts from several members of the genus have been used for medicinal purposes since antiquity, but because of the caustic nature of these chemicals they also represent a serious potential hazard. There are several reports in the literature over hundreds of years of such toxic reactions. We report on 3 cases involving *Euphorbia lathyris* (Caper Spurge) that led to a severe keratoconjunctivitis (not previously reported in the English literature). We wish to highlight the potential diagnosis to ophthalmologists and warn unwary gardeners of the dangers.

Case Reports

Case 1. An 83-year-old man cut down a large weed (later identified as Caper Spurge) growing next to his house. Within 3 hours both eyes began weeping copiously. He woke up early the next morning with a severe retro-orbital headache, painful eyes worse on movement, photophobia,