
LETTERS TO THE JOURNAL

Sir,

Demonstrating Astigmatism

I have found that medical students, GPs, nursing staff, etc., have great difficulty with the concept of astigmatism, its correction, and optical aberrations from correcting spectacles. It is difficult to demonstrate unless individuals have access to cylindrical lenses. I used the following method to demonstrate astigmatism at a lecture to about 100 non-ophthalmic personnel.

Place a transparency of typed text onto an overhead projector and focus the image on the screen/wall. Over this put a tube, long axis vertical, 10 cm wide at its base tapering to 2.5 cm at the top and about 20 cm long. The ideal apparatus is already in most eye departments, being the outer sleeve of a spring-loaded cotton wool dispenser. The taper at the top allows cylindrical lenses to be rested on the top of the tube.

Put a +6 dioptre cylindrical lens on the tube. This distorts the projected image which is then corrected by a -6 DC lens correctly aligned. Rotating the cylindrical lenses with respect to each other demonstrates the image degradation and distortion typically experienced by astigmatic patients.

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Sir,

Generalised Urticaria Induced by Topical Cyclopentolate

Cyclopentolate is a widely used mydriatic and cycloplegic agent. Systemic adverse reactions are uncommon, mostly comprising central nervous system disturbances. These include confusion, psychosis, cerebellar dysfunction and seizures.¹ Gastrointestinal disturbance may also occur in neonates.² We report a case of generalised urticaria induced by topical cyclopentolate.

Case Report

A 20-year-old woman presented with a paracentral

scotoma in her left eye. During the course of her assessment, the left pupil was dilated using one drop of Minims cyclopentolate hydrochloride 1% (Chauvin Pharmaceuticals). Thirty minutes later she developed generalised pruritus, rapidly followed by the appearance of a widespread urticarial rash involving the face, trunk and limbs. No other features of anaphylaxis developed. She was treated with intravenous hydrocortisone and a 3 day course of oral chlorpheniramine. The rash resolved within a few hours, but recurred in a milder form the following day. The paracentral scotoma was found to result from a long-standing parafoveal retinal lesion of uncertain aetiology.

This generalised urticarial rash appeared to have been precipitated by topical administration of cyclopentolate. Minims cyclopentolate hydrochloride 1% contains only the active drug (Chauvin Pharmaceuticals, personal communication) and the patient had not been exposed to any other potential allergens immediately preceding this reaction. There was no personal or family history of atopy or allergic reactions. Her only known previous exposure to an antimuscarinic agent was during childhood when she took hyoscine for motion sickness. The patient was not rechallenged with cyclopentolate because of the risk of a more severe reaction.

Discussion

It is well recognised that systemic adverse reactions may follow topical administration of an ophthalmic drug. Systemic absorption occurs readily through the conjunctiva and, after passage down the nasolacrimal duct, through the nasal mucosa and gastrointestinal tract. Topical cyclopentolate is detectable in the systemic circulation within 5 minutes and reaches a peak concentration at 15 minutes.³

Systemic administration of the antimuscarinic agents atropine^{4,5} and hyoscine^{6,7} have been reported to precipitate generalised urticaria, either in isolation or as part of an anaphylactic reaction. While contact dermatitis is not uncommon with topical administration of antimuscarinic agents, there are only two previous reports of generalised drug-induced eruptions. Guill *et al.*⁸ described erythema multiforme resulting from the chronic use

of hyoscine eye drops for uveitis. This patient also developed acute generalised urticaria when subsequently given tropicamide eye drops, exhibiting cross-reactivity between these drugs. Jones and Hodes⁹ described an urticarial rash precipitated by cyclopentolate eye drops in a child which only affected the face and limbs. It is not clear whether this rash represented a widespread contact urticaria or a true systemic allergic reaction.

Drug-induced urticaria may result from immunological or non-immunological mechanisms. Immune-mediated acute urticaria involves type I (IgE-mediated) hypersensitivity. Our patient had no previous exposure to cyclopentolate, though the possibility exists of cross-reactivity with a similar agent such as hyoscine. Non-immunological mechanisms may involve the release of vasoactive substances from mast cells or a direct pharmacological effect on cutaneous blood vessels. We can find no evidence that cyclopentolate possesses such properties.

Whatever the mechanism of this unusual reaction, it is important to be aware that topical administration of an ophthalmic drug has the potential to produce a systemic allergic reaction.

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Sir,

Trichofolliculoma of the Eyelid

Trichofolliculoma is an adnexal tumour of hair follicle origin, occurring most often on the face, scalp or neck. This tumour is excessively rare on the eyelid. We report here a case of trichofolliculoma on the upper eyelid. To our knowledge, there are only four other documented cases concerning the eyelid.¹⁻³

Case Report

A 43-year-old man presented to our dermatology clinic requesting removal of a tumour from his right upper eyelid. The tumour had been present for approximately 6 months without any change in appearance. Although the lesion was neither painful nor pruritic, the patient had felt discomfort during blinking. He had had no previous cutaneous or eye disease and was in good general health.

Physical examination revealed an elastic, soft, subcutaneous nodule measuring 0.8 cm on the centre of the right upper eyelid (Fig. 1). The nodule did not have a central pore-like opening. The lesion was excised.

Histopathological examination showed numerous well-differentiated hair follicles in the dermis (Fig. 2). Small groups of sebaceous gland cells were embedded in the walls of some follicles. Although

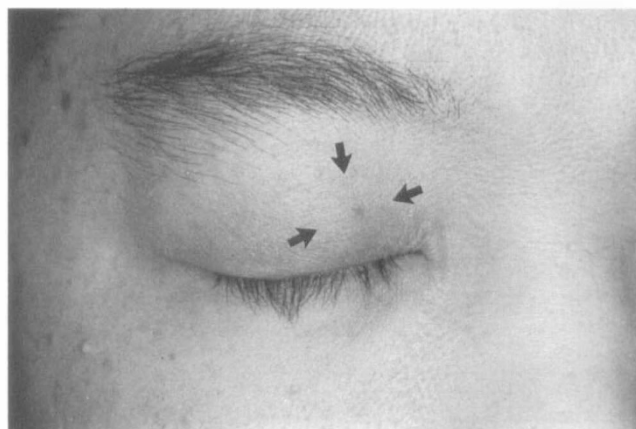


Fig. 1. Subcutaneous nodule on the right upper eyelid (arrows).