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A Koukkoulli¹ and R Rahman²

¹Ophthalmology Department, Hull Royal Infirmary, Hull, UK

²Ophthalmology Department, Calderdale Royal Hospital, Halifax, UK
E-mail: antigoni_koukkoulli@hotmail.com

Eye (2013) **27**, 675–676; doi:10.1038/eye.2013.26;
published online 1 March 2013

Sir,

Routine use of topical cyclopentolate as a predisposing factor to recurrent urinary tract infections in a susceptible adult

The article by Pooniya and Pandey titled ‘Systemic toxicity of topical cyclopentolate eyedrops in a child’¹ has highlighted one potentially serious side effect to a commonly used medication in ophthalmic practice. We agree with their comments and wish to extend the importance of exercising caution using such preparations in children, to include susceptible adults.

Case report

A 65-year-old Caucasian male born prematurely, with hypospadias and subsequent iatrogenic urethral strictures, attended our unit with a macula on retinal detachment. He suffers from recurrent urinary tract infections and has been self-catheterising biweekly for 15 years, but had been symptom free for 4 months before presentation.

He required five vitreoretinal procedures for visual rehabilitation over 7 months. Following the first four procedures, he developed symptoms of dysuria, urinary urgency, and frequency within 4–6 days postoperatively and was diagnosed with nitrite-positive urinary tract infections, subsequently confirmed on mid-stream

urinary culture and treated accordingly. He had topical cyclopentolate hydrochloride 1% (Intrapharm Laboratories Ltd., Maidenhead, UK) instilled preoperatively on all four occasions, and had continued postoperatively three times daily for 1 week. This was subsequently omitted from his routine preoperative treatment at his fifth procedure and he did not develop any urinary symptoms following this procedure.

On the basis of the temporal relation between the onset of symptoms after the first four procedures, and their absence after its omission, cyclopentolate was deemed causative. Our patient neither reported any other alterations in medications nor any change in urinary habits over the relevant time period. All five operative procedures were of similar duration.

Comment

Pooniya and Pandey highlighted local and systemic effects of the anti-cholinergic properties of cyclopentolate, and made reference to reported systemic adverse reactions.^{2,3} Urinary urgency, difficulty, and retention are clearly documented effects in the Summary of Product Characteristics (<http://www.mhra.gov.uk/home/groups/l-unit1/documents/websitesources/con2031217.pdf>). We propose that reduced bladder emptying and a subsequent increased susceptibility to infection were the underlying mechanisms in this susceptible patient.

It is important to remind colleagues that systemic absorption of topical medication is increased in the hyperaemic eye, and to avoid the use of such preparations in susceptible individuals, in whom side effects could be predicted.

Conflict of interest

The authors declare no conflict of interest.

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PJ Banerjee, MA Elgohary and DG Charteris

Vitreoretinal Service, Moorfields Eye Hospital, London, UK
E-mail: philip.banerjee@moorfields.nhs.uk

Eye (2013) **27**, 676; doi:10.1038/eye.2013.29; published online 1 March 2013