exclusion and typically occurs in middle-aged men. The pathogenesis remains controversial and is thought to be related to abnormalities in the sclera resulting in albumin accumulation.<sup>3</sup> To our knowledge unilateral pseudophakic acute angle closure secondary to IUES has not been reported. Pseudophakic angle closure is rare and can be caused by a variety of different mechanisms.<sup>4</sup> Careful assessment of peripheral iris configuration and symmetry of anterior chamber depth point to the diagnosis.

## **Conflict of interest**

The authors declare no conflict of interest.

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## Şir,

# Association between intraocular pressure and adherence: is there one?

The paper by Ajit *et al*<sup>1</sup> that was recently published in *Eye* described a new methodology of graphically presenting adherence data, using an electronic dosing monitor. The concept of using such a device to provide meaningful, graphical information is potentially favourable to the clinician in identifying patterns of adherence. However, the idea of collecting this information for all patients is probably unrealistic and unlikely to be cost-effective.

Lowering intraocular pressure (IOP) to reduce or halt the progression of visual field loss is the only currently available intervention for patients with glaucoma. Measuring IOP to assess efficacy has been standard practice ever since topical anti-glaucoma therapy was commenced. If a therapeutic regimen is adhered to, a reduction in IOP would be expected on repeat measurement *a priori*. Theoretically, therapeutic outcome would be both an objective and a practical measure of adherence. However, to date there is no consistent evidence of a relationship between adherence and IOP.<sup>2</sup> Failure to identify such a relationship could be explained by the lack of a quantified correlation, or could be attributed to the methodological quality of the studies examining such a correlation being poor. However, it is more likely that the complexities of assessing the level of IOP due to individual differences (types of glaucoma and diurnal variance), together with regression to the mean, lead to 'noisy data'.

The methodology used by Ajit *et al*<sup>1</sup> stated that 100 patients at their initial interview had their IOP recorded. However, no further discussion of the IOP data was done in the paper. Assuming that Ajit *et al* had the intention of collecting IOP data to study any relationship between IOP and adherence, it would be interesting if their findings could be published, particularly given the potential value to the glaucoma clinician of learning how IOP measures might correlate with adherence.

## **Conflict of interest**

The authors declare no conflict of interest.

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#### Sir, Response to Cate and Broadway

We thank you for providing us an opportunity to respond to the letter by Cate and Broadway<sup>1</sup> concerning our paper on patterns of adherence to hypotensive therapy that was recently published in *Eye*.<sup>2</sup> Our paper tried to address the issue of adherence in a way that was clinically more meaningful than simple percentage figures that are commonly reproduced in the literature. As part of this project we also collected pre- and post-treatment IOPs although we did not report on them within the *Eye* paper.

In their letter Cate and Broadway highlight that the routine use of an electronic dosing monitor is unrealistic (especially so now that Alcon has discontinued the supply of such aids) and asks whether a measure of IOP reduction can be used as a surrogate measure for adherence. We have now undertaken an analysis of pre- and post-treatment IOPs and can report that there is

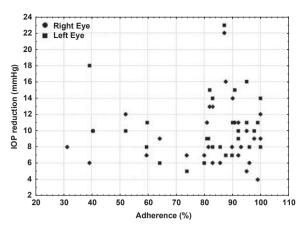


Figure 1 The relationship between adherence to hypotensive medication and IOP reduction measure at the time of a clinic appointment.

no relationship between IOP reduction and adherence (see Figure 1).

We do not find this surprising. The post-treatment IOP measured at a clinical appointment reflects whether or not the medication has been taken in the last few days rather than long-term adherence. Patients attending a hospital appointment are reminded to medicate and pre-clinic appointment adherence is likely to be very high. The short-term hyperaemia that often accompanies the onset of prostaglandin treatment is not an uncommon sign at follow-up appointments and suggests the recent re-introduction of medication.

Although patients tend to overestimate their adherence (for which data are supplied in our paper), simple non-judgemental questioning is likely to give a better estimate of adherence than an analysis of IOP data collected at follow-up appointments.

## **Conflict of interest**

The authors declare no conflict of interest.

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## Sir,

## A rare case of endogenous *Streptococcus group C* endophthalmitis associated with cellulitis

*Group C Streptococci* are part of the human flora<sup>1</sup> and rarely cause opportunistic infections. Here we report a case of endophthalmitis presumably caused by a cellulitis of the arm.

## Case report

A 59-year-old woman with non-insulin-dependent diabetes mellitus had been given an influenza vaccination into her left arm with chronic lymph oedema. Two days later she developed painful swelling of the arm. Another 24 h later she noticed decreased visual acuity of the right eye and pain. On presentation, the patient was febrile and a cellulitis involving the entire left arm with marked swelling was present. Systemic therapy with penicillin 2.4 g every 4 h and flucloxacillin 1 g every 6 h had already been started. The visual acuity was hand movements. The cornea showed mild exposure keratopathy due to a lagophthalmos of 2 mm secondary to a pre-existing facial nerve palsy. The pupil was mid-dilated and non-reactive. A hypopyon was present and visualization of the posterior segment was not possible owing to dense vitritis. Vitreous and anterior chamber taps were done and ceftazidime (2.25 mg/ 0.1 ml) and vancomycin (1 mg/0.1 ml) were injected intravitreally. Gram staining of the aqueous tap featured Gram-positive cocci growing in chains, which were later identified as group C Streptococci. The B-scan showed an attached retina and dense vitreous debris. Blood cultures (taken after commencement of systemic antibiotics) did not grow any microorganisms. One day later the visual acuity further deteriorated to perception of light. Owing to corneal stromal opacity it was not possible to safely perform a vitrectomy. Topical prednisolone hourly and 50 mg oral prednisone were added to the antibiotic treatment. Despite three more intravitreal injections of antibiotics over the following 10 days there was no improvement. Surgery involving keratoprosthesis, lensectomy, and vitrectomy was now offered to the patient, who declined this approach. The eye eventually became phthisical.

#### Comment

*Streptococcal* endophthalmitis is exogenous in the vast majority of cases and is caused by organisms from the viridians group (50%), followed by *Enterococcus* (27%), *Streptococcus pneumoniae* (12.5%), and beta-haemolytic *Streptococci* (10.5%).<sup>2</sup> Endogenous *Streptococcal* endophthalmitis is uncommon, and we could only find two case reports in which *group C Streptococcus* was the causative microorganism.<sup>3,4</sup> Our case highlights the importance of early recognition and the poor prognosis of endogenous *Streptococcal* endophthalmitis.

#### **Conflict of interest**

The authors declare no conflict of interest.