

**Figure 2** Fundus fluorescein angiogram of the right eye (upper left panel) and left eye (upper right panel) demonstrating early hyperfluorescence of macula lesion, and late staining of lesions in the right (lower left panel) and left (lower right panel) eyes.

aciduria and homocystinuria be remembered in the differential diagnosis of infantile maculopathy.

**Conflict of interest**

Dr Rosen is a member of the scientific advisor board of Clarity Medical Systems. The remaining authors declare no conflict of interest.

**References**

- 1 Ticho BH, Feist RM, Fishman GA. Nondetectable electroretinogram in combined methylmalonic aciduria and homocystinuria. *Ann Ophthalmol* 1992; **24**: 180–181.
- 2 Rosenblatt DS, Aspler AL, Shevell MI, Fenton WA, Seashore MR. Clinical heterogeneity and prognosis in combined methylmalonic aciduria and homocystinuria (cb1C). *J Inherit Metab Dis* 1997; **20**: 528–538.
- 3 Gerth C, Morel CF, Feigenbaum A, Levin AV. Ocular phenotype in patients with methylmalonic aciduria and homocystinuria, cobalamin C type. *J AAPOS* 2003; **12**: 591–596.
- 4 Tsina EK, Marsden DL, Hansen RM, Fulton AB. Maculopathy and retinal degeneration in Cobalamin C methylmalonic aciduria and homocystinuria. *Arch Ophthalmol* 2005; **123**: 1143–1146.
- 5 Ricci D, Pane M, Deodato F, Vasco G, Rando T, Caviglia S *et al.* Assessment of visual function in children with methylmalonic aciduria and homocystinuria. *Neuropediatrics* 2005; **36**: 181–185.
- 6 Hayes KC, Carey RE, Schmidt SY. Retinal degeneration associated with taurine deficiency in the cat. *Science* 1975; **188**(4191): 949–951.

JH Francis, L Rao and RB Rosen

Department of Ophthalmology, New York Eye and Ear Infirmary, New York, NY, USA  
E-mail: jfrancis@nyee.edu

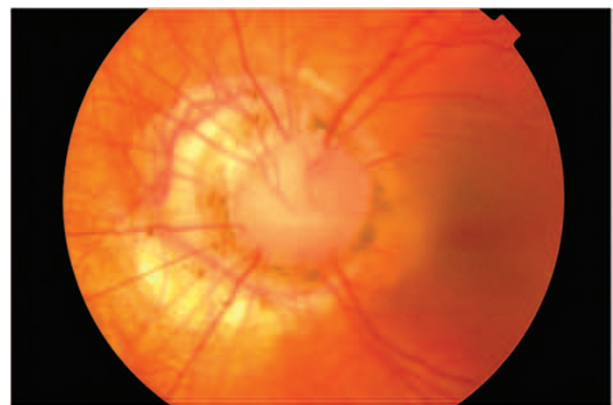
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Sir,  
**Morning glory with serous macular detachment responds to oral acetazolamide**

We report a case of morning glory optic disc with serous macular detachment in the left eye. The patient was treated with oral acetazolamide and followed up for a period of 3 years.

**Case report**

A 27-year-old lady presented in 2006 with onset of distortion in her left eye. Her visual acuity was 6/36 with a morning glory disc anomaly (Figure 1) and serous macular detachment (Figure 3). The central foveal thickness (CFT) was 928  $\mu\text{m}$  in the left eye at baseline. With 1 month of oral slow-release acetazolamide 250 mg (Diamox) twice a day, her visual acuity improved to 6/18 and CFT was reduced to 553  $\mu\text{m}$ . The dosage of acetazolamide was gradually tapered to 62.5 mg once a day over a period of 7 months. Her visual acuity improved to 6/9 in the left eye and CFT reduced



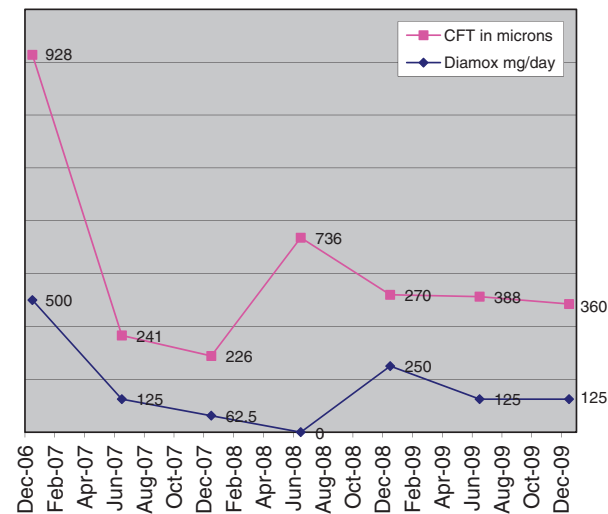
**Figure 1** Left eye morning glory optic disc anomaly.

to 241  $\mu\text{m}$  in the left eye at the end of 12 months (Figures 2 and 3; Table 1)

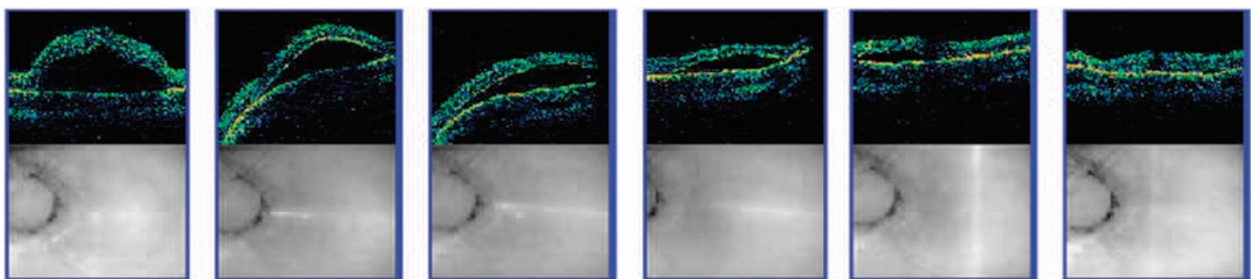
Rebound serous detachment and recurrence of symptoms appeared on stopping oral acetazolamide.<sup>1</sup> Symptoms of distortion and scotoma recurred. Visual acuity dropped to 6/60 in the left eye and CFT increased to 736  $\mu\text{m}$ . There was no response to topical carbonic anhydrase inhibitors. She was recommenced on oral acetazolamide 125 mg once a day and her visual acuity was stable at 6/24 and CFT was 360  $\mu\text{m}$  in the left eye when last reviewed (Figure 2; Table 1).

### Comment

To the best of our knowledge, treatment of serous retinal detachment in morning glory syndrome<sup>2</sup> with acetazolamide has not been previously reported. Improvement in visual acuity and significant reduction in CFT with a low dose of acetazolamide was observed in this case. Acetazolamide increases the pump activity of the retinal pigment epithelium and this is presumably the mechanism of action in this case.<sup>3,4</sup> Such cases are difficult to treat surgically.<sup>2,5</sup> Therefore, this report illustrates a novel alternative management approach.



**Figure 2** Response of central foveal thickness to oral acetazolamide.



**Figure 3** OCT (stratus 2) images in time order.

### Conflict of interest

The authors declare no conflict of interest.

### References

- 1 Apushkin MA, Fishman GA, Grover S, Janowicz MJ. Rebound of cystoid macular edema with continued use of acetazolamide in patients with retinitis pigmentosa. *Retina* 2007; **27**(8): 1112–1118.
- 2 Postel EA, Pulido JS, McNamara JA, Johnson MW. The etiology and treatment of macular detachment associated with optic nerve pits and related anomalies. *Trans Am Ophthalmol Soc* 1998; **96**: 73–88; discussion 88–93.
- 3 Wolfensberger TJ. The role of carbonic anhydrase inhibitors in the management of macular edema. *Doc Ophthalmol* 1999; **97**(3–4): 387–397.
- 4 Wolfensberger TJ, Chiang RK, Takeuchi A, Marmor MF. Inhibition of membrane-bound carbonic anhydrase enhances subretinal fluid absorption and retinal adhesiveness. *Graefes Arch Clin Exp Ophthalmol* 2000; **238**(1): 76–80.
- 5 Schatz H, McDonald HR. Treatment of sensory retinal detachment associated with optic nerve pit or coloboma. *Ophthalmology* 1988; **95**(2): 178–186.

P Prakash<sup>1</sup>, G De Salvo<sup>1</sup> and AJ Lotery<sup>1,2</sup>

<sup>1</sup>Southampton Eye Unit, Southampton General Hospital, Southampton, UK

<sup>2</sup>Clinical Neurosciences Division, School of Medicine, University of Southampton, Southampton, UK

E-mail: A.J.Lotery@soton.ac.uk

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**Table 1** Visual acuity and CFT response to oral acetazolamide

Months	Dec 2006	Jun 2007	Dec 2007	Jun 2008	Dec 2008	Jun 2009	Dec 2009
Diamox/day	500	125	62.5	Nil	250	125	125
CFT	928	241	226	736	270	388	360
V/A	0.8	0.5	0.2	1.05	0.6	0.6	0.6