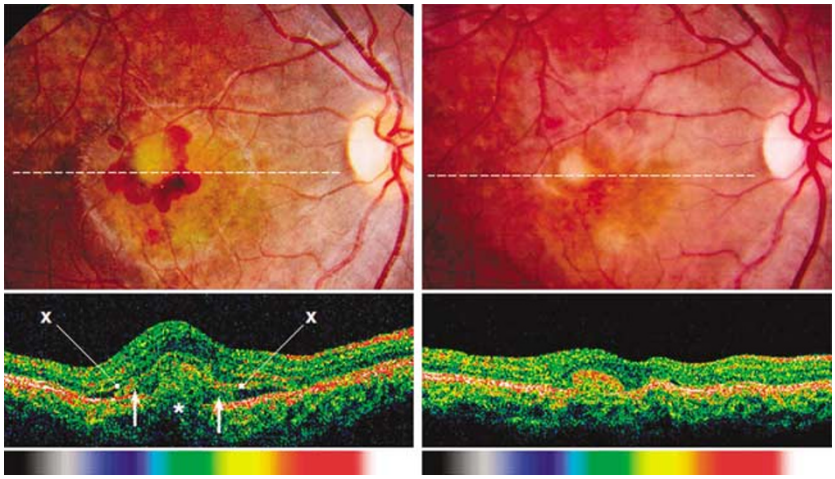

Figure 2 Colour fundus photography (top) and optical coherence tomography (OCT) evaluation (bottom) at baseline (left) and at 12 months (right) of the right eye of a 10-year-old girl with rubella retinopathy complicated with choroidal neovascularization. (Left) Diffuse mottling of the retinal pigment epithelium throughout the macula, and a serohaemorrhagic elevation of the macular region was seen in the right eye. On OCT, retinal layers were slightly thickened due to intraretinal fluid and elevated (outer boundary of the neurosensory retina marked as x) because of subretinal blood (arrows) and fluid as well as the presence of an extrafoveal protruding hyper-reflective mass at the level of the retinal pigment epithelium/choriocapillaris complex (asterisk). Right. Spontaneous resolution of the serohaemorrhagic maculopathy was observed 12 months after presentation and OCT revealed contraction of the hyper-reflective mass and favourable macular remodelling.

suggesting the presence of an extrafoveal ingrowth site of the neovascular lesion,[5] may provide clues when considering observation rather than treatment for CNV in a particular clinical setting.

References

1 Yoser SL, Forster DJ, Rao NA. Systemic viral infections and their retinal and choroidal manifestations. *Surv Ophthalmol* 1993; **37**: 313–352.
2 Frank KE, Purnell EW. Subretinal neovascularization following rubella retinopathy. *Am J Ophthalmol* 1978; **86**: 462–466.
3 Deutman AF, Grizzard S. Rubella retinopathy and subretinal neovascularization. *Am J Ophthalmol* 1978; **85**: 82–87.
4 Gass JDM. Diseases causing choroidal exudative and hemorrhagic localized detachment of the retina and retinal pigment epithelium. In: Gass JDM (ed). *Stereoscopic Atlas of Macular Diseases: Diagnosis and Treatment*. Missouri: Mosby, 1997, pp 144–145.
5 Melberg NS, Thomas MA, Burgess DB. The surgical removal of subfoveal choroidal neovascularization. Ingrowth site as a predictor of visual outcome. *Retina* 1996; **16**: 190–195.

CE Veloso[1], RA Costa[2], JL Oréfice[1] and F Oréfice[1]

[1]Department of Ophthalmology, Federal University of Minas Gerais, Belo Horizonte, MG, Brazil
[2]Retina Diagnostic and Treatment Division, Hospital de Olhos de Araraquara, Araraquara, SP, Brazil
E-mail: cerveloso@hotmail.com

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Sir,

Vitreofoveal traction associated with the use of pilocarpine to reverse mydriasis

We present a case of vitreofoveal traction induced by one drop of pilocarpine given for reversal of mydriasis.

Case report

A 64-year-old white female was dilated for a routine eye examination. No retinal abnormalities were detected and her vision was 20/20. She requested that her dilation be reversed and she was given one drop of 2% pilocarpine in each eye. Shortly after she was given the drops, she noted the onset of a small scotoma at fixation in her left eye. She was referred for an urgent retinal evaluation and has found to have a vision of 20/25 and a small yellow-white spot at her fovea (Figure 1 lower left). Optical coherence tomography (OCT) demonstrated irregularity in the foveal anatomy (Figure 1 upper left). After 4 months, her vision was unchanged and she had developed a vitreous detachment. The foveal spot had disappeared (Figure 1, lower right). Repeated OCT testing demonstrated vitreofoveal separation with resolution of the defect seen on the original OCT, although there was a suggestion of a very subtle defect in the continuity of the outer segment layer (arrow, Figure 1, upper right).

Comment

Pilocarpine can be associated with retinal tears and detachments. [1] The mechanism for this is thought to be related to drug-induced forward displacement of the lens which causes anterior movement of the vitreous and results in traction to areas of the retina that have significant vitreous adherence. There has also been one case of chronic pilocarpine causing a

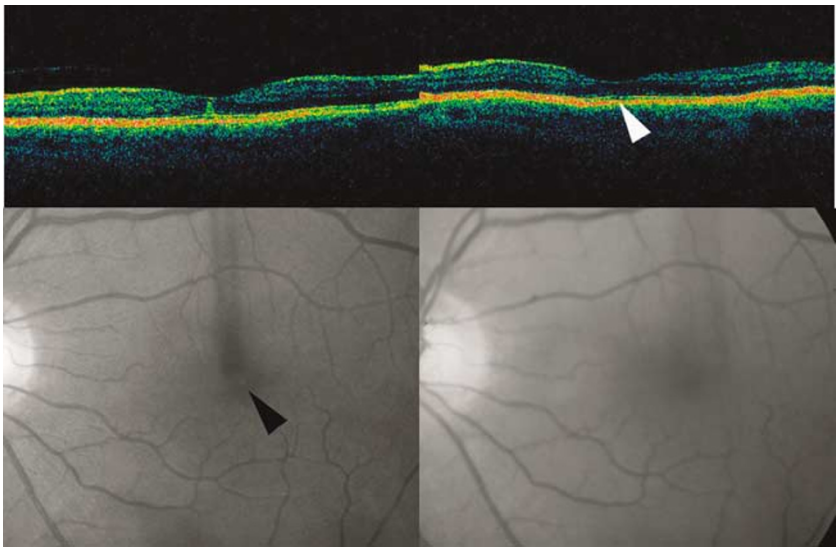

Figure 1 Optical coherence tomography (OCT) showing the area of photoreceptor disruption (top left). Fundus photograph showing small light dot at the fovea (bottom left—black arrowhead). OCT showing resolution of significant structural changes and possible discontinuity at the level of the outer segments following complete vitreous detachment (top left—white arrowhead). Fundus photograph after vitreofoveal separation showing resolution of the dot (bottom left).

full-thickness macular hole and a second case where a stage 1A hole resolved after the discontinuation of the drug.[2,3]

This case is the first that we are aware of suggesting an association between the development of foveal changes and a single dose of pilocarpine. Although pilocarpine is rarely used to treat glaucoma, it is still used for diagnostic testing of a dilated pupil, therapeutic miosis, and reversal of pupillary dilation. The fact that the drug is used less commonly than in the past means that there is also less familiarity with the potential retinal side effects and it is important for clinicians to remember that there is a possibility of both macular and peripheral retinal traction with even one time use of this medication.

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References

1 Fraunfelder FT, Fraunfelder FW In: *Drug-Induced Ocular Side Effects*, 5 ed Woburn: Butterworth–Heinemann, 2001, pp 587–593.
2 Benedict WL, Shami M. Impending macular hole associated with topical pilocarpine. *Am J Ophthalmol* 1992; **114**: 765–766.
3 Garlikov RS, Chenoweth RG. Macular hole following topical pilocarpine. *Ann Ophthalmol* 1975; **7**: 1313–1316.

JD Walker[1] and MM Alvarez[2]

[1]Allen County Retinal Surgeons, Indiana University School of Medicine, Fort Wayne, IN, USA
[2]Fort Wayne, IN, USA
E-mail: jonwalker22@gmail.com

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Sir,

MR imaging diagnosis of familial Duane's retraction syndrome by documentation of the absence of the abducens nerves

Duane's retraction syndrome (DRS) is a congenital abduction deficit of the eyeball accompanied by retraction of the globe on attempted adduction, and by upshoots or downshoots of the affected eye on adduction.[1] However, these characteristic diagnostic signs of DRS may not be manifested in some patients, particularly in children[2] and thus magnetic resonance (MR) imaging has been utilized for the diagnosis of DRS.[3] Absence of the abducens nerves documented by MR imaging in familial DRS has not been reported.

Case report

A 30-year-old man (Case 1) was referred for the evaluation of horizontal limitation of eye movement since birth. He had esophoria of 12 prism dioptres in primary position. Abduction was completely absent in both eyes. He showed mild retraction of the globe, but did not show typical upshoots or downshoots of either eye on attempted adduction (Figure 1a). His corrected visual acuity was 20/20 in both eyes. He had a myopic astigmatism of −0.75 Dsph (Diopter in sphere) −1.00 Dcyl × 10 A in the right eye and −1.00 Dsph −1.00 Dcyl × 170 A in the left eye. He recognized 3 out of