Spontaneous improvement in myopic foveoschisis

We present the first case of bilateral myopic foveoschisis without subretinal fluid with spontaneous improvement in both eyes.

Case report

A 51-year-old Caucasian woman with -15 D myopia in both eyes and a history of choroidal neovascularization treated with ranibizumab OD prior to presentation to the authors presented with gradual decreased vision in both eyes that developed over several years. She had a history of radioactive iodine use, hypothyroidism, and took levothyroxine.

Visual acuity was 20/125 OD and 20/40 OS. Examination demonstrated lacquer cracks of both eyes without hemorrhage or an optic nerve pit. OCT showed myopic foveoschisis of both eyes (Figure 1). Three years later, she underwent uncomplicated phacoemulsification and lens insertion OS. Eight months later, she reported gradual improvement in vision in both eyes, with improvement in visual acuity to 20/80 OD and 20/20 OS, no posterior vitreous detachment, but improvement in the myopic foveoschisis OU (Figure 2).

Comment

Myopic foveoschisis, first described in 1958,1 was termed foveal retinoschisis by Takano and Kishi,² and has a prevalence ranging from 8% to 34% in patients with high myopia.³ One case of myopic foveoschisis with vitreomacular traction showed resolution of detachment and schisis following spontaneous release of traction.4 Another case demonstrated presumed release of vitreomacular traction leading to resolution of retinoschisis but formation of a macular hole and retinal detachment.⁵ More recently a case noted improvement in submacular detachment over 2 weeks with worsening schisis.⁶ A series of 207 eyes with myopic foveoschisis found 8 cases of improvement with release of retinal traction.⁷ To our knowledge, there are no reported cases of spontaneous improvement in retinoschisis patients without subretinal fluid or release of retinal traction. This patient lacked potential confounders, including carbonic anhydrase inhibitor use, posterior vitreous detachment, optic nerve pit, or niacin use. The patient did undergo cataract extraction, but this was only in one eye, whereas both eyes showed improvement.

Current management sometimes involves episcleral macular buckling, pars plana vitrectomy, fluid-gas exchange, or internal limiting membrane peeling. This case reinforces consideration of observation to evaluate for improvement rather than immediate surgical intervention. Identifying causes of spontaneous

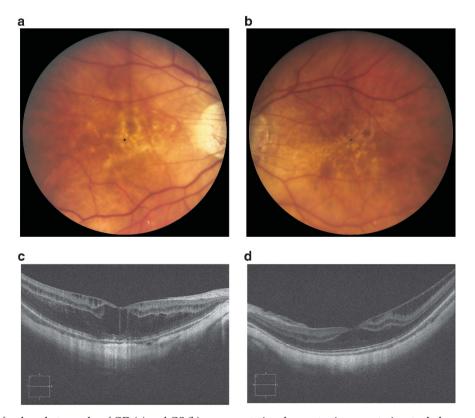


Figure 1 Color fundus photographs of OD (a) and OS (b) on presentation demonstrating a posterior staphyloma with peripapillary atrophy, pigmentary abnormalities, retinoschisis, and lacquer cracks in both eyes without intraretinal or subretinal hemorrhages, fluid, or lipid. Spectral-domain optical coherence tomography (Zeiss Cirrus, Carl Zeiss Meditec, Oberkochen, Germany) OD (c) and OS (d) on presentation demonstrating myopic foveoschisis with column-like hyperreflectant lines through a hyporeflective space without subretinal fluid.



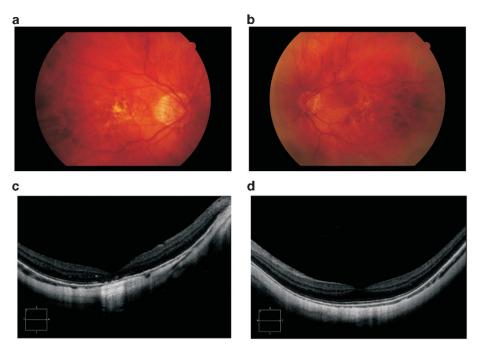


Figure 2 Color fundus photographs of OD (a) and OS (b) 3 years later demonstrating a posterior staphyloma with peripapillary atrophy and pigmentary abnormalities. SD-OCT OD (c) and OS (d) demonstrating improvement in myopic foveoschisis without subretinal fluid.

reversibility could suggest potential therapeutic strategies.

Conflict of interest

The authors declare no conflict of interest.

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Ethical statement

All research was performed in accordance with the Declaration of Helsinki and all local, regional, and national law.

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YM Paulus and NM Bressler

Retina Division, Wilmer Eye Institute, Johns Hopkins University, Baltimore, MD, USA E-mail: nmboffice@jhmi.edu
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