Fusarium keratitis is rarely seen in the United States. In February 2006, a cluster of Fusarium cases in contact lens wearers was reported by the Singapore Health Ministry, and a strong association with ReNu with MoistureLoc use was noted. This report also led to the withdrawal of ReNu with MoistureLoc contact lens solution from the Singapore and Hong Kong markets.

In a May 5, 2006, press release, the CDC reported an update on its ongoing investigation. Of the 58 confirmed cases of Fusarium keratitis for which data collection had been completed, 56 reported using contact lenses. Of these contact lens–associated cases, 32 reported using Bausch & Lomb ReNu product, 3 reported using a contact lens solution manufactured by Advanced Medical Optics, and 3 reported using a contact lens solution from Alcon Laboratories (Fort Worth, Tex) (some patients in this report used more than 1 contact lens solution). The CDC noted that the market share of ReNu MultiPlus was 5 times higher than that of ReNu with MoistureLoc, yet the majority of the analyzed Fusarium cases to date involved the use of ReNu with MoistureLoc.

Until this report, it has not been established whether the recent case reports represent a true increase in the incidence of Fusarium keratitis. Fusarium is not an uncommon cause of keratitis in tropical and subtropical climates, including those of southeast Asia and south Florida. Up to 35% of microbial keratitis cases reported from south Florida are attributable to fungal pathogens, compared with 1% from New York.3,5 There are relatively few reports of Fusarium keratitis in soft contact lens wearers, and the exact incidence of Fusarium keratitis in soft contact lens wearers is unknown. Our report strongly suggests that the current cluster represents an unusual spike over the background incidence of Fusarium keratitis seen during the prior 30 years at our institution. We believe that referral bias and reporting bias are unlikely to account for the increased number of cases seen, since all 4 cases came from established referral sources prior to the public announcement of Fusarium keratitis cases by the CDC.

We, other laboratories, and the CDC are currently investigating the fungicidal properties of the contact lens solutions used by these patients and the genotype characteristics of the Fusarium isolates of these cases in an effort to determine the underlying cause of the current apparent outbreak and whether the Fusarium species from these cases originate from a common strain.

Our case series also emphasizes the importance of corneal cultures in assisting with early diagnosis of microbial keratitis and the poor outcome of Fusarium keratitis when prolonged corticosteroid treatment is administered and appropriate antifungal treatment is delayed.

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Bilateral Macular Detachments in X-linked Retinoschisis

X-linked retinoschisis (XLR) is frequently associated with moderate vision loss. Severe vision loss usually is caused by peripheral retinoschisis with vitreous hemorrhage or a rhegmatogenous retinal detachment. We report 2 eyes from 1 patient with isolated posterior pole retinal detachments who had improved visual acuity and resolution of the
detachments following vitrectomy and gas tamponade.

Report of a Case. A 23-year-old man with a history of XLR was initially seen with a 2-day history of severe vision loss in his right eye. He stated that his baseline visual acuity was 20/60 OU because of retinoschisis but had suddenly deteriorated. His medical history was unremarkable. Family history revealed that his sister’s son had been diagnosed with XLR.

On examination, visual acuity was counting fingers at 1 ft OD and 20/60 OS. Intraocular pressure and findings from pupillary examination and anterior segment examination were normal in both eyes. Dilated funduscopic examination of the right eye revealed a shallow retinal detachment isolated to the posterior pole. The inner retina and retinal vasculature appeared relatively normal; however, the outer retina exhibited prominent corrugations (Figure 1A). Careful biomicroscopic examination did not reveal any inner or outer wall holes in the area of detached retina. No optic pit was noted. No evidence of pigment in the vitreous cavity, peripheral retinal breaks, or lattice degeneration was found. Fluorescein angiography showed no leakage. Optical coherence tomography of the right eye demonstrated elevation of the neurosensory retina. There were large cystoid spaces within the outer plexiform layer and prominent corrugations within the outer retina (Figure 1B). Funduscopic examination of the left eye showed foveal schisis cavities characteristic of XLR. Optical coherence tomography of the left eye revealed cystoid spaces within the outer plexiform layer (Figure 2).

The patient underwent a standard 3-port pars plana vitrectomy in the right eye. A complete posterior
vitreous detachment was created intraoperatively. No attempt was made to drain the subretinal fluid, and no laser photocoagulation was performed. No retinal breaks were identified. The vitreous cavity was filled with 20% sulfur hexafluoride gas and the patient maintained face-down positioning for 1 week.

One week postoperatively, the retinal detachment had resolved, and the visual acuity improved to 20/200 OD. At the 1 month visit, the visual acuity remained 20/200 OD, and the macular contour had improved (Figure 3A). Optical coherence tomography showed foveal cysts, but the subretinal fluid was gone (Figure 3B).

Shortly thereafter, the patient complained of sudden vision loss in the left eye. The visual acuity was counting fingers at 2 ft OS. The clinical appearance was very similar to the initial examination of the right eye, showing a shallow posterior pole retinal detachment with outer retinal corrugations and inner retinal cysts, with no visible retinal breaks. The patient underwent a pars plana vitrectomy, mechanical separation of the hyaloid, and gas tamponade with 20% sulfur hexafluoride gas in this eye. One week later, the visual acuity had improved to 20/200, and the subretinal fluid had resorbed, but the foveal cysts remained.

At the 3-month postoperative visit for the left eye (4 months after surgery in the right eye), the visual acuity had improved to 20/100 OD and 20/60 OS. The retina remained flat and attached in both eyes, with optical coherence tomography showing an overall decrease in the amount of detachment and a decrease in the foveal cysts in the left eye.

Comment. Patients with XLR have a defect in the XLRS1 gene, which encodes retinoschisin, a protein that is believed to be essential to cellular adhesion. The abnormal retinoschisin may cause dysfunction of the Muller cells, which results in a schisis cavity. Most patients with XLR have mild to moderate vision loss due to foveal schisis, and this can gradually worsen during adulthood. Cases of severe vision loss are usually due to vitreous hemorrhage or a rhegmatogenous retinal detachment. Up to 22% of patients develop a rhegmatogenous retinal detachment attributable to peripheral retinal breaks.

There are several reports detailing the surgical results of scleral buckling and vitrectomy for the repair of the rhegmatogenous retinal detachments in these patients. We are unaware of any previous reports in the literature describing nonrhegmatogenous macular retinal detachment as a cause of vision loss in XLR and could find no reference to it on a MEDLINE search.

We have described a patient with XLR who was initially seen with bilateral, sequential, macular retinal detachments, which were repaired via vitrectomy with short-acting gas tamponade. While pronounced corrugations suggest a rhegmatogenous origin, both clinical and intraoperative examinations failed to demonstrate retinal breaks, pigment, or hemorrhage in either eye. These could be exudative macular detachments. However, no other causes suggestive of an exudative process were identified, no leakage was present on the angiogram, and corrugations would not be expected. We believe that this case represents a variant of vitreomacular traction, which, when combined with the defective cellular adhesion of juvenile XLR, resulted in such a striking appearance. It is possible that the traction caused an enormous schisis cavity and relief of the traction improved the retinal contour. Gas tamponade was used to aid in the closure of a possible occult inner wall hole within the schisis cavity, but this may not have been necessary. Our experience suggests that these detachments may respond well to vitrectomy surgery with removal of the posterior hyaloid in combination with short-term gas tamponade.

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Infliximab-Associated Third Nerve Palsy

A third nerve palsy (TNP) may show gadolinium enhancement of the cisternal segment of the oculomotor nerve on magnetic resonance imaging. Causes include inflammation, infection, neoplasm, ophthalmoplegic migraine, and demyelination. Infliximab, a tumor necrosis factor (TNF) α inhibitor, may cause demyelination or increase relapses in patients with multiple sclerosis. We report a patient who developed a TNP associated with infliximab use.

Report of a Case. A 47-year-old man with rheumatoid arthritis received monthly infusions of 300 mg of infliximab since December 2002. In February 2004, he was initially seen with painless ptosis of his right upper eyelid along with double vision in left and upgaze.

On examination, he had minimal ptosis and limitation of elevation and adduction of the right eye. Pupils were equal in size and reactivity. Visual acuity, dilated fundus examination, neurologic examination, and review of systems were unremarkable. Other medications included 400 mg of hydroxychloroquine daily and 10 mg of methotrexate weekly. He took latanprost and carteolol hydrochloride for glaucoma.

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