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Sir,

Photorefractive keratectomy in iris and choroidal coloboma using Pulzar Z1 solid-state technology from Customvis, Australia

Reduced corneal diameter and peripheral corneal changes similar to aniridia[1–3] can occur in iris coloboma. We present a case of iris coloboma in which photorefractive keratectomy (PRK) was performed.

Case report

A 22-year-old female patient presented with refraction of $-9.25/-0.50 \times 70$ (6/6) in the right eye and $-3.00/-1.00 \times 170$ (6/6) in the left eye. The right eye was within the normal limits and the left eye revealed typical inferonasal iris coloboma. Retinal evaluation revealed an inferonasal choroidal coloboma. An additional small island of choroidal coloboma was present.

The average keratometry values showed 44.97 D in the right eye and 43.80 D in the left eye using iTRACE (Tracey Technologies, TX, USA). The corneal thickness was 498 μm in the right eye and 548 μm in the left eye. Corneal diameter in the right eye was 11.0×11.5 mm and in the left eye was 10.0×10.5 mm.

In the right eye, LASIK was performed with a flap of 8.5 mm and an optic zone of 5.5 mm. The residual bed after ablation was 270 μm in the left eye. PRK was performed using the Pulzar Z1 small 0.6 mm Quasi Gaussian beam, with fast closed-loop eye tracking and advanced solid-state scanning technology. The epithelium was debrided mechanically and was found to be very loose. Ablation was performed with a 0.6-mm spot size laser centred on the visual axis. An optic zone of 6.5 mm and a transitional zone of 8 mm were utilized. The ablation was centred to visual axis. Mitomycin-C 0.02% on a sponge was applied for 1 min. A bandage contact lens was applied.

Routine post-operative care was given. The patient attained an unaided visual acuity of 6/6 in both the eyes at the end of 2 months. Trace haze was seen in her left eye.

Discussion

We present this case to highlight that PRK would be a useful option in patients with iris and choroidal coloboma. In the left eye of this patient, PRK was decided because of the risk of LASIK flap-related complications in view of the corneal diameter being smaller and the overall abnormal contour of the anterior segment. There may be risk of stem cell damage with the suction ring aggravating corneal vascularization. Loose epithelium, as it happened in this case, may predispose to decreased flap adherence and increased risk of diffuse lamellar keratitis.

The problems that we encountered in this patient were loose corneal epithelium and difficulty in identifying the centre of the pupil. Ablation was centred on the visual axis with a large optic zone.

The visual results of this patient were very good, 6/6 at the end of 2 months. Trace haze was seen, though it is our experience to not see a haze in low-to-moderate myopia using spot laser and mitomycin C.

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Sir,

Jarisch–Herxheimer reaction: paradoxical worsening of tuberculosis chorioretinitis following initiation of antituberculous therapy

Jarisch–Herxheimer reaction (JHR) describes paradoxical worsening following chemotherapy. Here, We report a case of JHR comprising retinal vasculitis and vitritis following initiation of antituberculous therapy (ATT).

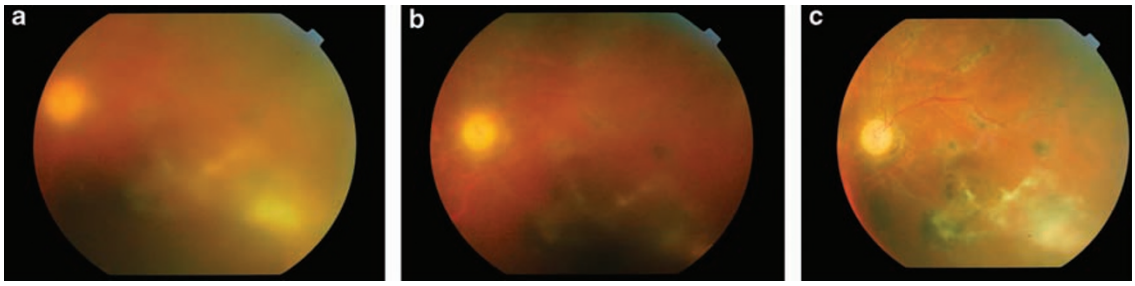

Figure 1 (a; Left). Four days after initiation of ATT: intense vitrits with the area of chorioretinitis adjacent to an area of previous scarring. (b; middle). One week after the addition of systemic steroids: resolution of vitritis and scarring of area of chorioretinitis. (c; right). One month after initial presentation: complete resolution of vitritis and scarring up of area of chorioretinitis.

Case report

A 77-year-old woman with biopsy-proven tuberculous cervical lymphadenitis was started on rifampicin, isoniazid, pyrazinamide, and ethambutol. Pretreatment screening showed normal vision in her left eye. The right eye had been phthisical for 10 years, with no light perception. Reduced vision (6/120) developed in the left eye 4 days after starting ATT, with 2+ anterior chamber cells, 3+ vitreous cells, and multiple areas of retinitis with sheathed vessels adjacent to pigmented chorioretinal scars. (Figure 1a).

Mycobacterium tuberculosis (TB) DNA was identified using PCR from a vitreous tap. DNA from CMV, HSV, VZV, or toxoplasma gondii was not detected. Syphilis serology was non-reactive.

The diagnosis of TB chorioretinitis, with paradoxical worsening following ATT (ie, JHR) was made. Addition of oral prednisolone 25 mg once daily resulted in prompt resolution of vitritis and scarring of the area of chorioretinits within 1 week (Figure 1b). Oral prednisolone was tapered over the next month, with further resolution of vitritis and chorioretinits (Figure 1c) and the final best-corrected visual acuity was 6/45.

Comment

Systemic manifestation of JRH (fever, headache, and sweating) is most commonly associated with treatment of syphilis,[1] but has also been described in leptospiral infection[2] and Lyme disease.[3] Ocular manifestations are less common, but has been described as retinal vasculitis in Whipple's disease.[4] Proposed mechanisms include endotoxin release from the death of organisms, delayed hypersensitivity, and decreased suppressor mechanisms.

In systemic TB, JHR has been described as worsening of intracranial tuberculoma, meningeal disease, tuberculous menigeal radiculitis, pleural effusion, and abdominal TB.[5]

We believe that the rapid worsening of vitritis and chorioretinitis following initiation of ATT in our patient and the prompt improvement with coriticosteroid represent the JHR. Although only anecdotal report of ocular JHR in tuberculous serpiginous choroiditis exists,[5] this is the first reported case of JHR manifesting as ocular symptoms following initiation of ATT. This case highlights the importance of the awareness of JHR and the importance of appropriate and timely use of systemic steroids.

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Sir,

Orbital cellulitis and cavernous sinus thrombosis secondary to necrobacillosis

Necrobacillosis, the septicaemic disease caused by *Fusobacterium necrophorum*, is a rare and potentially fatal disease. The original description of Lemierre[1] included fever, rigors, arthritis, and pulmonary infarct occurring after an episode of sore throat. The mortality and morbidity is commonly due to thrombotic complications and septicaemia. We report a case of *F. necrophorum* septicaemia causing orbital cellulitis and cavernous sinus thrombosis in a healthy young female patient.