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Financial or material support: None.
Proprietary interest: None.

Eye (2010) **24,** 941–943; doi:10.1038/eye.2009.183; published online 10 July 2009

Sir,

Spectral-domain optical coherence tomography findings in a case of frosted retinal branch angiitis

Frosted retinal branch angiitis is a rare manifestation of retinal perivasculitis.[1] Cases have also been identified in subjects suffering from HIV, early cytomegalovirus (CMV) retinitis, and systemic herpes simplex virus (HSV) infection.[2,3]

Case report

A 37-year-old man with HIV and CMV +, after 9 weeks of treatment with highly active antiretroviral therapy (HAART) for acute retinal necrosis in OS, was referred for a mild visual acuity (VA) loss in OD (from 20/20 to 20/25). At fundus examination, he presented a perivascular creamy sheathing of retinal veins in the whole vascular net (Figure 1a1−a2). Frosted branch angiitis with CMV retinitis was diagnosed, and therapy with gangiclovir and foscarnet was recommended. The patient underwent spectral-domain optical coherence tomography (SD-OCT) using Spectralis HRA + OCT (Heidelberg Engineering, Heidelberg, Germany). The images showed a thickening of vessel walls, swelled by hyperreflective material (Figure 1a3, white arrows), and little hyperreflective spots (Figure 1a3, white arrowhead) more localized at the boundaries of plexiform layers, even if also notable in the nuclear layers and more dense in perivascular areas.

Twelve weeks later, VA in the OS improved to 20/60 (Figure 1b1−b2). An SD-OCT examination showed a normal vessel wall thickness corresponding to the restored vessels, and also where the creamy sheathing was still visible, the walls appeared thinned compared with the previous examination (Figure 1b3, white arrows). The diffuse hyperreflective retinal spots were reduced, but were still present, especially at the boundaries of the outer plexiform layer (Figure 1b3, white arrowheads).

Comment

In this case of frosted branch angiitis, SD-OCT scans showed a hyperreflectivity at the level of the vessel walls, corresponding with the perivascular material, possibly because of immune-complex deposition.[1,4] The presence of diffuse small hyperreflective spots could be explained by the Muller cells' involvement and suffering outside the perivascular area.[5] SD-OCT examination seems to be a valid imaging technique to follow the evolution of frosted branch angiitis, especially monitoring the ultrastructural changes in this rare condition.

Conflict of interest

The authors declare no conflict of interest.

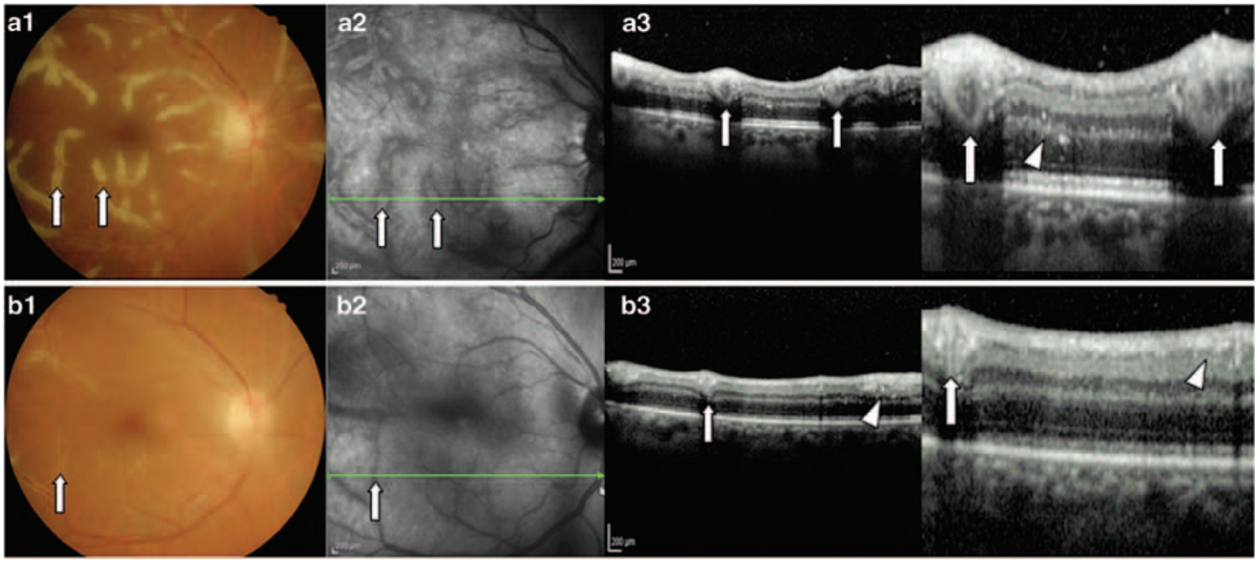

Figure 1 Colour photographies (a1–b1) and infrared (a2–b2) with simultaneous SD-OCT, normal and magnified (a3–b3) imaging. a1−3: first examination, b1−3: 12-weeks examination.

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Eye (2010) **24,** 943–944; doi:10.1038/eye.2009.228; published online 4 September 2009

Sir,

Propionibacterium acnes endogenous endophthalmitis presenting with bilateral scleritis and uveitis

Propionibacterium acnes is known to cause delayed-onset postoperative endophthalmitis.[1] Endogenous endophthalmitis, however, is very rare.[2,3]

Case report

A 55-year-old healthy Chinese lady with no past medical or surgical history had a 1-week history of bilateral eye redness, blurring of vision, and floaters. On examination, she was septic, with fever of 39.0°C and seemed unwell. Her best-corrected visual acuities (BCVA) were 6/15 OD, 6/24 OS. She had diffuse non-necrotising anterior scleritis, anterior chamber cells and flare 2+, posterior synechiae of 270–360 degrees, and small dendritiform keratic precipitates OU, but no iris nodules were seen (Figure 1a–d). There was mild vitritis OU (Figure 2a and b). Intra-ocular pressures were normal. Screening blood tests revealed a raised total white cell count (21.27×10^9/l) and erythrocyte sedimentation rate (103 mm/h). Other investigations for infective agents, including blood cultures, were non-contributory; whereas, an echocardiogram to rule out infective endocarditis should have been done. An aqueous sample taken at the slit-lamp with aseptic precautions was sent for Gram-staining, culture, and PCR analysis. The initial culture results after 1 week and PCR analysis were negative. She was treated empirically with intravenous (IV) ceftriaxone (1.5 g BD) for a week and oral doxycycline (100 mg BD) with oral prednisolone (40 mg/day). Topical prednisolone acetate (1% hourly) and oral ibuprofen (400 mg TDS) were added 5 days later. All initial culture results were negative. At 15 days after presentation, the aqueous sample cultured *P. acnes*. As her ocular inflammation worsened, she was treated with IV crystalline penicillin (3 g every 4 h) and topical moxifloxacin on a 3-hour routine to which she responded clinically within 2 days. Her BCVA was 6/9 OU at 18 months with no recurrence of ocular inflammation

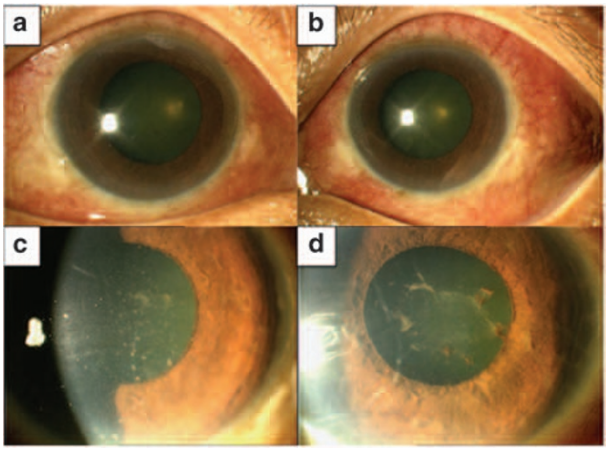

Figure 1 Patient's right (**a**) and left (**b**) eyes with non-necrotising, diffuse anterior scleritis. Dendritic keratic precipitates were seen in both eyes (**c** = right, **d** = left), seen more clearly in the right, with anterior chamber cells 2+, flare 2+, and 360 degrees of posterior synechiae.

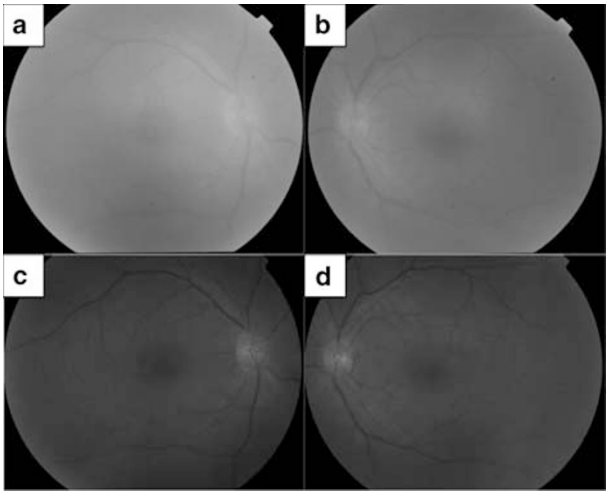

Figure 2 Posterior segment examination revealed mild vitritis in the right (**a**) and left (**b**) eyes. There was no evidence of chorioretinitis, vasculitis, macula oedema, or disc swelling. Posterior segment photos 18 months post-presentation with no evidence of inflammation in both eyes (**c** = right eye; **d** = left eye).