

**Sir,
Dynamics of intraretinal fluid accumulation evidenced
by SD-OCT in a case of cat scratch neuroretinitis**

Neuroretinitis is a clinical diagnosis based on fundus appearance (optic disc swelling and macular star). Aetiologies include infectious and inflammatory disorders. The macular star results from precipitation of lipidic exudates within the retinal Henlé fibre layer, appearing progressively upon resorption of macular fluid.^{1,2} Thus, diagnosing neuroretinitis at its early stage can be difficult owing to the lack of macular star.

Case report

A healthy 23-year-old man complained of acute painless vision loss and photopsias in the left eye (LE). Two days later (Day 2) LE examination revealed normal (20/20) visual acuity (VA), normal colour vision (13/13 on Ishihara pseudoisochromatic plates), and a blind spot enlargement (Figure 1a(i)). Vitreous cells, parapapillary haemorrhages, and optic disc swelling were present (Figure 1a(ii)). OCT revealed intraretinal fluid in the parapapillary outer plexiform layer (Figure 1a(iii)). Right eye was normal. Neuroretinitis was suspected and blood studies were initiated.

On Day 4, VA dropped to 20/100 LE with diffuse macular oedema (Figure 1b(ii)). OCT showed massive

outer plexiform layer oedema spreading from the optic nerve to the macula with a serous retinal detachment involving the fovea (Figure 1b(iii)). Oral prednisone 1 mg/kg/day was initiated.

On Day 10, VA was 20/200 LE with a central scotoma (Figure 1c(i)). A macular star was now visible (Figure 1c(ii)), with a markedly reduced macular oedema (Figure 1c(iii)). Serologies were strongly positive for *Bartonella Henselae* (IgG levels 1024; normal range < 64).

On Day 13, VA improved to 20/50 (Figure 1d(i)) with persistent macular star (Figure 1d(ii)) but absence of intraretinal fluid (Figure 1d(iii)).

Two months later, VA recovered to 20/20 LE. Nine months later, VA was 20/20 with a permanent inferior arcuate visual field defect (Figure 1e(i)) and normal macula (Figure 1e(ii,iii)).

Comment

In 1976, JDM Gass² hypothesised that, in neuroretinitis, exudation from leaky papillary vessels was followed by intraretinal fluid progressing from the optic disc towards the macula. Our report illustrates the dynamics of events proposed by Gass *in vivo*. The presence of intraretinal fluid in neuroretinitis has been previously demonstrated by OCT but not at the earliest stage of the disease.³⁻⁵ In the setting of disk oedema of unknown aetiology, demonstration of parapapillary intraretinal fluid can orientate the proper diagnosis.

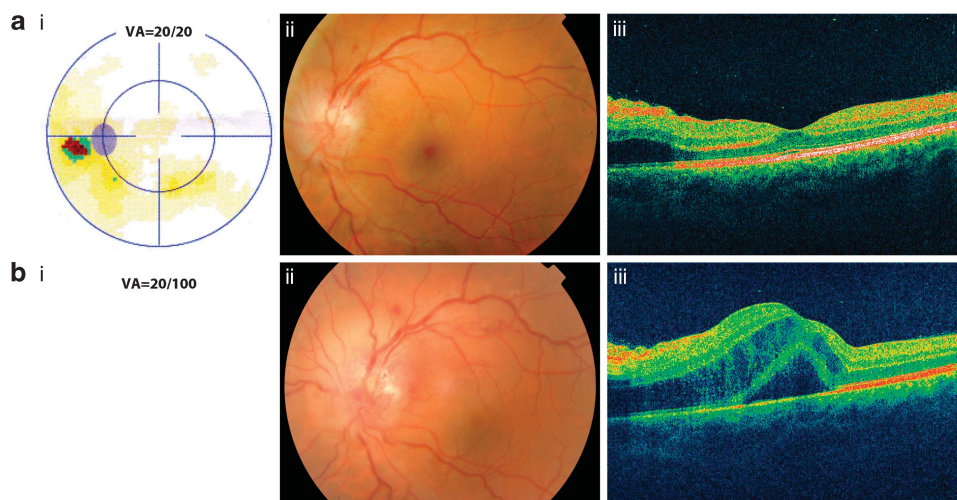


Figure 1 Evolution of maculopathy in the left eye from the earliest stage (no maculopathy) until complete healing, 9 months later. (i) Visual field testing was performed with Octopus 900 perimeter (Haag-Streit AG, Köniz, Switzerland). (ii) Fundus photography. (iii) Spectral-domain optical coherence tomography (OCT) was performed with Cirrus OCT (Carl Zeiss Meditec, Dublin, OH, USA). (a) Day 2, partial parapapillary scotoma; visual acuity 20/20 a(i). Optic disc swelling and parapapillary flame-shaped haemorrhages a(ii). Intraretinal fluid leaking from the optic nerve in the outer plexiform layer without central macular oedema a(iii). (b) Day 4, visual field was not performed; visual acuity 20/100 b(i). Optic disc swelling and macular oedema without lipidic precipitates b(ii). Progression of intraretinal fluid in the outer plexiform layer towards the central macula with central serous retinal detachment b(iii). (c) Day 10, central scotoma; visual acuity 20/200 c(i). Macular star and lesser degree of macular oedema c(ii). Decrease of intraretinal fluid and persistence of a slight subretinal serous foveal detachment c(iii). (d) Day 13, improvement of visual field defect; visual acuity 20/50 d(i). Macular star without macular oedema d(ii). Disappearance of the subretinal fluid d(iii). (e) Month 9, residual arcuate scotoma; visual acuity 20/20 e(i). Normal appearance of the macula e(ii). Normal macular and foveolar anatomy e(iii).

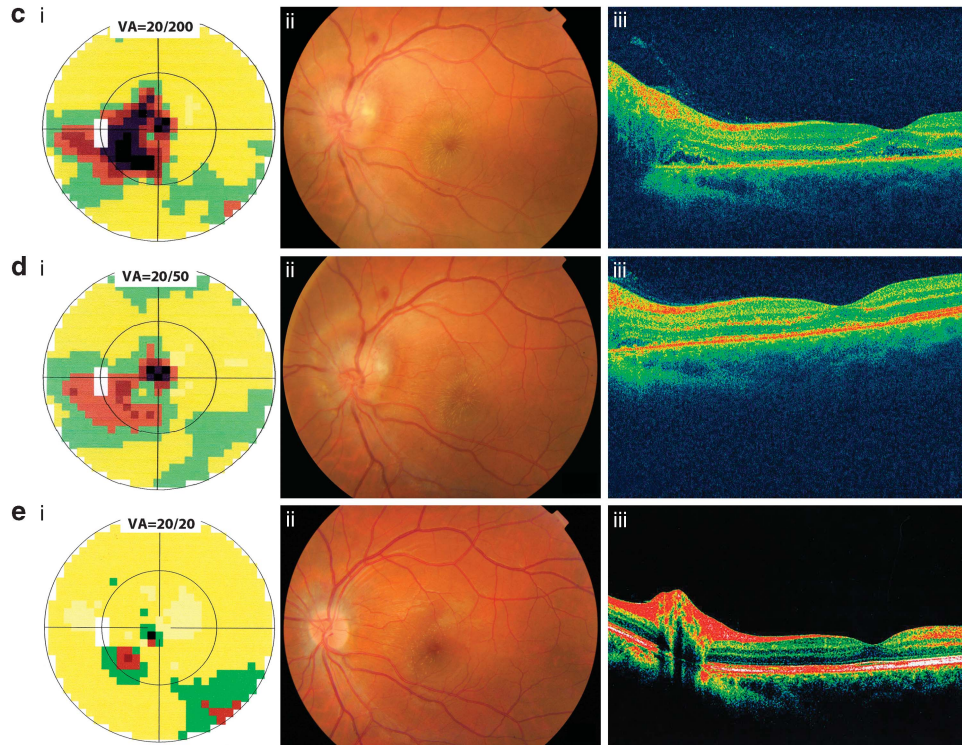


Figure 1 (Continued).

Conflict of interest

The authors declare no conflict of interest.

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Eye (2014) **28**, 770–771; doi:10.1038/eye.2014.44;
published online 14 March 2014

Sir, Traumatic aniridia after trabeculectomy

We report the case of a patient who suffered blunt trauma a month after trabeculectomy with mitomycin C (MMC), resulting in traumatic aniridia.

Case report

A 60-year-old Caucasian man underwent successful trabeculectomy in his right eye for advanced glaucoma with 0.4% MMC. After 1 month, his visual acuity (VA) remained stable at 6/36 (OD) and 6/6 (OS) with a functioning bleb and intraocular pressure (IOP) of 17 mm Hg compared with 24 mm Hg preoperatively.

A few days later, he suffered a blunt trauma with a metal tool falling and hitting his right eye. His VA was 'hand movements' with an IOP of 18 mm Hg in his right eye. There was complete absence of his iris and brown pigmented tissue was found beneath the bleb extending superonasally. There was a 1-mm hyphaema but no leak, with deep anterior chamber, stable lens, and no posterior segment involvement.

Perioperatively, the entire iris had prolapsed and plugged the scleral flap spreading from the superior rectus