

mild-red desaturation in the right eye and visual distortion on Amsler grid monitoring. This corresponded to an area of retinal capillary nonperfusion at the infero-nasal margin of the foveal avascular zone on repeat FFA (Figure 2).

Comment

In the few reports of dengue patients with ocular involvement, common symptoms were blurred vision, central scotoma, floaters, photophobia, and haloes.¹⁻⁴ Ocular findings included anterior chamber and vitreous inflammatory cells, intraretinal and peripapillary haemorrhage, Roth's spots, intraretinal lesions, maculopathy with diffuse oedema, vasculitis, and blurring of the optic disc margins.¹⁻⁴

The precise ocular pathophysiology in dengue fever is unknown.¹ Our patient's ocular manifestations occurred 1 week after dengue fever, when her platelet count was at its nadir. This time interval is consistent with those previously reported¹⁻³ and may suggest an immune-mediated process,¹ possibly coinciding with the onset of IgG production. The retinal haemorrhages may be explained by thrombocytopenia and a transient bleeding diathesis. In contrast to another series of patients,¹ our patient's ocular manifestations were not confined to the vascular arcades in the maculae region, but extended outwards to the peripheries, suggesting a more diffuse inflammatory process.

Unlike other vasculitic disorders, despite conservative management, there was complete resolution of the fundal signs and normal visual acuity by 10 weeks.

This case report demonstrates that dengue fever may manifest as severe panretinal vasculitis and macula oedema, which coincides with the nadir of the thrombocytopenia on day 7 of the illness. Although severe, these conditions may be self-limiting and may resolve spontaneously without specific anti-inflammatory or antiviral therapy.

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Sir,
Bilateral non-arteritic ischemic optic neuropathy associated with pegylated interferon for chronic hepatitis C

It is recognized that standard interferon therapy can rarely cause ocular toxicity, including retinopathy and optic neuropathy,¹ but the frequency and severity of adverse effects of the pegylated form is not known.

This 46-year-old man with a 4-month history of hepatitis C, whose risk factor for this infection was past blood transfusion, had been treated with PEG interferon alpha 2B at 0.5 ml subcutaneously per week. He was not taking any other medications. After 3 weeks of treatment, he presented with acute bilateral visual loss. He described sudden blackout of his vision upon awakening without any headache or ocular pain. He had no diabetes, hypertension, heart disease, or past history of alcohol, smoking or drug abuse.

His visual acuity was 20/400 OD and 20/100 OS without relative afferent pupillary defect. Extraocular motility was full. Automated perimetry revealed bilateral inferior altitudinal defects. Slit-lamp examination and intraocular pressures were normal. He had bilateral swollen optic discs without hemorrhages or cotton wool spots. Macular and peripheral retinal exam was normal.

Magnetic resonance imaging and magnetic resonance angiography of the brain and orbits with and without gadolinium were normal. Alanine transaminase and aspartate transaminase were elevated. Complete blood count, platelets, ferritin, % saturation, ceruloplasmin, antinuclear antibody, sedimentation rate, rheumatoid factor, RPR, angiotensin-1-converting enzyme, Lyme titers, serum and urine methylmalonate, folate, 24-h urine for heavy metals, and Leber's hereditary optic neuropathy genetic testing were normal. Cerebrospinal fluid protein, glucose, cell count, gram stain, immunoglobulin index, oligoclonal bands, neuromyelitis optica antibody and cytology were all unremarkable. The patient chose to stop treatment after his visual loss, and his visual acuity improved slightly to 20/80 OU with residual inferior field defects.

Comment

This report describes bilateral non-arteritic ischemic optic neuropathy (NAION) associated with only PEG interferon alpha 2B and poor functional visual recovery. The prompt onset of visual loss after initiation of therapy, the rare occurrence of simultaneous NAION² and the lack of vascular risk factors in this young patient suggests that his NAION was related to PEG interferon alpha 2B. Central nervous system disorders and other autoimmune, vasculitic, nutritional and genetic optic neuropathies that could cause acute bilateral visual loss were ruled out. Another report described a similar presentation in a patient treated with both PEG interferon alpha 2B and ribavirin.³ At least eight cases of NAION⁴ associated with standard interferon have been reported in the literature. Although new pegylated interferons have improved pharmacokinetics and better antiviral efficacy,⁵ idiosyncratic ocular toxicity has been associated with variable doses and duration of interferon therapy. Lohmann *et al*⁶ postulated that interferon-alpha can produce autoantibodies that lead to deposition of immune complexes in the posterior ciliary arteries to cause NAION. Interferon-alpha can also stimulate other cytokines to cause an inflammatory reaction in blood vessels leading to ischemia.⁶

Therefore, physicians treating chronic hepatitis C patients with pegylated interferon should be aware of the potential complication of severe NAION that can occur at any time after the initiation of this drug.

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Sir,

The attitudes and practice of Muslim patients using guttae medication during Ramadan

A questionnaire-based study of 80 Muslim patients revealed that there are different opinions regarding the use of eye drops during Ramadan:

- (1) Drops break the fast, but this does not matter because they are excused from the fast because of illness.
- (2) Drops do not break the fast even if they are tasted and reach the stomach, because eye drops do not provide nutrition and this is not a normal route of ingestion.
- (3) Drops do not break the fast as long as they do not reach the throat.
- (4) Drops break the fast irrespective of illness or whether or not they are tasted and should be omitted.

The large majority of patients in our study fell into category 4.

Compliance and concordance with eye drop medication may be improved by a number of measures. If possible, single dosing may avoid any problems. Making eye drops tasteless may help patients who