

Case report

A 62-year-old Caucasian woman with a 12-month history of progressive paresthesias below the first lumbar level (L1) was hospitalized for rapid onset of ascending sensory impairment to the sixth thoracic level (T6), ataxia, saddle anesthesia, and diminishing central vision. Best-corrected visual acuity (BCVA) was 20/40 in the right eye and 20/400 in the left eye. Her BCVA had been 20/25 bilaterally two years prior. Color discrimination was severely diminished at 4/12 Ishihara color plates in the right and 1/12 in the left. Dilated fundus exams showed small flat yellowish deposits limited to well-circumscribed subfoveal areas of retinal pigment epithelium (RPE) atrophy (Figure 1). There was no optic nerve pallor. The fundus appearance and fluorescein angiogram findings were similar to those described in cases of congenital MMA.^{4,5} Full-field electroretinograms revealed mildly reduced scotopic and photopic responses in the left eye.

Despite a low normal level of vitamin B12 (298 pg/ml; reference 180–914 pg/ml), the patient's serum methylmalonic acid (0.30 $\mu\text{M}/\text{l}$; reference <0.30 $\mu\text{M}/\text{l}$) and homocysteine (22.2 $\mu\text{M}/\text{l}$; reference 6.2–15.0 $\mu\text{M}/\text{l}$) levels were elevated, consistent with a diagnosis of vitamin B12 deficiency. Furthermore, brain and spinal cord magnetic resonance imaging revealed T2-weighted hyperintensity of the entire dorsal columns, characteristic of vitamin B12 deficiency.

The patient was treated with cyanocobalamin injections by the inpatient Neurology service. Six weeks after treatment, her ataxia, paresthesias, as well as bowel and bladder function improved. Color discrimination improved to 8/12 in the right and 5/12 in the left eye. Nine months after treatment, her BCVA was stable at 20/40 in the right but improved from 20/400 to 20/40 in the left.

Comment

Vitamin B12 deficiency leads to low cellular levels of methionine and elevated levels of homocysteine. These alterations have either been hypothesized or shown to disrupt RPE, photoreceptor, and ganglion cell function.^{1,5,6} The partial reversibility of the patient's visual function may reflect the normalization of her homocysteine levels after treatment. This case suggests that vitamin B12 deficiency should be considered in the differential diagnosis of elderly patients presenting with worsening vision and macular findings that might otherwise be mistaken for new or worsening AMD. These patients may benefit from vitamin B12 screening as early detection and treatment may alter disease progression.

Conflict of interest

The authors declare no conflict of interest.

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Sir,

A case of accidental retinal injury by cosmetic laser

With the usage of laser in the fields of industry, research, and military, the risk of potential injuries is very real. We would like to report a patient who suffered a cosmetic laser-induced retinal injury.

Case report

A 25-year-old female was accidentally exposed to a cosmetic laser (SPECTRA-VRM II, MAX Engineering Ltd, Goyang City, South Korea) in 2012. The laser fired inadvertently when the patient was adjusting target without the use of her protective goggles. Immediately after the exposure, she experienced a bright flash of light followed by floaters in front of her right eye. The pulse duration and energy of the laser were not assessed. The patient's best-corrected visual acuity was 20/20 OD and 20/20 OS. Intraocular pressure and anterior segment biomicroscopy were unremarkable. Fundoscopic examination of her right eye revealed an inferior retinal laser burn and vitreous hemorrhage (Figure 1a). Prednisolone and vitamins were administered orally. Three days later the floaters in front of her right eye decreased, and fundoscopic examination of the eye revealed a laser burn with retina edema around it and vitreous hemorrhage (Figure 1b). Unfortunately, the patient did not return for further follow-up.

Comment

Some laser-induced eye injuries have been reported in the past. However, there has not been a case of cosmetic laser-induced retinal injury reported before.

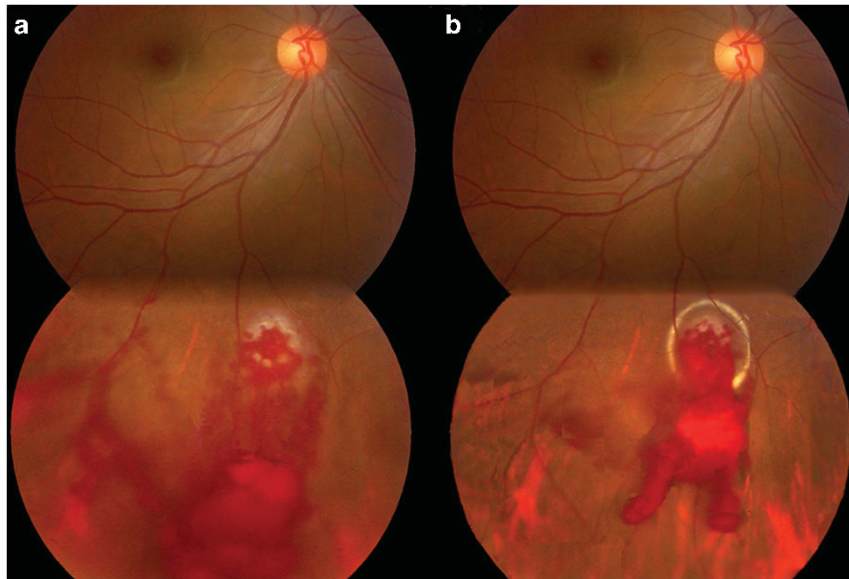


Figure 1 Fundoscopic photograph on the day of injury revealed vitreous hemorrhage and the site of laser injury on the inferior retina (a). Three days following the exposure, fundoscopic photograph revealed the laser injury with retinal edema around it (b).

In recent years, 1064-nm Q-switched Nd:YAG cosmetic laser therapy for the removal of age and sun spots has become popular especially in China. In contrast to previously reported cases,^{1,2} the location of the injury was not at the macula. The most important factor in determining the functional damage to the retina is the location of the retinal injury. Lesions to the periphery of the eye may not cause symptoms or affect the vision.

The importance of inflammation and oxidative stress in laser injuries has been suspected but not studied in detail. Current medical treatment for retinal laser injuries is systemic administration of anti-inflammatory and antioxidant drugs, typically corticosteroids^{3,4} and vitamins, that are believed to limit retinal injury, reduce vision loss, and promote recovery.⁵

Conflict of interest

The authors declare no conflict of interest.

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Sir,
Multifocal chorioretinitis caused by *Bartonella henselae*: imaging findings of spectral domain optical coherence tomography during treatment with trimethoprim-sulfamethoxazole

We report a case of cat scratch disease with manifestation of multifocal chorioretinal lesions and we document the imaging findings through spectral domain optical coherence tomography (SD-OCT) during the course of the disease from early presentation until the resolving of symptoms.