The patient relapsed 3 months later with headache and a transient ischaemic attack while on prednisolone 30 mg/day. Labyrinthine failure had developed. Prednisolone was increased to 1 mg/kg/day and methotrexate was introduced at 15 mg/week. Within 3 months, she had developed left anterior optic neuritis with retinochoroidal oedema causing reduced visual acuity (6/24) and colour vision (15/17 Ishihara). On MRI brain scan, there was progression of ischaemic changes. Topical steroid was given and methotrexate was increased and continued at 20 mg/week. Acuity and colour vision improved to normal. Prednisolone was tapered slowly to 10–15 mg/day. Neither the keratitis nor the uveitis has recurred to date. The patient has been stable for 2 years.

Comment

CS presents almost equally to ophthalmology and ENT and median time to second organ involvement is 1 month.[5] At least one serious outcome (blindness, deafness, vasculitis, aortic insufficiency, or death) occurs in 63% of cases.[2] In all, 10% of patients have neurologic involvement;[2,5] although widespread CNS ischaemia has been reported in only two individuals.[5] About 30% of CS is atypical and more likely to be associated with systemic features and a poorer prognosis.[3,4] Our patient had an atypical ophthalmic mode of presentation, which probably represented acute on chronic angle closure glaucoma. Furthermore, and in keeping with her atypical CS, she had severe, widespread neurologic involvement with CNS ischaemia, optic neuritis, and peripheral neuropathy.

The most common serious complication of CS is deafness, which may be ameliorated if oral steroids are started within 2 weeks of onset.[3] Ocular inflammation frequently responds to topical steroids. Systemic vasculitis usually responds to oral steroids, although aortitis may require aortic valve replacement.

The role of other immunosuppressants is not established and, owing to the rarity of CS, may depend upon the collected experience of case reports. Three patients with diagnosed CS, who underwent methotrexate therapy experienced stabilised hearing and were able to reduce or discontinue steroids.[6] Our experience supports the use of methotrexate in steroid-resistant patients, especially those with CNS involvement.

We recommend that all patients with CS, especially atypical cases, should have regular ENT and ophthalmic assessments and that neurologic symptoms require urgent assessment. Such collaboration will help ensure appropriate and timely therapy.

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Sir,

Valsalva retinopathy associated with riding a motorcycle

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The Valsalva manoeuvre comprises forcible exhalation against a closed glottis, thereby creating a sudden increase in the intrathoracic or intraabdominal pressure.[1] Spontaneous rupture of peri-foveal capillaries may develop, leading to a characteristic clinical picture of a retinal haemorrhage in an otherwise healthy eye.[2] The haemorrhage typically occurs at the macula and in the vast majority of cases is an isolated and self-limited event.[2] A case is presented of a transient maculopathy in a young healthy male attributable to a Valsalva

manoeuvre associated with riding a motorbike on one wheel.

Case presentation

A 14-year-old male presented to our clinic having been referred by his optician for a sudden onset of visual loss in the left eye, which occurred while riding a motorcycle 3 days previously. Detailed history revealed considerable straining while trying to perform the stunt of riding the motorcycle on its back wheel. There was no history of having sustained a fall or head injury. He was otherwise well with no previous past medical or ophthalmic history of note. Snellen acuity was 6/5 and 6/36 not improving on pinhole. There was no afferent papillary defect and examination of the anterior segment was unremarkable. Intraocular pressures were normal at 11 mmHg bilaterally.

Dilated fundal examination revealed a deep intraretinal haemorrhage at the left fovea with no evidence of other retinal pathology (see Figure 1). The optic disc was normal and there was no preretinal or vitreous haemorrhage. Investigations including blood pressure, full blood count, and clotting studies were normal. A diagnosis of Valsalva retinopathy was made based on the history and management consisted of rest, avoidance of strenuous activity, and observation. At 4-week follow-up, the visual acuity had improved to 6/5 in the affected eye and fundal examination revealed total resolution of the foveal haemorrhage.

Comment

Valsalva retinopathy is a known complication of physical exertion.[3] It can arise due to an increase in intrathoracic or abdominal pressure against a closed glottis. The rapid rise in venous pressure may lead to the rupture of normal/abnormal superficial retinal capillaries, leading to haemorrhagic detachment of the internal limiting membrane and possibly intragel haemorrhage. It has been associated with certain sports such as weight-lifting,[2] aerobic exercise[3] and on a day-to-day basis with constipation,[4] pregnancy,[5] labour,[6] and blowing up balloons.[7] Congenital abnormalities of the retinal vasculature such as familial retinal arteriolar tortuosity have also been implicated.[8] This is the first reported case occurring in association with riding a motorcycle. The mechanism in this case was considerable straining while the subject was trying to lift the machine on its back wheel while in motion.

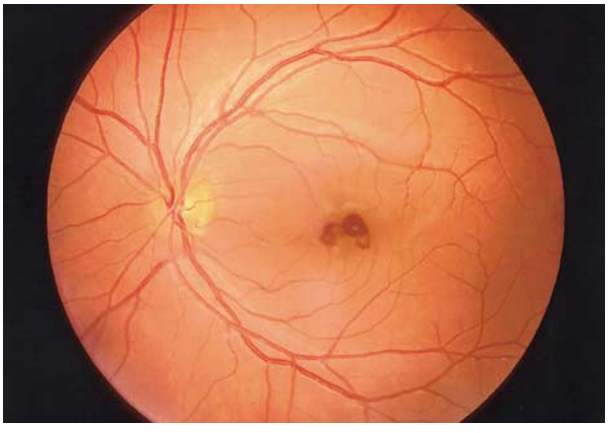

Figure 1 Colour photograph showing an intraretinal haemorrhage at the left macula following a Valsalva manoeuvre associated with riding a motorcycle.

The presentation of Valsalva retinopathy can be variable depending on the size of the vessel involved and the location of the haemorrhage; subretinal, intraretinal, and/or subhyaloid.[9] Prognosis is generally favourable with most cases resolving spontaneously over a span of several weeks, leaving little if any visual impairment. Large subhyaloid haemorrhages have been treated with Nd : YAG laser to facilitate evacuation of the blood into the vitreous and accelerate resolution.[10]

Our case describes a rare mechanism of Valsalva retinopathy, which developed while performing the stunt of riding a motorcycle on its back wheel. Since this manoeuvre is not uncommon especially among the younger riders, we highlight a previously unreported ocular complication that may occur.

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Sir,

Extensive peripapillary exudation secondary to cat-scratch disease

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Cat-scratch disease is a worldwide zoonotic infection, with the reservoir of infection being domestic cats. It became recognized as an important human pathogen in the mid-1990 s.[1] In the United States, it has been estimated to affect approximately 22 000 people annually; its prevalence elsewhere is unknown.[1] Ocular involvement occurs in 5–10% of patients with cat-scratch disease.[1]

Case report

A 42-year-old healthy female presented with a 5-month history of blurred vision in her left eye. On examination, vision was 6/6 right and 6/9 left. Visual fields to confrontation demonstrated a central scotoma. Pupillary reactions and colour vision were normal. Anterior segment examination was unremarkable. A few vitreous cells were noted, but the most remarkable finding was optic disc swelling with adjacent retinal folds. Right eye was normal. The patient had no family history of any eye problems. She had not recently travelled abroad and did not keep any pets. A number of blood tests including FBP, ESR, vasculitic, and autoimmune screen, were normal. Plain chest X-ray was also normal.

After 2 months, a yellowish deposit was accumulating around the optic nerve (Figure 1a). A fluorescein angiogram confirmed a swollen optic disc with prominent leakage. Further screening tests for infective agents including toxocara, toxoplasmosis, leptospirosis, and luetic disease were all negative. A CT scan of orbits, optic nerve, and brain showed no abnormality. The patient was referred to haematology to exclude an infiltrative process. MRI scan was normal and bone marrow biopsy showed no evidence of lymphoproliferative disease. At the next clinic visit, vision was 6/36 and the yellowish deposit previously noted at the left optic disc had increased in size with an associated serous detachment of the macula (Figure 1b).

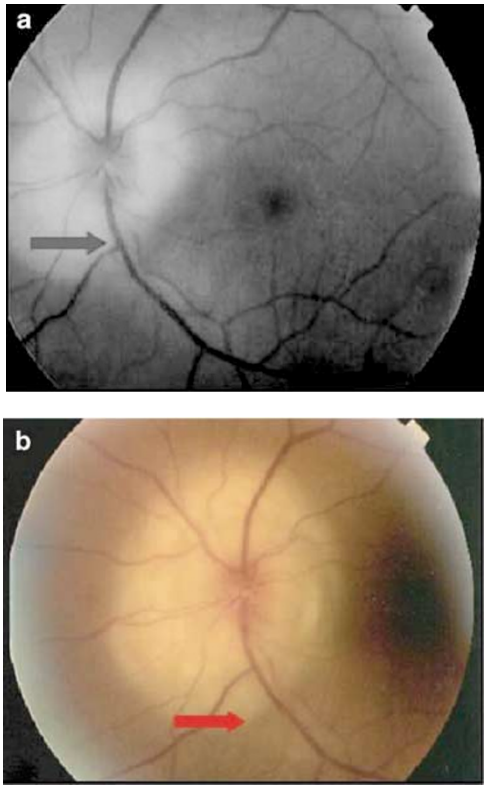

Figure 1 The pictures clearly show the increase in peripapillary exudation.

Bartonella titres were sent to rule out cat-scratch disease. These returned strongly positive (*B. henselae* IgG 256, IgM <20; *B. quintana* IgG 128, IgM <20). The patient then remembered that a feral cat had scratched her 12 months before the start of her visual symptoms, although at no time following this event did she recollect feeling unwell.

The patient was commenced on a 6-week course of rifampicin 300 mg b.d. and doxycycline 100 mg b.d. After 1 month, a definite decrease in the density of the lesion was noted. This improvement continued over the ensuing 12 months. The true extent of the substantial change in the prominence of the exudation can only be appreciated stereoscopically (Figure 2). Unfortunately, vision remained poor at 6/60 from structural foveal changes.