

Comment

IPCV is a vascular disorder that originates from the choroidal circulation. The incidence of the condition is highest in black women, but IPCV occurs in both sexes and in other races as well.⁴ The characteristic vascular lesions are usually found in a peripapillary location, but there are a growing number of reports on macular IPCV cases that do not have peripapillary involvement.¹⁻⁵ In a recent article, 94% of the lesions were macular in Japanese patients.⁷ Although the number of peripapillary and macular IPCV cases is rising, peripheral IPCV is still very rare. The reasons for the rarity of this form, and for the differences between races with regard to location of IPCV lesions, are unknown.

ICG angiography is essential in the diagnosis of IPCV, and for guidance in focal laser photocoagulation.^{4,5} The best way to manage patients with IPCV remains unclear, but laser photocoagulation of the polypoidal choroidal lesions is advised if there is subretinal fluid accumulation, if hard exudates are present, or if haemorrhage is threatening the fovea.⁵ The benefits of laser photocoagulation have already been described.⁵ In our case, laser photocoagulation was done because of the patient's low visual acuity and the fact that the detachment involved the macula. However, the patient's visual acuity improved only slightly during follow-up. This may have been due to the long-standing detachment of the fovea. The use of a diode laser for treating IPCV has been suggested in one report, but experience with this modality is limited at present.⁸

IPCV must be differentiated from various other ocular pathologies because of its unique course and the treatment required. With regard to differential diagnosis, subretinal choroidal neovascularisation secondary to age-related macular degeneration remains the most important pathology. Although both conditions are vascular and originate in the choroid, the lack of drusen and focal hyperpigmentation, the reddish-orange colour of the lesions on fundus examination, and the sharply demarcated, nodular pattern of the lesions on ICG angiography differentiate IPCV from subretinal choroidal neovascularisation secondary to age-related macular degeneration. Inflammatory and neoplastic disorders of the choroid must also be included in differential diagnosis.⁹

In the presented case we made the diagnosis of IPCV on the basis of the typical appearance of the lesions on fundus examination and ICG angiography. The rarity of the peripheral location makes this IPCV case interesting. In the future, performing ICG angiography on patients who have no history of trauma but who exhibit subretinal haemorrhage at the periphery of the fundus, may reveal more cases of peripheral IPCV.

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Sir,

Idiopathic sclerochoroidal calcification

Idiopathic sclerochoroidal calcification (ISC) is a rare benign disorder which may be confused with the usually solitary lesions of choroidal osteoma that are most often found in young females 10-30 years of age.^{1,2} In contrast, ISC generally occurs in older patients (mean age 76 years), with multiple lesions which are typically outside the foveal region, usually leaving visual acuity unaffected. ISC is characteristically bilateral.^{1,3} Other entities which may be confused with ISC are choroidal metastases, amelanotic melanoma and choroidal granuloma. Choroidal metastatic carcinoma lesions are generally larger, thicker, more well defined and often associated with serous retinal detachment.

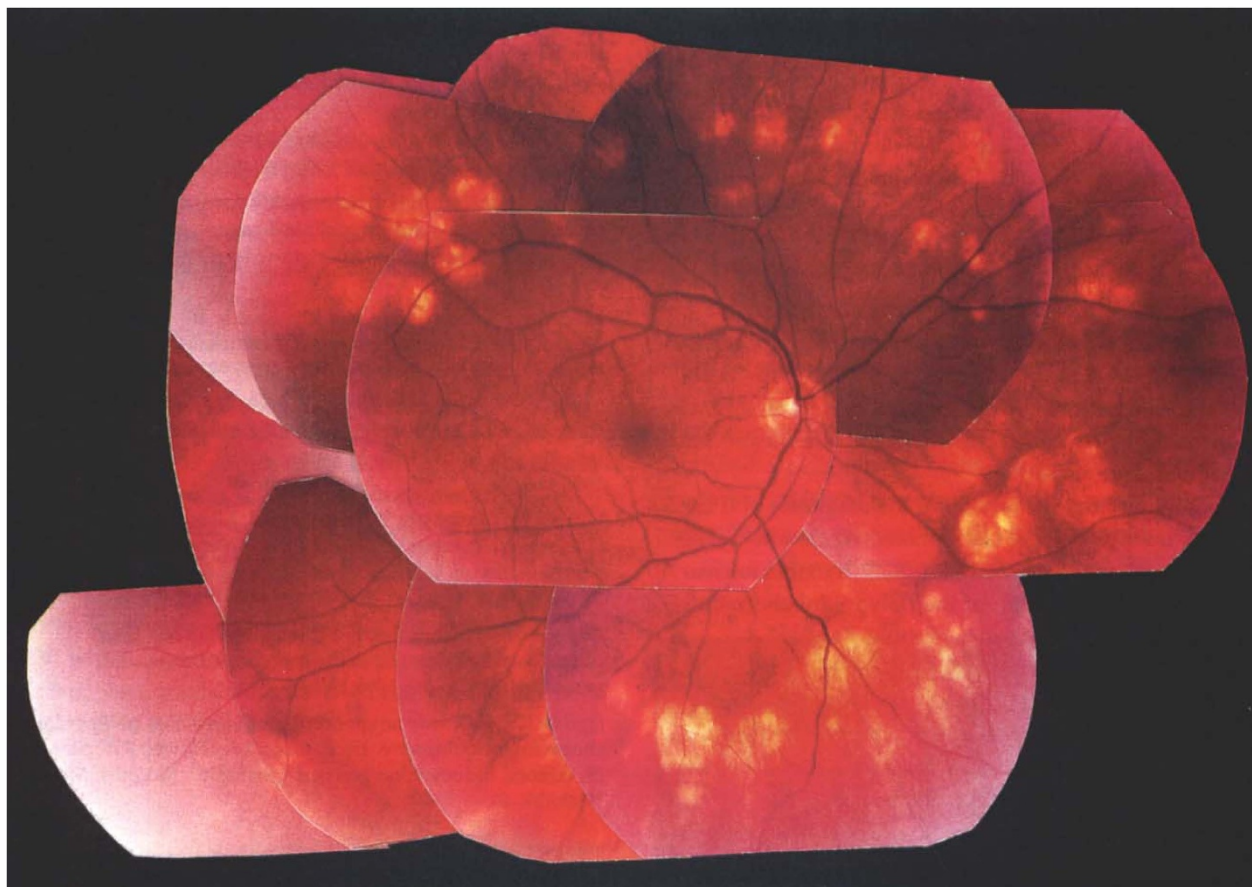


Fig. 1. Composite photograph of the right fundus showing idiopathic sclerochoroidal calcification.

It is recommended that patients with sclerochoroidal calcifications should be evaluated for calcium metabolism before the condition is labelled idiopathic,^{1,4} since secondary causes of the disorder are associated with hyperparathyroidism, renal disease, pseudohypoparathyroidism, sarcoidosis, vitamin D intoxication and primary hypercalcaemia.^{5,6}

The lesions in ISC are flat or minimally elevated, yellow in colour and located deep to the retina, presumably in the deeper choroid and inner sclera. In most of the described cases the lesions were located near or above the superotemporal arcade of retinal vessels, although in one case the lesions were found in the inferior midperiphery of both eyes and assumed to be atypical inferior choroidal osteomas.² It has been speculated that this condition occurs near the insertion of superior oblique muscle as a result of chronic tractional forces exerted by the muscle on the globe.¹

Like choroidal osteoma, ISC has a characteristic ultrasonic appearance showing marked shadowing posterior to the lesion.^{4,6} This is in contrast to choroidal metastases which produce echogenic domes or plateau-shaped choroidal echoes without evidence of calcification and orbital shadowing.³ This differentiation is important as ISC has been mistaken for choroidal metastases and subsequently inappropriately treated with external beam radiation.⁶

Although choroidal neovascularisation and disciform scars have been described in about 25% of cases of choroidal osteoma⁴ they have not been reported in ISC. Visual loss has been reported in metastatic sclerochoroidal calcification (where deposits of calcium salts occur in previously normal tissues as a result of homeostatic abnormalities of calcium and inorganic phosphate⁷) but not in ISC.

Case report

Our patient was a 54-year-old Caucasian man. On routine examination by his optician he was found to have unusual lesions in both fundi. The patient was asymptomatic and acuity corrected to 6/5 for each eye with +4.0/-0.5×90° right eye and +3.5/-0.25×120° left eye. He was generally fit and did not use any medication. Fundoscopy showed multiple, discrete, yellow, minimally elevated lesions in both eyes in a circumferential pattern outside the large vessel arcades. There was thinning of both the choroid and overlying retina.

Ultrasound showed dense echogenic areas with acoustic shadowing behind the lesions. A computed tomography (CT) scan of the orbits was performed and a three-dimensional (3D) reconstruction demonstrated almost complete rings of calcification in both globes. The lesions were not, however, evident on plain radiographs. Serum calcium levels were within the normal range.

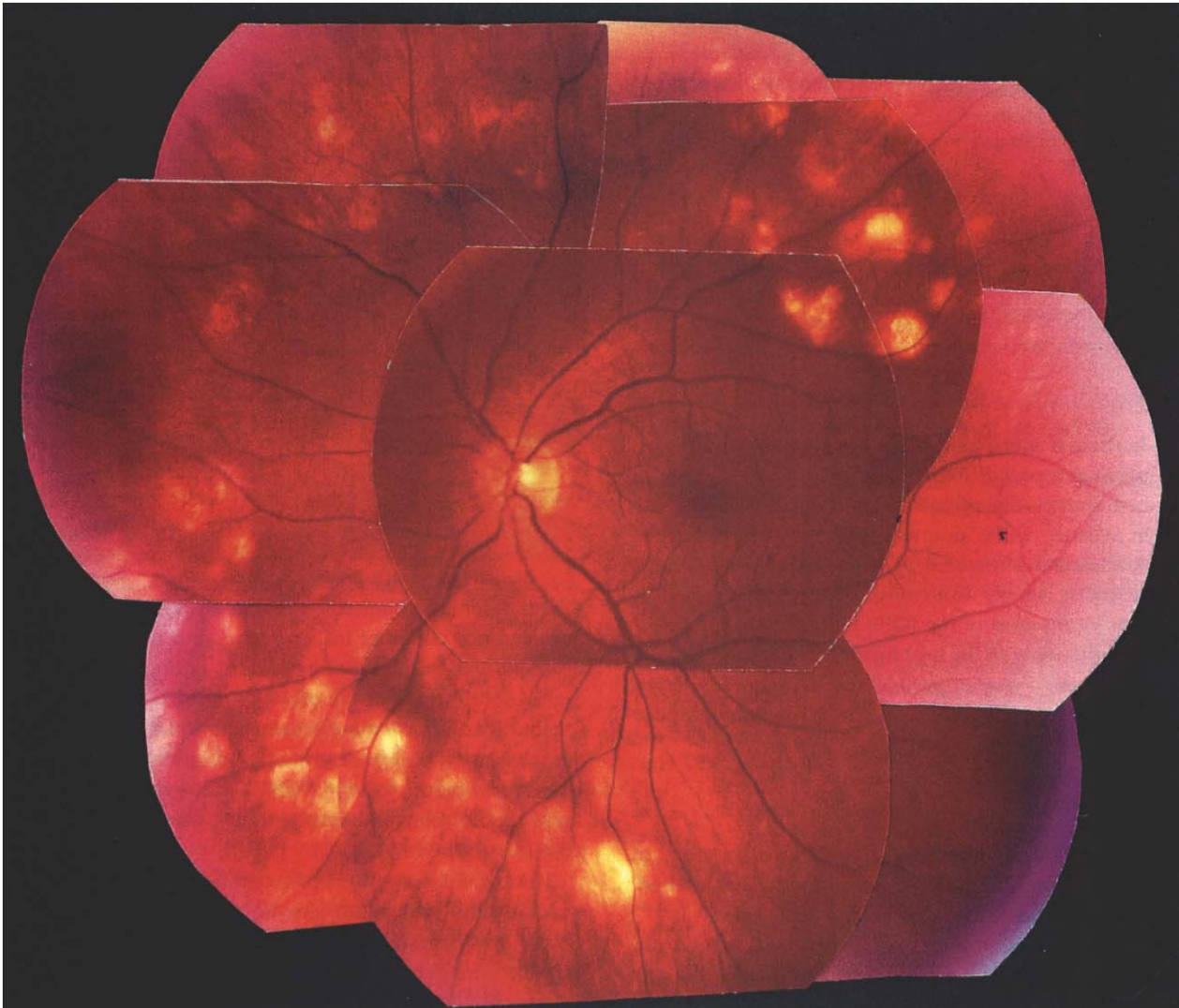


Fig. 2. Composite photograph of the left fundus showing idiopathic sclerochoroidal calcification.

Comment

ISC has been reported most frequently in the superotemporal peripheral quadrants of the eyes. Involvement of all quadrants is rare. Our case shows an almost confluent ring of lesions in both fundi. Although ISC lesions have been demonstrated previously by CT,^{4,6} we publish for the first time a 3D CT reconstruction of

ISC lesions. ISC has a better prognosis than choroidal osteomas since the lesions are extrafoveal and thus less likely to affect vision. Our patient is one of the youngest described in the literature.

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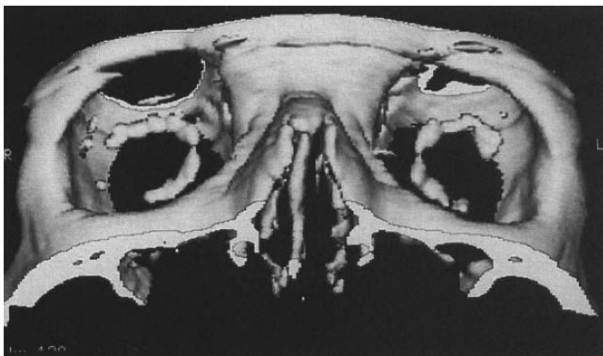


Fig. 3. 3D CT reformatted image of lesions of the orbits showing the distribution of the calcification (in the region of 500 Hounsfield units).

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Sir,

Para-lenticular metallic foreign body missed by high-resolution computed tomography

Retained ferric intraocular foreign body (IOFB) is well known to cause ocular siderosis with resultant toxicity to almost all ocular structures.¹ The mainstay of treatment is appropriate, timely and complete surgical removal.² Accurate localisation of the IOFB is important for pre-operative planning of the best means of surgical removal. We report here a case of para-lenticular metallic foreign body missed by high-resolution computed tomography (CT).

Case report

A 32-year-old phakic man was referred for assessment of blurred vision in his right eye for a month. On detailed questioning it was found that he had suffered a suspicious penetrating injury while hammering a nail 10 months previously. The visual acuity in his right eye was 20/50. The most striking slit-lamp findings were a 1 mm full-thickness limbal scar over the 10 o'clock position and a siderotic cataract (Fig. 1). A small iris defect located right at the iris root over the 10 o'clock position could be seen on gonioscopic examination. However, the iris colour was normal. Detailed fundal examination with

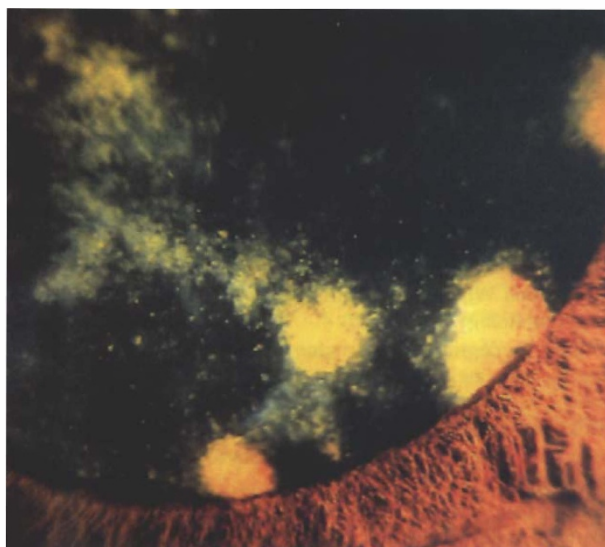


Fig. 1. Slit-lamp photograph showing a siderotic cataract.



Fig. 2. High-resolution CT scan of the orbits failed to demonstrate the presence of any foreign body.

scleral indentation failed to identify any IOFB. There was little anterior chamber inflammation and intraocular pressure was normal. Both standard radiographs and high-resolution CT of the orbits (3 mm axial cut and coronal scan with 1 mm reconstruction) failed to demonstrate the presence of any foreign body (Fig. 2). Ultrasound biomicroscopy (UBM), however, identified a small highly echogenic foreign body, about 2.2 mm posterior to the iris (Fig. 3).

The patient underwent phacoemulsification and IOFB removal with intraocular lens implantation under general anaesthesia 4 days after the diagnosis. The metallic foreign body was visible at the 8 o'clock position on scleral indentation after removal of the lens. It appeared to be in the para-lenticular space in close proximity to the zonules and the ciliary processes (Fig. 4). The IOFB was retrieved with intraocular forceps through a sclerotomy site at 2 o'clock under direct visualisation.



Fig. 3. Ultrasound biomicroscopy photograph localising the iris defect and a small highly echogenic foreign body.