Sir,

Hypertensive chorioretinopathy with Elschnig spots in a 3-year-old child

We illustrate the first reported case of hypertensive choroidopathy and retinopathy, including Elschnig spots, in a young, visually asymptomatic child with malignant hypertension.

Case description

A $3\frac{1}{2}$ year old boy presented with cough, vomiting, lethargy, and malignant hypertension (245/169 mm Hg). Investigations revealed renal failure (creatinine 231 μmol/l; reference age range, 17–36 μmol/l), microangiopathic haemolytic anaemia, and thrombocytopenia. Examination revealed normal anterior segments, bilateral swollen optic discs, and subretinal exudation (Figures 1a and b), and multiple discrete pigmented lesions surrounded by a pale halo (Elschnig spots; Figure 1e). There was a right subfoveal scar and a left macular star with massive exudation.

After 3 weeks of treatment, his blood pressure was 120 mm Hg systolic. Visual acuity was 20/80 OU (Kay's pictures) with existing +3DS glasses (cycloplegic refraction, OD $+5.50/-0.50 \times 15$, OS $+5.50/-0.50 \times 160$). At 3 months later, creatinine was 50 μmol/l, spectacle-corrected acuity 20/25 OU and stereoacuity 170″. Optic disc oedema and subretinal exudate had mostly resolved. There was left residual peripapillary pigmentation and a contracted right subfoveal scar (Figures 1c and d). Elschnig spots appeared unchanged (Figure 1f). Despite extensive investigation, the cause of his hypertension remains unknown. Possible aetiologies include atypical haemolytic uraemic syndrome, or renal scarring from an episode of transient neonatal renal failure, which had resolved spontaneously.

Comment

Hypertension in young children is rare, and usually secondary to an identifiable disorder.[1] Childhood hypertensive chorioretinal changes are even rarer. Reviewing 83 hypertensive children, Foster *et al*[2] found only

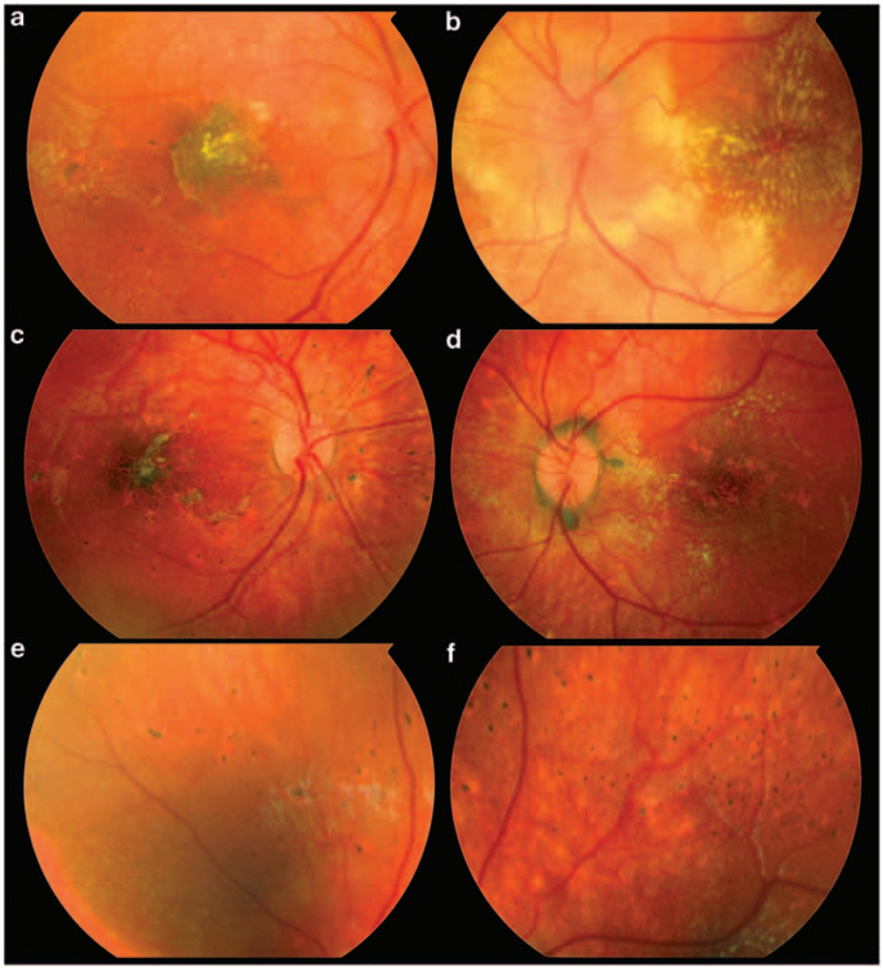

Figure 1 Photographs of right (a) and left (b) fundi at 3 weeks after presentation, showing bilateral optic disc oedema, subretinal exudation, right subfoveal scarring, left macular star exudate configuration, and Elschnig spots. Photographs of right (c) and left (d) fundi at 4 months after presentation and treatment, showing resolution of disc oedema, resorption of exudate, as well as residual Elschnig spots and peripapillary pigmentation. Elschnig spots in the mid-periphery, seen at 3 weeks (e) and 4 months (f) after presentation.

three with ophthalmoscopic abnormalities; these were mild, and they questioned the need for screening ophthalmoscopy in hypertensive children. However, Krause *et al*[3] found swollen optic discs and hypertensive retinopathy in 5.7% of paediatric kidney transplant recipients.

Optic disc oedema and macular star exudate configurations are seen in neuroretinitis as well as malignant hypertension. Neuroretinitis though is usually unilateral, and is not associated with extremely elevated blood pressure. These fundus findings have been reported in children with severe hypertension secondary to underlying renal malformations[4] and pheochromocytoma.[5]

Hypertensive choroidopathy is associated with acute severe hypertension (eg, pre-eclampsia and pheochromocytoma). Elschnig spots represent necrosis of choroidal arterioles and capillaries secondary to these acute rises in blood pressure, and were noted in rhesus monkeys within 24 h of the induction of malignant hypertension.[6] To our knowledge, they have never been reported in a child of this age.

We describe a unique case of severe hypertensive chorioretinopathy in a young child. Screening hypertensive children involves close collaboration between paediatric nephrologists and ophthalmologists, because many of these children have underlying renal disorders.

Conflict of interest

The authors declare no conflict of interest.

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Sir,

A case of anterior ischemic optic neuropathy associated with Behcet's disease

There are rare reports showing AION in Behcet's disease. Here, we report a case of AION in Behcet's disease with cilioretinal artery occlusion that was effectively treated by early oral corticosteroid treatment.

Case report

A 31-year-old man, diagnosed as having Behcet's disease 4 years earlier, presented with sudden reduced visual acuity in his right eye. He had been treated with oral prednisolone intermittently. At the first visit, his visual acuity was 20/80(OD) and 20/20(OS). He had recurrent oral aphthae and erythema nodosum on his lower legs. Upon fundus examination, there was a wedge-shaped ischaemic area with macular oedema on the papillomacular region (Figure 1a, left). Fluorescein angiography (FAG) identified an ischaemic area supplied by the cilioretinal artery and a focal area blocked by splinter haemorrhage (black arrow in Figure 1b, left). There was a caeco-central visual field

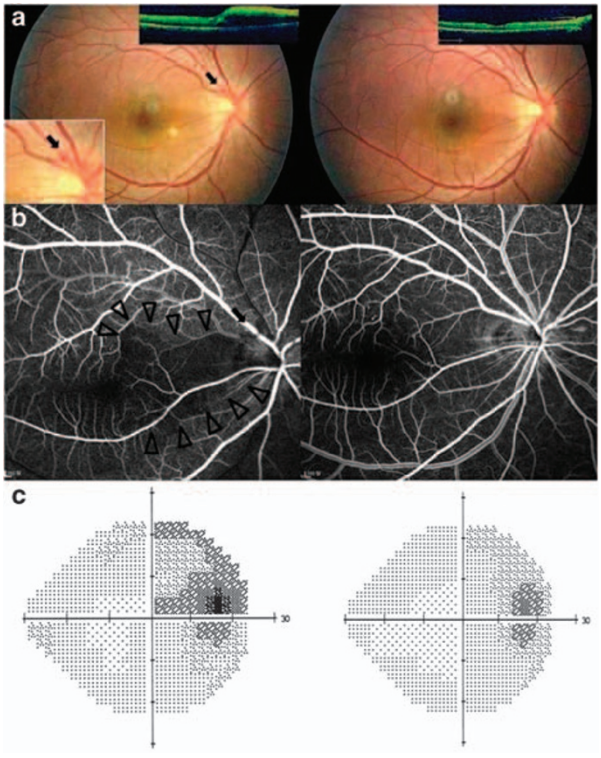

Figure 1 Colour fundus photographs at the first visit (left) and at 3 days follow-up (right). A wedge-shaped ischaemic area on the papillomacular region and a splinter haemorrhage (black arrow, inset) at first visit (left) resolved after 3 days (right). Macular optical coherence tomography at the first visit (left) and 3 days follow-up (right), showing the complete resolution of initially detected macular oedema (a). Fluorescein angiography at the first visit (left) and 1 month follow-up (right), showing an ischaemic lesion (arrowhead) and a focal area blocked by splinter haemorrhage (black arrow) initially (left), which resolved after 1 month (right) (b). Visual field tests at the first visit (left) and at 1 month follow-up, showing the visual field defect initially detected and its subsequent decrease in size (right) (c).