PHOTO ESSAY

Hypertensive Retinopathy in Takayasu Arteritis

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ABSTRACT

A 26-year-old woman presented with painless vision loss secondary to hypertensive retinopathy in the setting of Takayasu arteritis and renal artery stenosis.

Keywords: Hypertension, retinopathy, takayasu arteritis

CASE REPORT

A 26-year-old woman presented with 1-week history of painless bilateral visual decline. Her visual acuity was 20/30 right eye and 20/40 left eye. Her blood pressure was 176/123 and she was admitted for hypertensive crisis. Blood pressures measured bilaterally after treatment showed a difference of >10 mm Hg, with right side measuring 134/80 and left side

112/78 and decreased left radial pulse compared with the right.

Funduscopy examination revealed features of hypertensive retinopathy (Figure 1). A computerised tomographic (CT) angiogram shows multiple high-grade stenoses of the renal arteries and other visceral vessels (Figure 2).

A diagnosis of Takayasu arteritis was made. Treatment included several antihypertensive

FIGURE 1 Colour fundus photographs. There is mild bilateral optic disc swelling with retinal haemorrhages, cotton wool spots, and macular hard exudates bilaterally. (A) Right eye; (B) left eye. *Note:* Figure 1 of this article is available in colour online at www.informahealthcare.com/oph.

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FIGURE 2 Three-dimensional volume rendered CT angiogram showing critical stenoses within the two left renal arteries (dotted arrow). Short fat arrows demonstrate moderate stenosis in the main right renal artery and a mild stenosis in the accessory lower pole artery. The long, thin arrow shows a mild stenosis within the inferior mesenteric artery (IMA). The Superior mesenteric artery (SMA) is occluded at its origin and is not visualized but is reconstituted via the IMA (not shown).

medications and prednisone, with normalisation of her blood pressure and complete resolution of the retinal findings and visual acuity.

Visual manifestations are not uncommon in the setting of Takayasu arteritis.^{1,2} They depend on the location and severity of involvement of the aorta and its branches. Decreased ocular blood supply may result in arteriovenous anastomosis, retinal microaneurysms, ischaemic optic neuropathy, and in severe cases ocular ischaemic syndrome. In other patients, as in our case, severe underlying hypertension leads to disruption of the blood-retinal barrier, resulting in haemorrhages, lipoprotein exudates with formation of hard exudates, ischaemia of the nerve fibre layer resulting in cotton wool spots, and disc oedema.³

Declaration of interest: The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

Note: Figures 1 and 2 of this article is available in colour online at www.informahealthcare.com/oph.

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