NEUROLOGICAL PICTURE

Vertigo and amaurosis fugax secondary to Takayasu's arteritis

Case report

A 34 year old female outpatient presented with a 4 week history of vertigo and amaurosis fugax of her right eye. Physical examination showed arterial bruits in both subclavian regions, and reduced pulses of both radial and brachial arteries and right carotid artery. There was no significant blood pressure difference between the arms (right arm 95/85 mm Hg; left arm 100/90 mm Hg). Erythrocyte sedimentation rate was 23 mm/hour. White blood cell count was 15 000/mm³. Funduscopy showed no retinal or optic disc changes. Extracranial duplex ultrasonography showed signs of middle to high grade stenoses of the brachiocephalic trunk and left subclavian artery. There was no arteriosclerosis. "Systolic deceleration" was found in both vertebral arteries, and right common, internal and external carotid artery. Finally, CT angiography of the aortic arch (three dimensional visualisation with volume rendering; left anterior oblique view) disclosed a 70% stenosis of the brachiocephalic trunk (arrowhead) and two consecutive 40% stenoses (arrows) of the left subclavian artery (fig 1A). Additionally, digital subtraction angiography was performed to exclude cerebral vasculitis but yielded no further information (fig 1B). Brain MRI showed no structural lesions. The diagnosis of Takayasu's arteritis was made according to the 1990 classification criteria of the American College of Rheumatology.¹ A treatment with high dose prednisolone (500 mg/day) was started and then

tapered. The patient is still on medication, and except for a short episode of right arm weakness there have been no neurological deficits up to now.

In this patient, vertigo and amaurosis fugax of her right eye were haemodynamic manifestations of a two sided subclavian steal syndrome affecting both vertebral arteries and right carotid artery. Although a low incidence rate has been reported in Europe,² Takayasu's arteritis should always be taken into account in young women presenting with transitory neurological symptoms. Diagnosis is based on clinical features, and CT angiography as a non-invasive diagnostic procedure may replace conventional angiography in selected cases.³

J B SOMMER

Department of Neurology, University of Erlangen-Nürnberg,
Schwabachanlage 6, D-91054 Erlangen, Germany

B F TOMANDL

Division of Neuroradiology

- 1 Arend WP, Michel BA, Bloch DA, *et al.* 1990 criteria for the classification of Takayasu arteritis. *Arthritis Rheum* 1990;33:1129–34.
- 2 Waern AU, Anderson P, Hemmingsson A. Takayasu's arteritis: a hospital-region based study on occurrence, treatment and prognosis. *Angiology* 1983;34:311–20.
- 3 Qanadli SD, Sissakian J-F, Rocha P, *et al.* Takayasu's arteritis: spiral CT angiography findings. *Circulation* 2000;101:345–7.