Letters

Iatrogenic internuclear ophthalmoplegia

Sir: Unilateral lesions of the medial longitudinal fasciculus, clinically manifest as internuclear ophthalmoplegia, are usually vascular in origin. Smith and Cogan in a series of 29 patients, with unilateral internuclear ophthalmoplegia, attributed the condition to a vascular cause in 67% of cases. Despite the high incidence of a vascular aetiology, only one previous case of internuclear ophthalmoplegia following iatrogenic embolisation of the vertebrobasilar system has been reported. We report a case of unilateral internuclear ophthalmoplegia following cardiac catheterisation.

A 15-year-old male patient underwent cardiac catheterisation for the investigation of a suspected ventricular septal defect. The procedure was performed under local anaesthesia by percutaneous puncture of the right femoral vein. The foramen ovale was patent, facilitating the passage of the catheter into the left atrium. The catheter was then advanced into the left ventricle via the mitral valve. Left ventricular angiography was performed by the injection of 60 ml of "Hexabrix 320"* into the ventricle.

*Hexabrix 320 is an iodinated, iodinated contrast agent, being a serile solution of meylamine ioxaglate 39.3% w/v and sodium ioxaglate 19.65% w/v containing 320 mg iodine in combined form per ml.)

Veinicular septum profiles demonstrated a small perimembranous ventricular septal defect.

The patient reported no side effects during, or immediately after the investigation. However, the following day the patient complained of horizontal diplopia. This improved gradually after the next few days. He was examined in the ophthalmology department four days later, where he was found to have a horizontal diplopia, manifesting on dextroversion. Further examination of his ocular movements revealed an underaction and upshift of the left eye on adduction, and nystagmus of the right eye on abduction. A pronounced slowing of the saccadic velocity in the left eye on dextroversion was also noted. The rest of the examination including visual acuity, pupil reactions and general neurological assessment was normal. The patient was examined one month later; he was now asymptomatic, the eye movements having returned to normal except for a minimal underaction of the left eye on adduction.

Disorders of ocular motility represent a rare complication of cardiac catheterisation. Indeed, Hildner et al in a review of the complications in 600 adult patients who underwent transbrachial left heart catheterisation, failed to record any ocular motility problems. Thomas et al* have reported a case of a partial third nerve palsy in a 42-year-old male following retrograde cardiac catheterisation.

Unilateral internuclear ophthalmoplegia is most commonly associated with brainstem infarction.* Less common causes include demyelination, diabetes, systemic lupus erythematosis, Wernicke's syndrome, encephalitis, brainstem tumours, trauma6 and phenothiazone intoxication. Only one previous case of iatrogenic embolisation as a cause of internuclear ophthalmoplegia has been reported. This report described the sudden onset of unilateral ophthalmoplegia following carotid angiography for the investigation of a parasellar lesion in a 27-year-old woman. A persistent primitive trigeminal artery connecting the carotid and basilar systems was present, the posterior communicating arteries being absent. In common with the patient reported here, a full recovery occurred within one month.

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References

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