

document the tumour regression after globe-preserving treatment and to consider the individual prognosis of the patient with regard to further adjuvant treatment models.

In multivariate analysis, however, it is not unlikely that different patient populations will yield different parameters as most significant predictors. This is particularly true in the case of highly correlated parameters such as tumour diameter and calculated tumour volume. Therefore, only the examination of larger patient cohorts will finally yield a general prognostic model.

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Eye (2006) 20, 124–125. doi:10.1038/sj.eye.6701808; published online 28 January 2005

Sir,

Subacute subdural haematoma presenting with oculomotor nerve palsy, reduced vision, and hallucinations

Isolated oculomotor nerve palsies are a common presentation of ischaemic microangiopathy and intracranial aneurysms but represent an unusual presenting sign in spontaneous bilateral subacute subdural haematoma. These more commonly present with headache, fluctuating level of consciousness, and hemiparesis.

We report a case of subacute bilateral subdural haematoma presenting with a complete oculomotor nerve palsy, unilateral reduction in vision, and visual hallucinations in the absence of disturbed consciousness or other neurological findings.

Case report

A 73-year-old man presented to eye casualty with a 3-day history of headache and decreased vision in his left eye and a 2-day history of left ptosis. He also described formed visual hallucinations present upon closing his eyes. There was no history of trauma. He had a prior history of left sided nonarteritic anterior

ischaemic optic neuropathy with vision having stabilised at 6/7.5 in this eye at his last clinic appointment 3 months previously. He also had a history of ischaemic heart disease, atrial fibrillation and hypertension and was taking warfarin.

On examination his Glasgow Coma Scale was 15/15, his visual acuity was 6/9 in his right eye and 6/60 in his left when his lid was lifted. He had a complete left ptosis with an unreactive dilated pupil and restricted ocular movements in keeping with a complete left third cranial nerve palsy. The left optic disc was pale (as previously noted with the old anterior ischaemic optic neuropathy) and the right optic disc was normal. Cranial nerve and peripheral nervous system examination were otherwise normal. A CT angiogram was performed in order to exclude a compressive lesion such as an intracranial aneurysm and demonstrated bilateral subacute subdural haematoma with fresh haemorrhage (Figure 1). He was admitted to hospital and his INR was 3.82. His INR was reduced with vitamin K. Bilateral frontal and parietal burr holes were performed with evacuation of haematoma under pressure. At 48 h after surgery the third cranial nerve palsy signs and visual hallucinations had resolved and the visual acuity in the left eye had returned to its previous level.

Comment

This case displays a number of unusual features. In particular, it represents an unusual presentation of subdural haematoma. Isolated third cranial nerve palsies are classically associated with ischaemic



Figure 1 CT brain showing bilateral subacute subdural haematoma.

microangiopathy, particularly in the presence of diabetes, and with compressive lesions caused by intracranial aneurysms. They are a rare presenting sign in bilateral subdural haematoma. A review of 114 cases of bilateral subdural haematoma identified no cases in which the presentation involved an oculomotor nerve palsy.¹ Two cases have been published describing oculomotor nerve palsies in association with bilateral subdural haematoma. One describes a case similar to that reported here in which CT investigation of a patient presenting with an isolated oculomotor nerve palsy revealed bilateral chronic subdural haematoma, which also resolved following surgical evacuation.² The other describes a case of oculomotor nerve palsy and hemiparesis complicating the surgical drainage of subdural haematoma.³

Subdural haematoma rarely affects the anterior visual pathways, more commonly affecting the posterior pathways in the form of homonymous hemianopia. However, this case involved in addition to the oculomotor nerve palsy, an ipsilateral reduction in visual acuity, which subsequently resolved upon drainage of the haematoma. Both signs may have arisen by the same mechanism. This patient's CT brain revealed bilateral subdural haematoma causing downward displacement of the cerebral hemispheres with herniation of the uncus portion of the temporal lobe. This in turn is likely to have led to compression and paresis of the oculomotor nerve. The downward displacement may have led to traction of the optic nerve, which in this case, with a history of ischaemic optic neuropathy, is known to be vascularly compromised, resulting in reversible reduction in visual acuity. Following evacuation of the haematoma, with release of the traction on the optic nerve, normal visual acuity was restored. Hollander and Stewart⁴ describe a similar case in which sudden painless visual loss occurred in the presence of subdural haematoma with partial resolution following drainage. They similarly speculate that midline shift caused by subdural haematoma led to optic nerve traction and vascular compromise that was not detectable on imaging.

The patient in this case also described formed visual hallucinations occurring upon closing his eyes. Manford and Andermann⁵ describe three mechanisms by which complex visual hallucinations may occur: epileptic hallucinations due to direct irritation of cortical centres; visual pathway lesions resulting in defective visual processing with abnormal cortical release phenomena (Charles–Bonnet hallucinations) and disturbance of ascending cholinergic and serotonergic pathways in brainstem lesions. In this case the visual hallucinations described were most likely caused by direct stimulation of cortical centres by the

presence of the subdural haematoma. Charles–Bonnet hallucinations are less likely, given the relatively short duration of this patients' visual loss and the fact that these hallucinations were present only upon closing his eyes.

In summary, this case represents an unusual presentation of bilateral subacute subdural haematoma with oculomotor palsy, visual loss, and hallucinations.

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This work has not previously been presented at any meeting

Eye (2006) **20**, 125–126. doi:10.1038/sj.eye.6701809;
published online 21 January 2005

Sir,
Orbital well-differentiated liposarcoma demonstrating chromosomal imbalances

Although adipose tissue comprises a large portion of the orbit, liposarcomas consisted of only 2% of primary