LETTERS TO THE EDITOR

Temporary prism treatment of acute esotropia precipitated by fusion disruption

EDITOR,—A period of temporary fusion disruption may lead to decompensation of a pre-existing heterophoria or may precipitate an acute acquired concomitant esotropia.1 Conventional strabismus surgery is usually necessary to permanently restore binocular single vision (BSV), although botulinum toxin has been advocated.2 We describe two cases associated with unusual forms of occlusion induced decompensation who achieved fusion after temporary prismatic correction. Patient 1 underwent surgery and patient 2 avoided surgical correction and remarkably regained fusion while wearing base out Fresnel prisms of strength 50 prism diptres to restore fusion before intended strabismus surgery.

CASE REPORTS

Case 1
A 12-year-old girl with emmetropia was referred with a 2-year history of occasional intermittent horizontal diplopia at all distances. Visual acuities were 6/6 in the right and 6/6 in the left. A moderate esotropia (10 prism diptres) with delayed recovery at near and a moderate esotropia (14–16 prism diptres) becoming a right esotropia on dissociation with diplopia, at distance and far distance was present. Stereocuity and the prism fusion range were slightly reduced. Orthoptic exercises were prescribed but the patient was lost to follow up.

Four months later, after a new hair cut (Fig 1) in which one eye was regularly occluded, the patient returned with a constant right esotropia with diplopia, measuring 25 prism diptres at near and distance. A 25 prism diptre Fresnel prism was fitted on planes. The angle following prism adaptation increased to 35 prism diptres for near and distance. BSV was present when wearing the prisms. The patient wore the prisms for 3 weeks before surgery, and showed no spontaneous recovery.

She underwent a right medial rectus recession of 4.5 mm and lateral rectus resection of 7 mm for the full prism adapted angle. Three months later the patient remains symptom free with a well controlled esotropia (6 prism diptres).

COMMENT
We describe two patients with acquired esotropia who responded in interesting ways to the presence of base out Fresnel prisms to promote a period of normal sensorial relations before planned surgical correction.

Preoperative prism adaptation has been shown to be a more successful method of treating acquired esotropia than conventional strabismus surgery.3,4 Case 1 regained fusion with prismatic correction, underwent surgery for the prism adapted angle, and has remained asymptomatic since. Patients with decompensated esotropia are ideally suited to this test as BSV can be restored after determining the most appropriate amount of strabismus surgery to perform.

Case 2 was the second symptom free following temporary prismatic correction of a large angle esotropia. The deviation spontaneously resolved with restoration of binocular vision and stereopsis. This uncommon response of such a large angle esodeviation to temporary prism wear has been described previously in two cases.5 Acute acquired concomitant esotropia and complete decompensated esophorias are uncommon types of esodeviation. We would suggest that such patients undergo prismatic correction before considering surgery. The patient then has the advantage of undergoing surgery based on preoperative prism adaptation or may regain binocular single vision without surgery.

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Case report
A 6-month-old boy presented with a 2 week history of a swollen left cheek and a 5 day history of a swollen and squinting left eye. There was no other significant medical or ophthalmic history of note. On examination, he had a marked left axial proptosis, with generalised swelling over his left cheek. There was no discrete palpable mass on the orbit nor were there any palpable lymph nodes. He had a left ptosis, complete ophthalmoplegia, and left relative afferent pupillary defect. Mild optic atrophy was evident. No other abnormalities were found on general examination.

Computed tomographic scan of the head (Fig 1) showed a large tumour involving the lateral wall and floor of the left orbit, extending into the infratemporal fossa invading the left antrum and nasal cavity. No intracranial extension was seen. Blood tests showed a raised serum α fetoprotein at 1345 units per litre (normal <10). Transnasal biopsy

Figure 1  Axial computed tomographic scan of the head showing a large tumour involving the lateral wall and floor of the orbit, extending into the infratemporal fossa invading the left antrum and nasal cavity.

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