LETTERS TO THE EDITOR

Sir,

We were particularly interested in the study by Woodruff *et al.*,[1] as we have been collecting data, including visual acuity, on all children discharged from the orthoptic department following active treatment since April 1991, with a view to detailed analysis at the end of a 5 year period.

At this point it is not possible to make a direct comparison of our results for strabismus patients with the published report, but the anisometropic amblyopic group (without deviation on cover test) can be separated without difficulty and may be of interest to readers.

In the period April 1991 to March 1994, 55 children were discharged in this category. At present children who did not attend for follow-up are included for 2 of the 3 years; the first year will be added retrospectively before full analysis. However, our clinical impression is that compliance is not a problem in this group as treatment is short term. Results in terms of visual acuity on linear testing for the amblyopic eye on discharge were: 4 patients 6/12, 13 patients 6/9 and 38 patients 6/6 or better, i.e. 93% achieved 6/9 or better. This compares with 60% in the Leicester study achieving 6/9 or better.

Woodruff *et al.* comment that results varied between centres and speculate on whether results from centres with earlier presentation relate to that fact or to better treatment. The mean age at presentation for the multicentre study was 5–6 years – much older than our group, 85% of whom presented before 4½ years owing to the orthoptic pre-school screening programme in this area.

These results would suggest that it is possible to achieve good results within existing resources.

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Reference

1. Woodruff G, Hiscox F, Thompson JR, Smith LK. Factors affecting the outcome of children treated for amblyopia. Eye 1994;8:627–31.

Sir,

We thank Mr Flanagan and Ms Beardsell for their comments on our paper 'Factors affecting the outcome of children treated for amblyopia'.

In our paper we expressed reservations about the reliability of comparisons made between centres as pre-treatment clinical details and methods of measuring the final visual acuity may not be comparable. We would be particularly cautious of comparing retrospective and prospective data, most especially if any patients are excluded from analysis because of failure to attend.

However, Flanagan and Beardsell's observations are of interest and are consistent with our findings that although a direct correlation between age and outcome could not be demonstrated, centres whose patients were younger at the start of treatment seemed to have better results.

There may have been substantial changes in the outcome of amblyopia treatment since the time of our study. For example we have in Leicester seen a reduction in the age of presentation of anisometropic amblyopia by 1.7 years and this has been associated with a significant improvement in outcome. However, more studies of the effect of early detection on outcome are needed.

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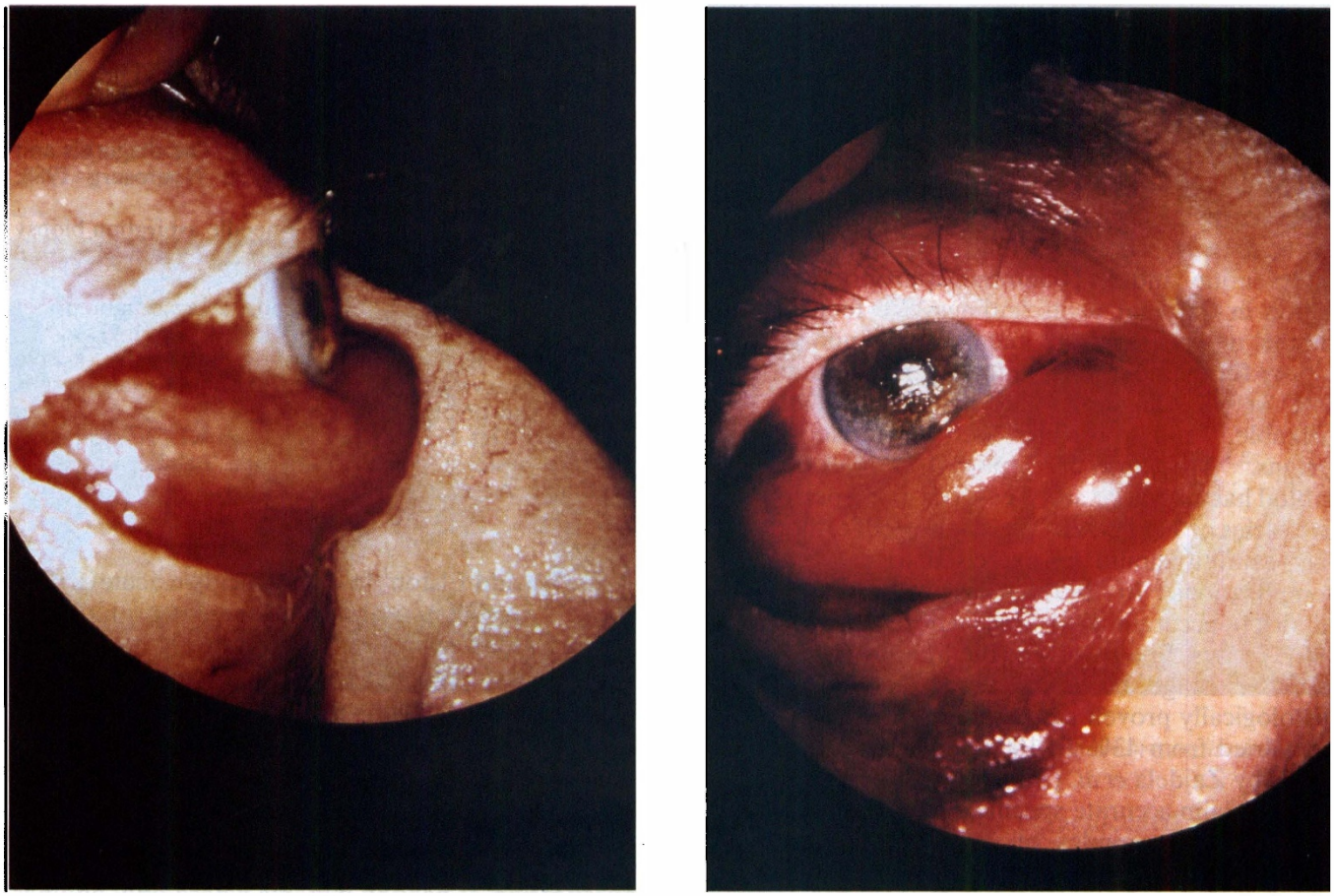
Sir,

We read with interest the report by Hugkulstone *et al.*[1] of transitional cell carcinoma of bladder metastatic to the orbit. We report a similar case with unilateral rapidly enlarging proptosis which was subsequently shown histologically on fine needle aspiration orbital biopsy to be anaplastic transitional cell carcinoma of the bladder.

Case Report

A 75-year-old man presented with a 36 hour history of right proptosis, diplopia and mild ocular discom-



(a) (b)

Fig. 1. *(a) and (b) Photographs of the proptosed right eye and orbital mass prior to orbital fine needle aspiration biopsy.*

fort. He had had resection of a bladder tumour (transitional cell carcinoma, stage T3) with subsequent radiotherapy 3 years previously. There was no history of thyroid disease or previous ophthalmic problem.

On examination, visual acuity was 6/6 in both eyes with no pupillary abnormality. There was an axial proptosis with inferior chemosis in the right eye. The periorbital skin was not erythematous, hot or tender. There was slight limitation of elevation and abduction. The globe was otherwise normal, with normal intraocular pressure. Systemic examination revealed one axillary lymph node, but neither cervical nor parotid lymphadenopathy. He was apyrexial.

An orbital CT scan was performed which showed an oval intraconal retrobulbar mass separate from the optic nerve. A metastatic tumour was suspected, but other pathology could not be excluded.

Three days after presentation, the patient suddenly became systemically unwell and complained of pain, reduced vision, and rapidly increasing proptosis (Fig. 1). His vision in the affected eye deteriorated to 6/24, with complete ophthalmoplegia and an afferent pupillary defect. The intraocular pressure became raised. Haematological investigation showed a raised white cell count (18.2×10^9/l, 90% neutrophilia); ESR 6 mm in the first hour [Westergren]; mild hypoproteinaemia and raised acute phase α_2 globulin on electrophoresis. Chest radiography showed mediastinal lymphadenopathy. Microbiological investigation of blood cultures, urine and conjunctival aspirate were negative; sinus radiography showed no bony destruction or invasion. Fine needle aspiration biopsy (FNAB) confirmed anaplastic transitional cell carcinoma of the bladder consistent with the primary tumour of the bladder and excluded the other possible diagnoses.

Despite the use of systemic high-dose steroids and antimicrobials, and topical measures to counteract exposure keratopathy, there was inexorable proptosis and loss of vision. With the result of the FNAB, the patient was referred for specialist hospice-based palliative treatment, retrobulbar alcohol injection and local deep X-ray therapy in addition to regular diamorphine to control pain. He died of widespread metastatic disease 13 days after presentation to our unit.

Comment

Our experience is in keeping with previous reports of rapid progression and poor prognosis of this rare orbital metastatic disease. Although we knew that the patient suffered from a bladder tumour, the difficulty of diagnosis lay in the exclusion of a

separate treatable pathological process, and this difficulty was compounded by the sudden progression of the proptosis and deterioration in his systemic condition which might have indicated infection or inflammation.

The diagnosis of metastatic tumour was confirmed, however, by cytological examination of FNAB taken in a patient who was unfit for more invasive intervention and it facilitated appropriate clinical action in the light of its findings. We feel that this simple, inexpensive, safe and relatively non-invasive biopsy for cytological examination has an important role in the diagnosis and management of such palpable, and possibly non-resectable orbital lesions.[2,3] Maroon *et al.*[4] reported 12 cases of minor orbital haemorrhage and 2 cases of globe perforation in a series of 175 FNAB. We acknowledge, therefore, that caution should be exercised to prevent these complications. In 1991, Glasgow and Layfield[5] reported accurate specific diagnoses of 10 of 15 (66%) cases. In a review of the literature, they cited that the range of accurate specific diagnoses in histologically proven cases reported by other workers varied from 43% to 100%, including the largest series by Zajdela *et al.* (249/286; 87%).[3] More recent reports claim accurate specific diagnosis in the range 81–97.1% (in samples of 26 or fewer).[2,6–8] It is suggested that this technique is optimal when performed with the combined participation of a cytologist and orbital surgeon; also that it may obviate the need for formal biopsy in a proportion of cases, and alter the clinical management of a larger proportion, when considered in conjunction with the full clinical history and the results of other investigations.[5]

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Sir,

Moorman and Elston[1] in their article on acute orbital myositis present a useful management protocol for patients with suspected orbital myositis. All patients in their study had a negative autoantibody screen and no patient developed systemic disease over the period of follow-up. They note that previous studies have shown an association between orbital myositis and autoimmune disease, but that orbital myositis was not the presenting feature of the condition.[2] They state 'there is no need for extensive systemic investigation of healthy patients whose only findings are compatible with a diagnosis of acute orbital myositis . . . further investigations are only indicated if the history or general examination suggest underlying pathology or if the CT scan appearances are not typical'. They conclude in the management protocol that an autoimmune screen only be performed 'if indicated'.

We wish to report a patient with classical orbital myositis clinically and radiographically, but who had strongly positive thyroid autoantibodies.

Case Report

A 33-year-old woman was referred to the neurologist from her general practitioner with a 2 week history of severe left periorbital pain. Initial ophthalmic and general examination was normal. A diagnosis of cluster headache was made and she was given a short course of systemic steroids with some improvement in the pain. She then, however, developed left periorbital soft tissue swelling, conjunctival injection over the lateral rectus insertion, slight proptosis and limitation of adduction of the eye. She was referred for formal ophthalmic assessment. A CT scan of the orbits showed isolated enlargement of the left lateral rectus muscle with thickening of both the tendon and the muscle belly compatible with acute orbital myositis (Fig. 1).[3] Thyroid function tests at presentation were within the normal range (thyroxine = 77 nmol/l [65–145 nmol/l], thyroid stimulating hor-