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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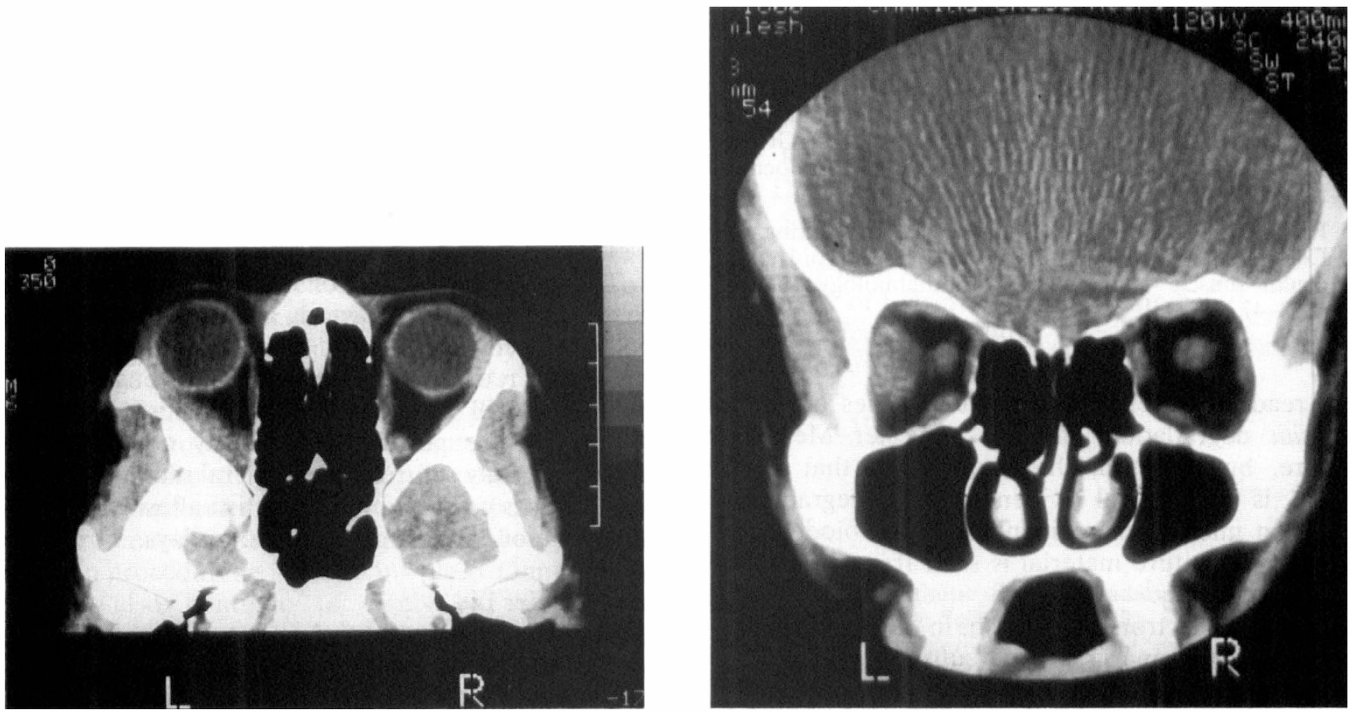
Sir,

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-



(a) (b)

Fig. 1. *Transverse (a) and coronal (b) orbital CT scans demonstrating isolated enlargement of the lateral rectus muscle with swelling of the muscle belly and the insertion.*

mone = 1.2 mU/l [0.2–4.0 mU/l], free tri-iodothyronine = 6.6 pmol/l [5.4–9.3 pmol/l]) but thyroid autoantibodies were strongly positive (thyroglobulin autoantibody titres 1 in 1600, thyroid microsomal autoantibody titres 1 in 25 600). She was prescribed 80 mg prednisolone per day with gradual tapering of the dosage resulting in rapid and complete resolution of her symptoms and signs.

Thyroid microsomal autoantibodies are mainly directed against the antigen thyroid peroxidase. Autoantibodies to a recombinant fragment of human thyroid peroxidase have been shown to be significantly more frequent and of a higher titre in Hashimoto's thyroiditis compared with Graves' disease.[4] Our patient had a very high titre of microsomal autoantibody and repeat thyroid function tests 6 weeks after presentation showed a reduction in thyroxine to just below the normal range at 64 nmol/l. She will need regular monitoring of her thyroid function as she is at risk of developing Hashimoto's thyroiditis requiring thyroid replacement therapy.

Discussion

The clinical presentation of this patient with severe periorbital pain and a rapid response to steroids, together with the CT scan appearance of the extraocular muscles, suggest a diagnosis of orbital myositis. There are no pathognomonic radiographic findings, however, to distinguish between thyroid eye disease and orbital myositis, as an overlap of signs may be seen in these two groups.[5] Thyroid eye disease may infrequently be associated with Hashimoto's thyroiditis and it is possible that this patient may develop more classical thyroid eye disease in the future.

This patient has, at present, a clinical diagnosis of orbital myositis, but routine autoantibody testing has shown a thyroid autoimmune disorder that requires regular review. We agree with Moorman and Elston that extensive investigation of patients whose only findings are compatible with orbital myositis is unrewarding, but do suggest that an autoimmune screen, including thyroid autoantibodies, be routinely performed on all patients presenting with this condition.

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Sir,

We read with interest King and colleagues' article on *in situ* degradation of 11–0 polyester Mersilene suture, but question their conclusion that whilst there is no clinical evidence of biodegradation, electron microscopic evidence of slow biodegradation of the suture material is seen from 22 months post-operatively.[1]

Both the electron micrographs in their article show circumferential marks on the suture material adjacent to the knot, from buried sites, that should therefore be least subject to biodegradation. Clinically evident biodegradation of nylon corneal sutures occurs mostly on the surface of the globe. What do these marks represent?

It is likely that these are compression marks due to sharp angulation of suture materials adjacent to knots. These marks are present immediately after knot-tying using Mersilene material, but not nylon. Fig. 1 shows a 2/1/1 reef knot tied with 10–0 Mersilene removed immediately after tying and turning on a porcine corneal cataract section. Compression marks occur where the suture material has to turn sharply.

Mersilene corneal sutures are undoubtedly much safer to leave unremoved compared with nylon ones,[2] but King's data confirm that even Mersilene may not be safe if left unremoved. Eighteen sets of sutures in 231 eyes (7.8%) had become loose prior to discharge from clinic, necessitating removal (follow-up 2–20 months). In addition, of 107 eyes of patients invited for examination, 7 sutures (6.5%) had to be removed because of loosening. Six of the 7 eyes (85.7%) were asymptomatic, which is comforting to the patient, but provides less warning that they are at risk of infective keratitis. Data on infection would be welcome.

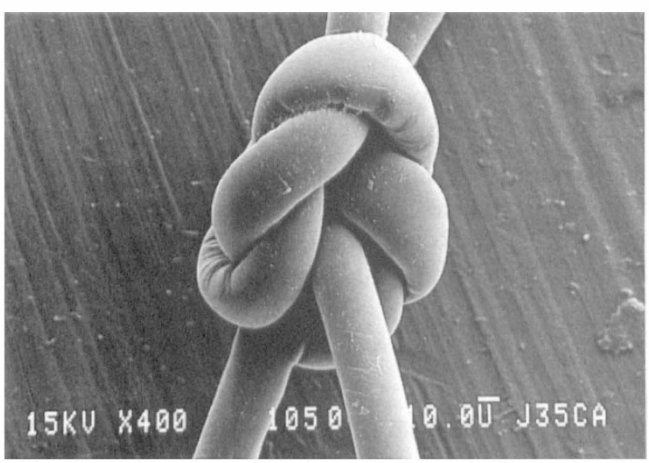

Fig. 1. *Electron micrograph of a 2/1/1 reef knot tied with 10-0 Mersilene removed immediately after tying and turning on a porcine corneal cataract section. Compression marks occur where the suture material has to turn sharply.*

The natural history of extracapsular cataract extraction is a trend towards against-the-rule surgically induced astigmatism,[3] which may be enhanced by early removal of sutures. The longevity of Mersilene will allow *later* removal of sutures, but this should be performed routinely none-the-less. Currently, only sutureless and scleral section surgery with sutures covered by conjunctiva allow early safe discharge of cataract patients within days.

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Sir,

We are pleased to have the opportunity to clarify some of the points raised by Liu and colleagues in their letter. We agree that compression marks occur immediately on tying Mersilene (polyester) sutures as demonstrated by their electron micrograph. However, our comments in the original article were directed at the grooves highlighted in the magnified image. These show lamination of the suture structure rather than compression in the inferior limb leaving the knot and are distinct from the compression grooves. This form of surface change has been reported by other authors, notably Dvorak,[1] who describes surface degradation with lamination of polyester sutures left in dog muscle for 210 days. He found, as we also did, that these changes were more common around areas of mechanical stress and