The occurrence of various clinical forms of corneal ectasiae in the same patient may reflect the same pathophysiological process in different forms of corneal ectasiae. These processes may occur in different locations in the corneas, thereby causing different patterns of corneal protrusion. Keratoconic corneas demonstrated increased activity of collagenase[6,7] and gelatinase.[8,9] They exhibit higher levels of lysosomal enzymes – acid phosphatase, acid esterase and acid lipase – compared with normal corneas.[10] The increased activity of these enzymes may result in decreased levels of α1-proteinase inhibitor[11] and α2-macroglobulin, a major proteinase inhibitor.[12] The surgical trauma to the left eye in our patient may have induced some inflammation, which might have triggered such activities, causing thinning of the upper corneal periphery in conjunction with thinning of the lower periphery. Our case and the others suggest that local factors are involved in the development of corneal ectasiae and may change the predetermined course of specific ectasia pattern. Anterior segment surgery such as cataract extraction may induce long-term unpredictable effects on such corneas. The late changes after cataract surgery differ from the acute changes that may occur during corneal refractive surgeries such as laser assisted in-situ keratomileusis and automated lamellar keratomileusis, in which corneal thinning is the cause of protrusion.

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Sir,

Benign schwannoma simulating a ciliary body melanoma

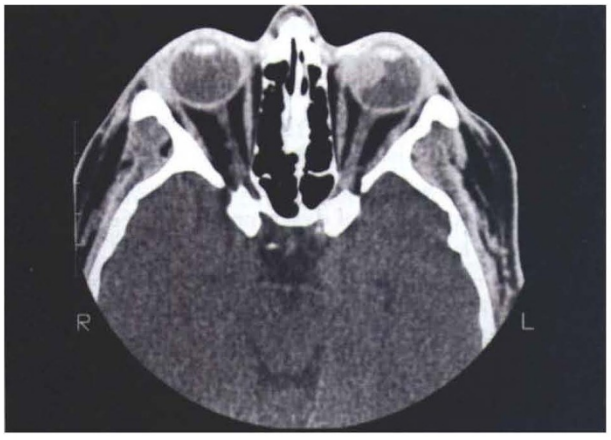
Neurogenic tumours of the uveal tract share with melanomas some biological and clinical characteristics such as a common origin from the neural crest and positivity for protein S-100 as a tumour marker, but they are rarer.[1] A neurilemmoma, or schwannoma, is a neoplastic proliferation of Schwann cells; histologically, spindled Schwann nuclei show a tendency towards palisading. When the texture is compact and composed of interwoven bundles of long bipolar spindle cells, frequently with ribbons of palisading cells alternating with relatively acellular areas, the Antoni type A pattern is present. Areas of the tumour may mimic tactile corpuscles and are called Verocay bodies. Alternatively the tumour may have a haphazard arrangement, a loose texture and microcystoid areas of necrosis; this type of degeneration pattern is called the Antoni type B pattern.[2] To our knowledge only six of these tumours have been described as arising from the ciliary body.[3,4] In the clinical differential diagnosis of ciliary growths, apart from malignant melanomas, the following conditions arise: iris nevus, neuroepithelial tumours, leiomyoma, neurofibroma, cysts, foreign body granuloma, metastases, acquired staphylomas.

Case report

We report the case of a 28-year-old Caucasian woman in the third trimester of her pregnancy. She was referred from her optician for visual disturbances occurring in her left eye in the previous few weeks. Her general health was good and there was no family history of ocular or systemic disease; best corrected visual acuity was 6/4 in the right eye and 6/18 in the left eye.

She complained about the loss of the left temporal field of vision. This was the result of a spherical growth visible behind the lens on the medial side of the ciliary body. Ectatic scleral vessels and signs of iris atrophy were apparent in the same sector; the anterior chamber was quiet. The tumour did transilluminate but appeared as a solid mass on both ultrasound and CT scan (Fig. 1, above). Intraocular pressures were within normal limits and the examination of the fellow eye was unremarkable.

To prevent complications for the fetus, which was almost at the end of gestation, a caesarean delivery was carried out on the assumption of an achromic malignant melanoma. She was offered excisional biopsy in a specialist centre, possibly followed by radiotherapy and/or treatment with argon laser as an alternative to enucleation. As she opted for the latter, a liver ultrasound scan and chest radiograph were performed, which did not



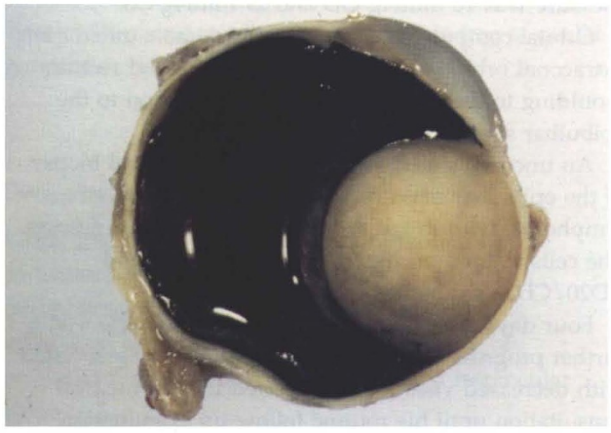


Fig. 1. *Above: Orbital CAT scan (axial section). A retrolental growth is clearly evident in the left eye. Below: Gross specimen after fixation. The solid nature of the mass is visible in section.*

show metatastic dissemination. A meticulous enucleation was carried out with an implant of hydroxyapatite coral prosthesis enveloped in donor sclera.

Macroscopic examination of the excised eye showed an encapsulated tumour of greyish appearance indenting the lens and a serous retinal detachment extending as far back as the optic disc (Fig. 1, below).

Microscopic examination proved that the tumour was a neurilemmoma with the characteristic pattern described by Antoni. It probably took origin from Schwann cells associated with the ciliary nerves and was histologically benign (Fig. 2).

Comment

Although the benignity of the tumour does not contraindicate enucleation in order to avoid progression to a painful blind eye, in this case enucleation was carried out in view of a possible malignant melanoma. It is known that this type of tumour may undergo accelerated growth during pregnancy and ciliary body melanomas have also been described as evolving in this way. Besides, at times they do transilluminate. Therefore, in this case the assumption of a melanoma until proven otherwise was mandatory. Even in the presence of a fine needle biopsy positive for schwannoma, the malignant potential of this tumour cannot be assessed without histological sections and the rate of growth as measured

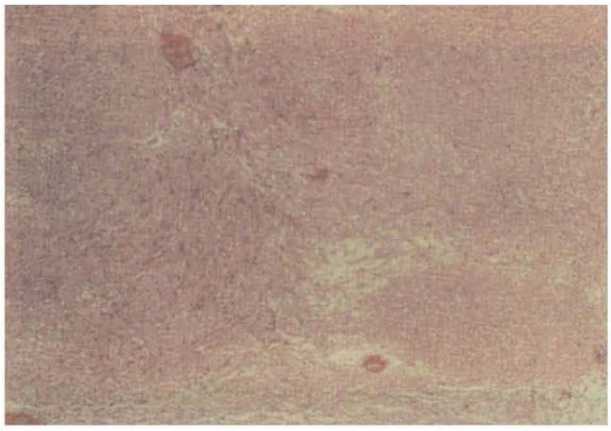


Fig. 2. *Haematoxylin–eosin section (×100). Interwoven bundles of bipolar cells, characteristic of schwannoma, are seen.*

by incorporation of radioactive phosphorus is not greatly different from that of a malignant melanoma.

In conclusion it seems that this condition will continue to be recognised retrospectively and treated as something different until a reliable diagnostic test is available.

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Sir,

Central retinal artery occlusion due to rapidly expanding orbital lymphoma

The presentation of lymphoproliferative disorders affecting the orbit is usually insidious and painless.[1] The common manifestations are proptosis, blepharoptosis, diplopia, limited ocular motility and rarely decreased visual acuity. To our knowledge, this is the first report of a rapidly progressive orbital lymphoma resulting in an