Sir,
Primary B-cell lymphoma of the ciliary body with 360° ('ring'-like) growth pattern

There are few reports of anterior uveal non-Hodgkin lymphomas (NHL), which mainly involve the iris.[1–5] Uveal lymphomas affecting almost exclusively the ciliary body (CB) are extremely rare. We describe a case of B-NHL with 360° infiltration of the CB without significant iris or choroidal involvement. To our knowledge, such a case of CB lymphoma with a 'ring-like' pattern mimicking a melanoma has not been described previously.

Case report

An asymptomatic 76-year-old man was referred to our hospital with a suspected amelanotic melanoma of the CB of the right eye after a routine eye check-up. Vision was 6/12 in the affected eye and 6/6 in the fellow eye.

Anterior segment examination of the right eye revealed the presence of a small hyphema with raised intraocular pressure (IOP: 31 mm Hg) (Figure 1a). Gonioscopy showed a closed angle inferiorly without any evidence of iris neovascularization. Fundus examination showed a few scattered retinal haemorrhages associated with white chorioretinal infiltrates. Ultrasound showed 360° infiltration of the CB with acoustic solidity but low internal reflectivity (Figure 1b). The tumour had a maximum thickness of 1.5 mm and antero-posterior diameter of 1.3 mm. Examination of the fellow eye was unremarkable and IOP was within normal limits.

CB biopsy was performed through a limited cyclectomy at the thickest tumour area at 6 o'clock that was measuring 1.5 mm on U/S. Limited cyclectomy

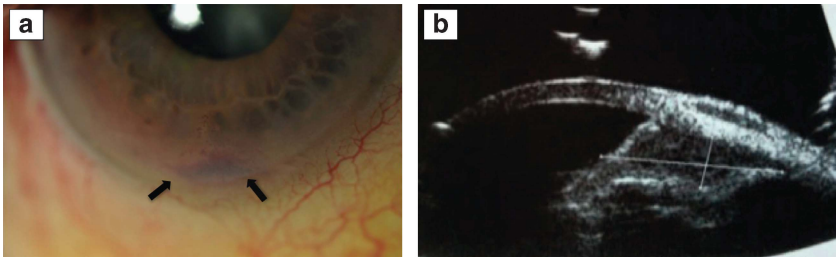

Figure 1 An otherwise healthy 76-year-old man with 2-year history of blurred vision and increased intraocular pressure in the right eye. (a) Anterior segment photograph shows a small hyphema (arrowheads) without visible tumour. (b) B-scan ultrasonography reveals 360° infiltration of the ciliary body with acoustic solidity but low internal reflectivity.

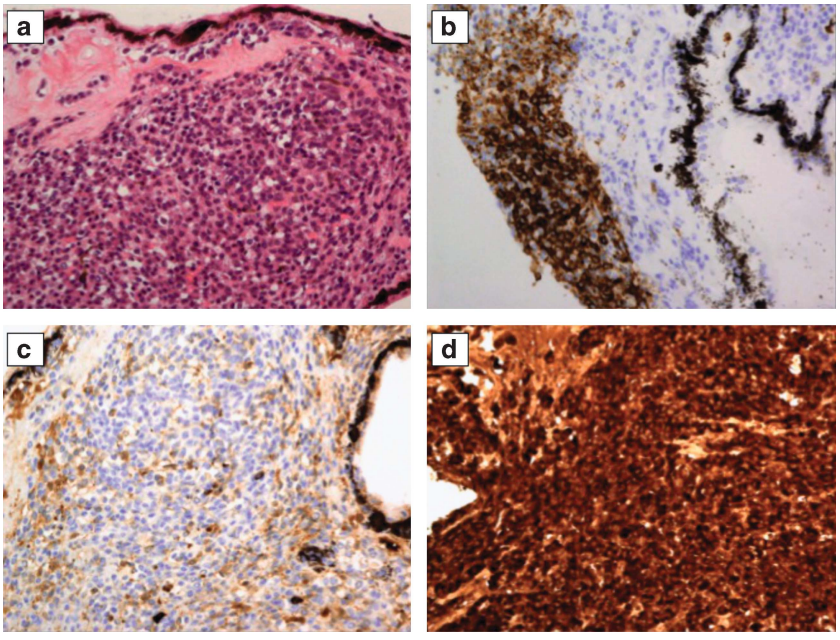

Figure 2 Histopathological examination was performed on a trans-scleral incisional biopsy specimen of the ciliary body tumour. (a) Hematoxylin–eosin-stained section showing a diffuse infiltrate of small plasma cells and lymphocytes. (b) Immunohistochemical stain for CD20 showing that the infiltrate consists predominantly of B cells. (c, d) Immunohistochemical stain for immunoglobulin light chains showing monotypical expression for kappa; monoclonality was confirmed using IgKappa-PCR. Taken together these features are consistent with extranodal marginal zone B-cell lymphoma of the ciliary body.

was chosen instead of fine needle aspiration biopsy to assure an adequate tissue sample for histologic evaluation.

The histological and immunohistological features disclosed an extranodal marginal zone B-cell lymphoma (Figure 2). This diagnosis was confirmed using PCR for both the heavy and light immunoglobulin chains.

Staging investigations—for example, brain MRI, CT chest, abdomen, iliac crest, and spinal tap—were negative for malignancy. The patient received a low dose external beam radiotherapy (EBR) to the right eye over 12 days. On review 3 months later, the tumour had regressed completely. At the 6-months follow-up, there were no signs of tumour, while the visual acuity of the affected eye was 6/48 as the result of a moderate cataract.

Comment

The majority of reported cases of B-cell uveal NHL were either mainly choroidal or iridal tumours, with secondary involvement of the CB.[1] In 2004, Ahmed *et al*[1] reported a case of 360° iris-CB B-cell lymphoma masquerading as post-cataract uveitis. However, there was significant involvement of the iris, which would actually suggest that the iris was the primary site of the tumour. In 2012, Mashayekhi *et al*[2] reported three cases of primary iris-CB B-cell lymphoma. One case had significant choroidal involvement, whereas in the other two cases histological analysis revealed a high-grade large B-cell NHL, in contrast to the tumour in our patient.

In conclusion, the differential diagnosis of a CB tumour should include lymphoma even in the absence of significant iris and/or choroidal involvement. Ultrasound shows low acoustic reflectivity. Biopsy with histomorphological examination is necessary to establish the diagnosis. EBR may induce rapid and complete regression.

Conflict of interest

The authors declare no conflict of interest.

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L Konstantinidis[1], M Angi[2], SE Coupland[2] and B Damato[3]

[1]Liverpool Ocular Oncology Centre, Royal Liverpool University Hospital, Liverpool, UK
[2]Department of Molecular and Clinical Cancer Medicine, University of Liverpool, Liverpool, UK
[3]Ocular Oncology Service, University of California, San Francisco, CA, USA
E-mail: DamatoB@Vision.UCSF.edu

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Sir,

Enhanced depth imaging as an adjunctive tool in the diagnosis of decalcified choroidal osteoma

Choroidal osteoma is a rare benign osseous tumor of the choroid, typically affecting healthy eyes of young female subjects.[1] It is a clinical diagnosis, classically confirmed by the presence of high reflectivity and acoustic shadowing on B-scan ultrasonography (B-scan) and/or hyperdense plaques at the level of the choroid on computerized tomography scan.[1] Here we report a case of a predominantly decalcified choroidal osteoma and the use of enhanced depth imaging optical coherence tomography (EDI-OCT) to confirm the diagnosis.

Case report

A 16-year-old girl presented with a 1 year history of flashing lights in her right eye associated with a yellow-white lesion in the superior juxtapapillary region (Figure 1). B-scan of the lesion showed nonspecific, mild choroidal thickening with no hyper-reflective areas or posterior shadowing (Figure 2). EDI-OCT revealed a small area of subretinal fluid superior to the optic nerve and a discrete choroidal mass measuring 387 μm in thickness, with variable intrinsic reflectivity adjacent to areas of

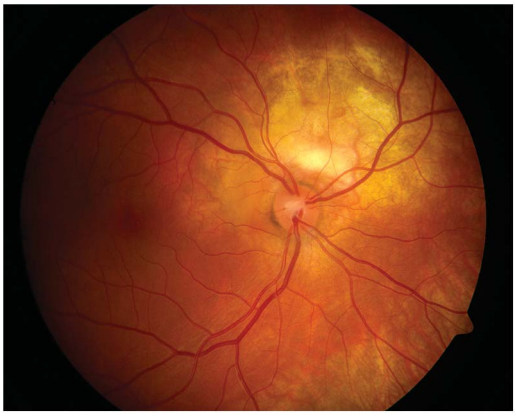

Figure 1 Right fundus photograph showing large superior juxtapapillary choroidal lesion.