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Sir,
**Photodynamic therapy for solitary retinal metastasis
from breast carcinoma**

Although metastasis to the uveal tract is relatively common, metastasis to the retina is extremely rare. We report a case of symptomatic, solitary retinal metastasis in a patient with breast carcinoma treated with photodynamic therapy.

Case report

A 55-year-old female was referred to the Ocular Oncology clinic at the Royal Hallamshire Hospital, Sheffield in June 2005 with an unusual lesion affecting her right eye. Her only complaint was of metamorphopsia in that eye and at presentation her Snellen acuity was 6/4 bilaterally. Anterior segment examination and intraocular pressures were normal. The left fundus was entirely normal. Fundus examination of the right eye showed a discrete, white retinal lesion temporal to the fovea (Figure 1a). The lesion appeared vascular and this was confirmed on fluorescein angiography (Figure 1b). Ultrasonography revealed the lesion to have a maximum thickness of 1.6 mm. An accurate assessment of the internal reflectivity was not possible owing to the small height of the lesion.

The patient's past medical history was significant for breast carcinoma treated by lumpectomy in 1996 followed by mastectomy 2 years later. She had received adjuvant Tamoxifen for 3 years, however, this had been stopped for the last two years. In May 2005 CT scanning had revealed multiple pulmonary lesions consistent with metastases and she had been commenced on Anastrozole (Arimidex, AstraZeneca) 1 mg daily.

A diagnosis of solitary retinal metastasis was made and various treatment options were discussed. These included observation, fractionated radiotherapy, ruthenium plaque brachytherapy, transpupillary thermotherapy (TTT), or photodynamic therapy (PDT). The patient was concerned about the use of radiotherapy and the need for regional anaesthesia with TTT and wished to consider PDT. The rationale behind offering PDT was that the lesion was vascular, well-circumscribed and solitary. The risks and benefits of this novel treatment were explained and the patient consented to treatment with PDT using the standard TAP protocol.¹ A single 83 s application was used of 5.2 mm spot-size, delivering 600 mW/cm². There were no immediate complications.

At review, 8 weeks later, the patient reported that her symptoms had resolved and visual acuity was recorded as 6/5. Funduscopy showed the lesion to have regressed with minimal surface scarring and resolution of the associated subretinal fluid (Figure 1c). No other new metastases were detectable.

Comment

Breast carcinoma is the commonest primary tumour giving rise to ocular metastases.² Metastases to the ocular tissues are relatively common but almost always affect the choroid. Retinal metastases have been described but are extremely rare and few reports deal with more than

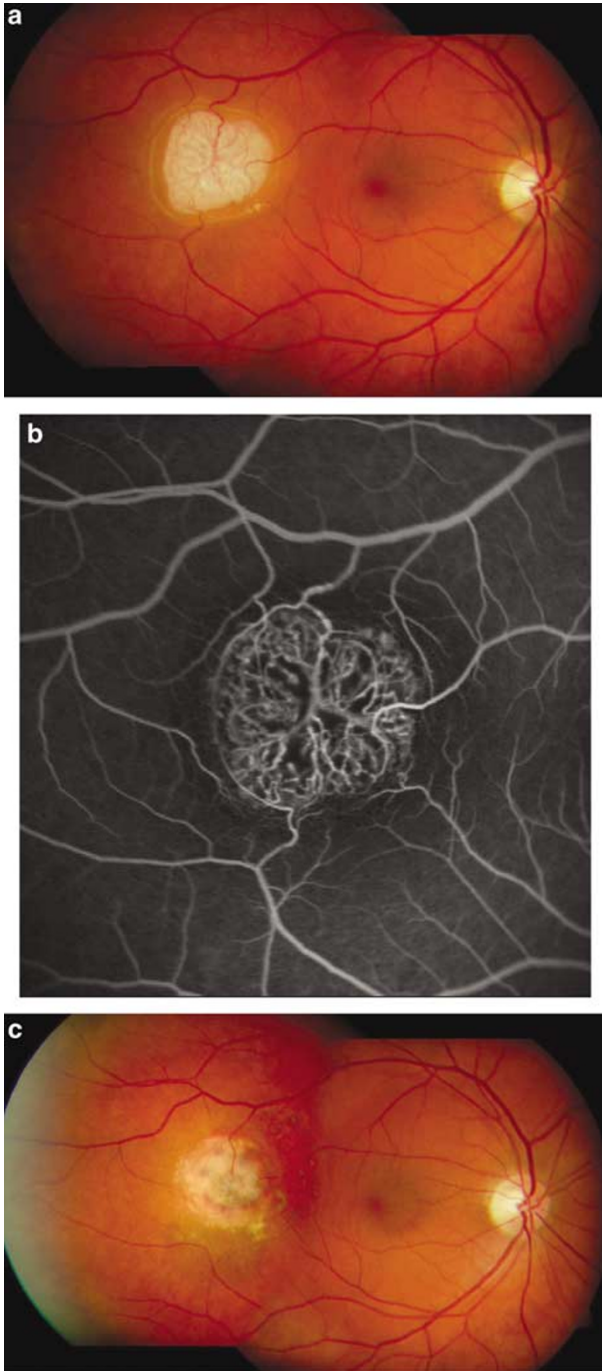


Figure 1 Fundus photograph of the right eye showing the vascular retinal lesion temporal to the fovea before PDT (a); angiographic appearances before PDT (b); and fundal appearance post PDT showing complete regression (c).

case.^{3,4} For that reason the most effective treatment is unclear and any discussion of therapy usually concerns the treatment of choroidal rather than retinal lesions. The treatment of ocular metastases depends on the number and laterality of the lesions, visual acuity, and general health of the eye, systemic status and life prognosis.

Often, uveal metastases are an indicator of disseminated disease and carry a grave prognosis so that the aim of treatment may be to merely preserve vision for the remaining life-span of the patient. For that reason fractionated radiotherapy, continued over 2 or 3 weeks may be rejected by a terminally ill patient, despite its efficacy as a treatment. For focal choroidal lesions (ICG augmented) transpupillary thermotherapy performed under a regional (retrobulbar or sub-Tenons) anaesthetic has been advocated with some success.⁵ Similarly, in June 2005 Manquez *et al* reported a case of a solitary choroidal metastasis arising from breast carcinoma that slowly regressed on Anastrozole therapy alone.⁶

The authors are aware of a single case of choroidal metastasis refractory to treatment with radiotherapy and chemotherapy that was successfully managed with photodynamic therapy.⁷ Photodynamic therapy has also been used by a number of groups for the treatment of circumscribed choroidal haemangiomas^{8,9} and is probably the standard treatment for these lesions at the present time. Although the mechanism of action is unclear the vascularity of choroidal haemangiomas makes them an ideal candidate for photodynamic therapy, which is associated with little post-treatment scarring. For this reason PDT was considered a potential treatment for the case described. The lesion was intensely vascular, well circumscribed and located away from vital structures. As often occurs with choroidal haemangiomas the lesion regressed rapidly with resolution of the associated subretinal fluid and improvement in visual acuity. Although the length of follow-up is short and the long-term prognosis for this patient unclear, we see no reason why further PDT could not be offered should the need arise nor does the use of PDT preclude other treatments such as radiotherapy. In conclusion, PDT proved useful in the treatment of this rare case of retinal metastasis and may possibly have a useful role in the treatment of other solitary choroidal metastases.

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Sir,

Comment on ‘smoking delays the response to treatment in episcleritis and scleritis’

We read with interest the recent paper by Boonman *et al*,¹ which reported a delay in response to treatment of scleritis in smokers compared with that in non-smokers. The authors postulated pharmacological and immunological reasons that may explain this. One explanation that they did not address is different rates of treatment compliance between the two groups.

This is an important consideration as smoking has been shown to be a predictor of poor compliance with treatment in a diverse range of conditions including acne,² renal failure,³ epilepsy,⁴ and hyperlipidaemia.⁵

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Sir,

Response to N Ali

Compliance with treatment was not formally recorded in this study but failure to take the treatment prescribed is very unusual as scleritis is such a painful and distressing condition.

Compliance was recorded in the ‘Double Blind Trial of the Treatment of Episcleritis-Scleritis with Oxyphenbutazone or Prednisolone’ *Br J Ophthalmol*: 1966; **50**: 463–481. In this trial only six of 59 patients failed to complete the full course of treatment for reasons other than drug reactions but, unfortunately, smoking was not included as a risk factor in this trial. However, as the treatment regimes are similar to those used in the present paper the documented poor compliance of smokers would not have altered the observation that smoking/delays/the response to treatment.

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