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Sir,
Photodynamic therapy (PDT) using verteporfin for juxtafoveal choroidal neovascularisation (CNV) in angioid streaks (AS) associated with pseudoxanthoma elasticum: 40 months results

Case report

A 55-year-old engineer with pseudoxanthoma elasticum developed angioid streaks (AS)-associated classic juxtafoveal choroidal neovascularisation (CNV) in his *right* eye (Figure 1a). His BCVA was 6/24 in his *right* eye (55 letters on ETDRS chart including added 15 letters, contrast sensitivity:1.05) and 6/60 in his *left* eye due to disciform macular scar. Photodynamic therapy (PDT) with Verteporfin as per the TAP criteria¹ was performed. No adverse effect was noted during or after treatment.

He underwent seven further PDT treatments over the following 40 months. At the most recent visit, his BCVA remains stable at 58 letters and contrast sensitivity at 1.45 (Figure 1b). Details are summarised in Table 1, Figure 2a and b.

Comment

AS are associated with a diverse group of conditions including pseudoxanthoma elasticum (PXE). Eyes with

PXE-related AS may be complicated by CNV and subsequent serous or haemorrhagic retinal detachment.² CNV accounts for the majority of severe visual impairment

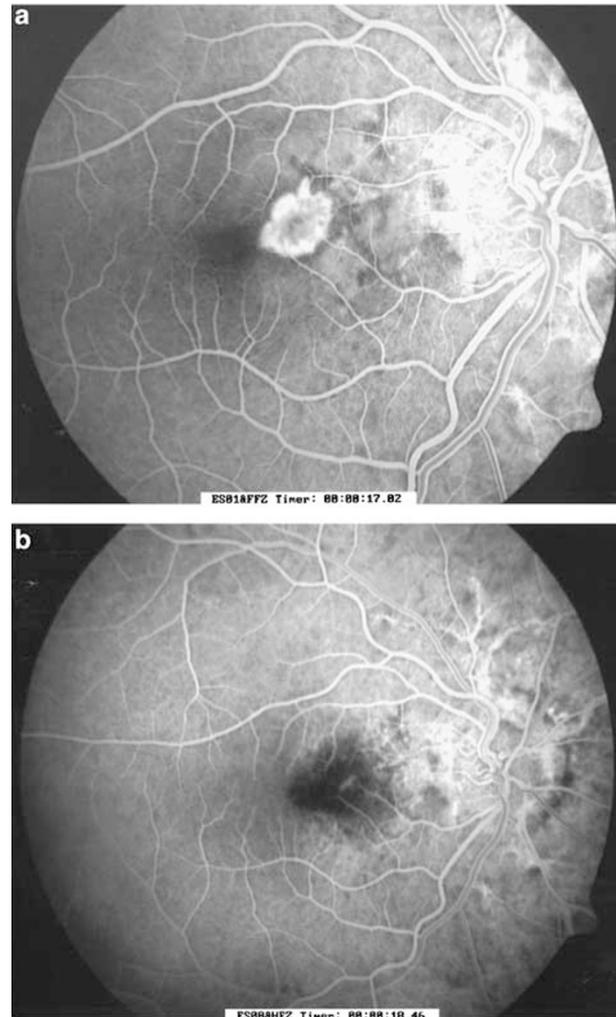


Figure 1 (a) Pre-PDT: early phase of fundus fluorescein angiogram (OD) showing classic juxtafoveal CNV associated with AS. (b) Post-PDT: early phase of fundus fluorescein angiogram of the same eye showing absence of leakage 2 weeks after initial PDT treatment.

Table 1 Summary of visual acuity, contrast sensitivity, number of PDT treatments, and size of treated area over 40 months

Follow-up (months)	0	3	6	9	12	15	18	21	24	27	30	33	36	40
VA: number of letters read on ETDRS chart (at 2 m)	55	59	43	56	56	62	64	64	55	58	58	57	63	58
Contrast sensitivity	1.05	1.15	0.90	0.95	0.95	1.40	1.40	1.50	1.50	1.50	1.50	1.50	1.45	1.45
PDT treatment (Y-Yes, N-No)	Y	Y	Y	Y	N	Y	N	Y	Y	N	Y	N	N	N
Greatest Linear Diameter -GLD (μ m)	2400	2400	2650	2300	—	2500	—	3100	3200	—	3200	—	—	—

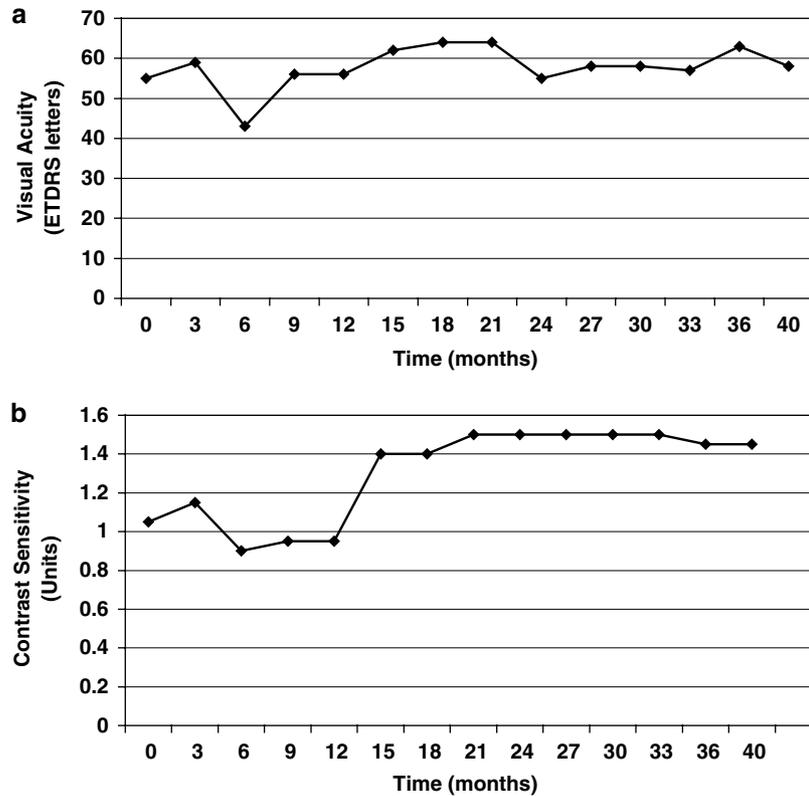


Figure 2 (a) Graph of visual acuity (ETDRS letters) against time (months). (b) Graph of contrast sensitivity (units) against time (months).

among these patients. Laser photocoagulation has been used to treat subfoveal CNV of AS with good early results,³ but the results for those with juxtafoveal or subfoveal lesions tend to be disappointing because of large reduction in visual acuity and high recurrence.⁴

Verteporfin, a photosensitising drug,⁵ was shown to safely reduce the risk of moderate to severe visual loss in predominantly classic subfoveal CNV from age-related macular degeneration in the TAP study.¹ However, its role in treatment of AS-related CNV remains unclear. In their series, Menchini *et al*⁶ showed that two out of three AS-associated juxtafoveal CNV had progressed to subfoveal lesions at the final followup (range: 10–36 months). At no point did our patient's CNV developed into a subfoveal lesion. To our best knowledge, this case has the longest followup result showing stable BCVA and contrast sensitivity.

AS-related CNV commonly affects younger patients as opposed to ARMD. Such patients are at risk of legal blindness in their working lives. Any treatment that can help to prevent visual loss during these productive years has vast beneficial effects on the individual and the society—visual, functional, psychological and financial.

We suggest PDT should be considered in sight-threatening CNV secondary to AS.

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