

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

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Comment on: Clinical outcomes in Caucasian patients with polypoidal choroidal vasculopathy

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We have read the recent article from Agorogiannis et al. [1] reporting real world data from the treatment of polypoidal choroidal vasculopathy (PCV) in a Caucasian cohort with great interest. As described, there is a paucity of data from Caucasian individuals to inform the management of PCV, and so we aim to augment their informative dataset with longer follow-up and a greater representation of verteporfin photodynamic therapy (PDT) (Table 1).

Mean (SD) gain in ETDRS letters at one, two, three and four years was 0.8 (17.2), −1.6 (21.7), −1.6 (24.1) and −8.5 (29.7), respectively. Central foveal thickness (CFT) also improved at those timepoints by 68.0 µm (204.9), 96.7 µm (124.9), 83.5 µm (153.2) and 128.6 µm (142.6). Although the mean acuity gained from PDT monotherapy was greater than from the combination of PDT and anti-vascular endothelial growth factor (anti-VEGF) treatment at

Table 1 Demographics and descriptors of 29 eyes from Caucasian patients undergoing treatment for polypoidal choroidal vasculopathy who were subsequently followed up for 6 months or more

Gender	Female (%)	18 (62.1)
	Male (%)	11 (37.9)
Laterality	Left (%)	15 (51.7)
	Right (%)	14 (48.3)
Location	Macular (%)	4 (13.8)
	Peripapillary (%)	22 (75.9)
	Peripheral (%)	3 (10.3)
Follow-up from treatment initiation (months)	% at 1 year	86.2
	% at 2 years	72.4
	% at 3 years	51.7
	% at 4 years	31
Final follow-up status	Under follow-up (%)	21 (72.4)
	Discharged (%)	6 (20.7)
	Lost to follow-up (%)	1 (3.4)
	Deceased (%)	1 (3.4)
Treatment received	Anti-VEGF IVIs (%)	3 (10.3)
	PDT (%)	12 (41.4)
	Both (%)	14 (48.3)
Initial visual acuity	Mean ETDRS letters (SD)	66.7 (14.3)
Initial central foveal thickness	Mean µm (SD)	332.3 (68)

SD standard deviation, VEGF vascular endothelial growth factor, PDT photodynamic therapy, IVI intravitreal injection.

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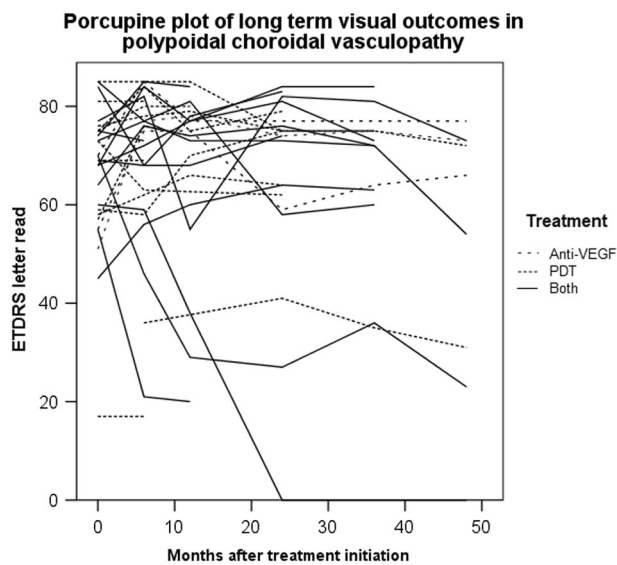


Fig. 1 Porcupine plot showing 48-month visual outcomes in 29 eyes with polypoidal choroidal vasculopathy receiving Anti-VEGF intravitreal injections, PDT or both. *VEGF* vascular endothelial growth factor, *PDT* photodynamic therapy, *ETDRS* early treatment of diabetic retinopathy study

each timepoint, improvement in CFT was consistently poorer. However, neither of these differences were statistically significant. Nine of the 14 participants receiving combination treatment started with PDT and so the subsequent addition of anti-VEGF likely reflected refractory disease, thereby biasing inter-group comparisons. This bias is demonstrated by Fig. 1 where more dramatic visual decline is experienced by combination treatment recipients.

PDT monotherapy led to significantly fewer treatment episodes than combination therapy at every timepoint ($P < 0.01$ from 6 to 36 months). At 3 years the mean (SD) number of treatment episodes with PDT was 1.8 (1.0) compared to 9.0 (4.4) for combination treatment.

The present series demonstrates visual stability up to 48 months and mean acuity gains (6.3 ETDRS letters at 12 months) from PDT monotherapy comparable to combination treatment outcomes in clinical trials and anti-VEGF monotherapy reported by Agorogiannis et al. ($n = 24$) [1, 2]. It also emphasises the significantly lower treatment burden experienced by patients in the real world setting if the addition of anti-VEGF is not required. These retrospective data must be balanced against the superior visual outcomes from combination treatment in randomised clinical trials in Asian populations [2]. However, with considered case selection and monitoring, we also feel that PDT monotherapy remains a valuable initial treatment option to minimise treatment burden in PCV [1].

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Statements on ethics Approval for maintenance and analysis of this pseudonymised retrospective dataset was sought from the local Caldicott guardian.

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