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One-year Outcomes of Anti-vascular Endothelial Growth Factor Therapy in Peripapillary Choroidal Neovascularisation

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Purpose:
To report the visual and anatomical outcomes in eyes with peripapillary choroidal neovascularisation (CNV) through 12 months.

Methods:
This was a multicentre, retrospective, interventional case series which included treatment-naïve cases of peripapillary choroidal neovascular (CNV) with a minimum follow-up of 12 months. Multimodal imaging which comprised optical coherence tomography (OCT), fluorescein angiography and/or indocyanine green angiography was performed at baseline and follow-up visits. OCT parameters included central macular thickness (CMT), subfoveal choroidal thickness (SFCT) and retinal and choroidal thickness at site of CNV. Patients were treated with anti-vascular endothelial growth factors (VEGF) on pro re nata protocol, photodynamic therapy, laser photocoagulation or a combination. Main outcome measures were change in best corrected visual acuity (BCVA) and OCT parameters.

Results:
A total of 77 eyes (74 patients; mean age: 61.9±21.8 years) with a mean disease duration of 9.2±14.1 months were included. BCVA improved significantly from 0.55±0.54 logMAR (20/70) at baseline to 0.29±0.39 logMAR (20/40) at 12 months (p<0.001) with a mean of 4.9±2.9 anti-VEGF injections. CMT, SFCT and retinal thickness at site of CNV reduced significantly (p<0.001, <0.001 and 0.02, respectively) through 12 months. The most common disease aetiologies were neovascular age-related macular degeneration, and idiopathic, inflammatory and angioid streaks. Age (p=0.04) and baseline BCVA (p<0.001) were significant predictors of change in BCVA at 12 months.

Conclusions:
Peripapillary CNV, though uncommon, is associated with diverse aetiologies. Anti-VEGF agents lead to significant visual acuity and anatomical improvement in these eyes over long term irrespective of the aetiology.