

**OPTIC DENSITY RATIO OF SUB RETINAL PIGMENT EPITHELIUM FLUID IS ASSOCIATED WITH IMPROVEMENT OF BCVA AFTER 12 AND 36 MONTHS OF FOLLOW UP**

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**PURPOSE:** The purpose of this study was to investigate the prognostic significance of optical density ratio (ODR) on best corrected visual acuity (BCVA) in patients with treatment-naive neovascular age-related macular degeneration (nAMD) treated with anti-vascular endothelial growth factor (VEGF) agents.

**METHODS:** This study was a retrospective review of clinical records from January 2011 to November 2020. The study included consecutive patients with nAMD, treated with at least three anti-VEGF injections, macular optical coherence tomography (OCT) images before and after treatment, and at least 12 months of follow-up. Exclusion criteria included myopia, visual impairment due to ocular comorbidities, intraocular surgery within three months before or during follow-up, and unreadable OCT imaging. ODR was calculated using flexible and strict methods in each OCT image.

**RESULTS:** We used correlation analysis and regression models to investigate the relationship between baseline OCT parameters and deltaBCVA. We found that ODR of the sub-RPE compartment, calculated with the strict method, had a statistically significant effect on deltaBCVA at 12 and 36 months of follow-up ( $p < 0.05$ ).

**CONCLUSION:** This is the largest study on ODR in nAMD patients to date and suggests that ODR calculated using the strict method may be a useful predictor of visual outcomes in nAMD patients treated with anti-VEGF agents.

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