Fluctuations in Macular Thickness in Patients with Retinal Vein Occlusion Treated with Anti-Vascular Endothelial Growth Factor Agents

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In this retrospective cohort study, the researchers evaluated macular thickness fluctuations in patients with retinal vein occlusions (RVOs) treated with anti-vascular endothelial growth factor (VEGF) agents to assess whether patients with larger fluctuations have poorer visual outcomes.

Central subfield thickness (CST), cube volume (CV), and cube average thickness (CAT) were collected from OCT images obtained at baseline and 3, 6, 9, and 12 months, and standard deviations (SDs) across 12 months were calculated.



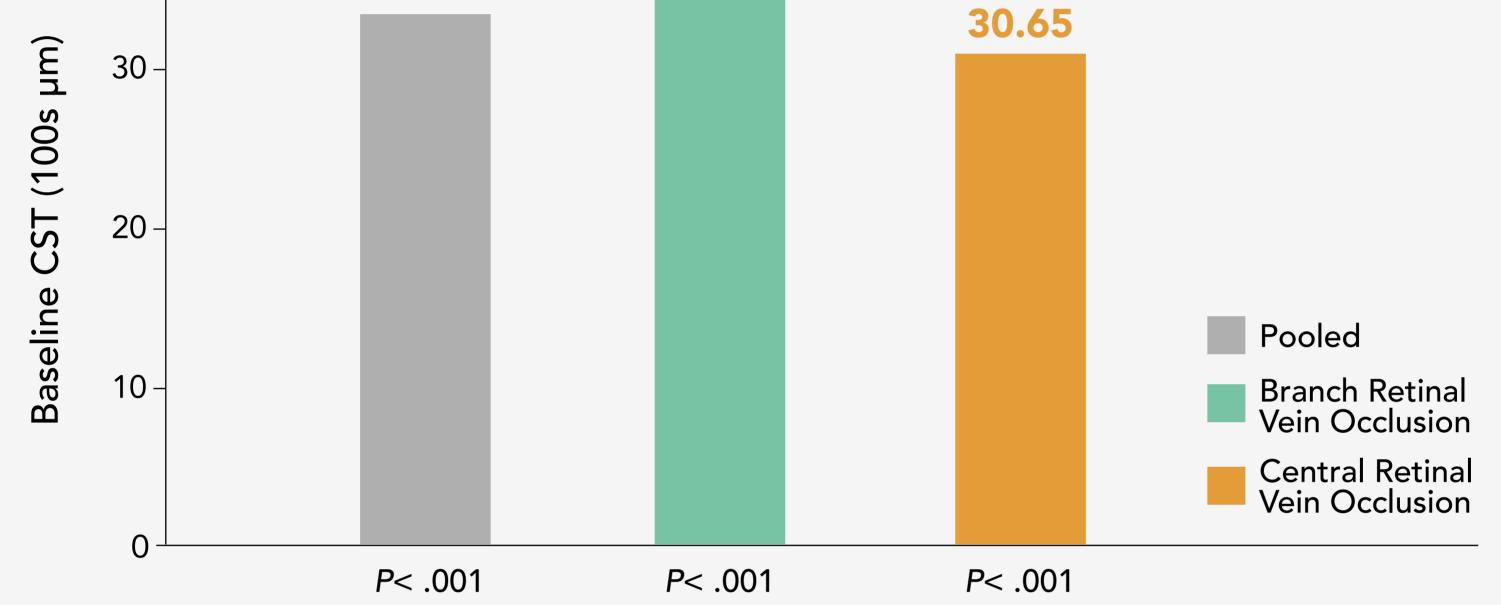
There were statistically significant differences in baseline CST levels across the groups

Multiple Regression Model for Central Subfield Thickness Standard Deviation across 12 Months in Retinal Vein Occlusion

38.59

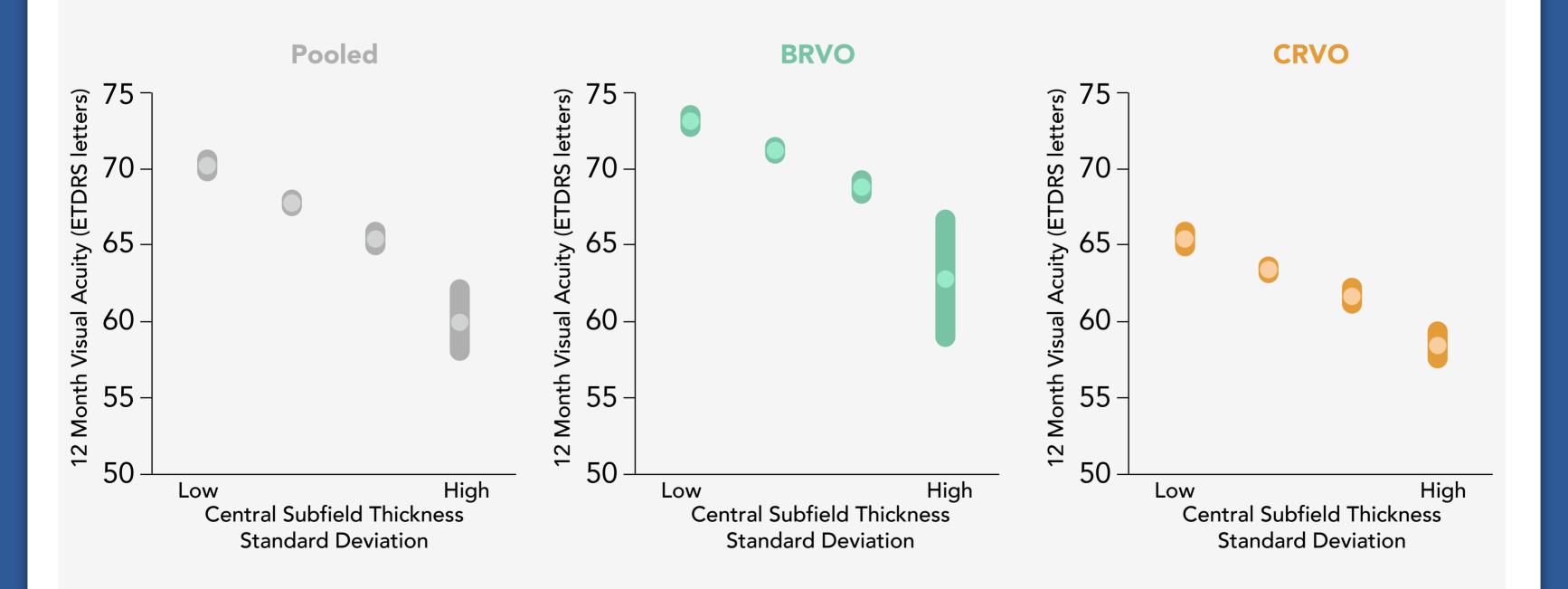
40

34.64



Macular thickness SD across 12 months was found to have a significant negative association with 12-month visual acuity

Given that macular thickness fluctuations were found to be associated with VA, the researchers also investigated what factors predict the degree of fluctuation itself.



Conclusions

Larger macular thickness fluctuations are associated with poorer visual outcomes in patients with RVO treated with anti-VEGF agents. Macular thickness fluctuations, in addition to absolute macular thickness, may be an important prognostic biomarker in these patients.