Retinal Fluid Quantification Using a Novel Deep Learning Algorithm in Patients Treated With Faricimab in the TRUCKEE Study

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This study, a sub-analysis of the TRUCKEE study population, aims to evaluate precise anatomic response of dual inhibition of VEGF-A and Ang-2 with faricimab in a real-world patient population by utilizing a deep-learning algorithm to quantify retinal fluid in patients with neovascular age-related macular degeneration (nAMD).

The Notal OCT Analyzer (NOA) investigated retinal fluid changes and segregated results based on treatment history and fluid compartments, allowing for multiple cross-sections of evaluation.

> A multicenter, retrospective study used optical coherence tomography (OCT) images and the NOA algorithm to evaluate retinal fluid changes in patients treated with faricimab for nAMD



In patients previously treated with aflibercept 2 mg, mean fluid volumes declined after switching to faricimab, as well as increased treatment intervals

Mean fluid change after successive faricimab treatments for all eyes and eyes that were previously treated with aflibercept





Time from the first faricimab treatment (days)

In treatment-naïve eyes, mean fluid volumes declined after switching to faricimab, as well as increased treatment intervals

Mean fluid change after successive faricimab treatments in treatment-naïve eyes





Time from the first faricimab treatment (days)



Conclusions

Deep-learning algorithms provide a novel tool for evaluating precise quantification of retinal fluid after treatment of nAMD with faricimab.

Faricimab demonstrates reduction of retinal fluid in multiple groups after one injection, and sustains this response after multiple treatments, along with providing increases in treatment intervals betweensubsequent injections.