PREDICTIVE FACTORS FOR ACTIVATION IN QUIESCENT MACULAR NEOVASCULARIZATION: A REAL-WORLD OCTA-BASED COHORT ANALYSIS

PURPOSE:

- To evaluate the activation rate of quiescent type 1 macular neovascularization (MNV)
- To identify OCTA–derived predictors of conversion to exudative disease.

METHODS:

- A retrospective longitudinal cohort study
- Inclusion Criteria: Eyes with treatment-naïve quiescent MNV associated with AMD or polypoidal choroidal vasculopathy.
- Structural OCT and OCTA parameters were analysed at baseline and during follow-up.
- Activation Definition: Development of intraretinal or subretinal fluid or haemorrhage requiring anti-VEGF therapy.

RESULTS:

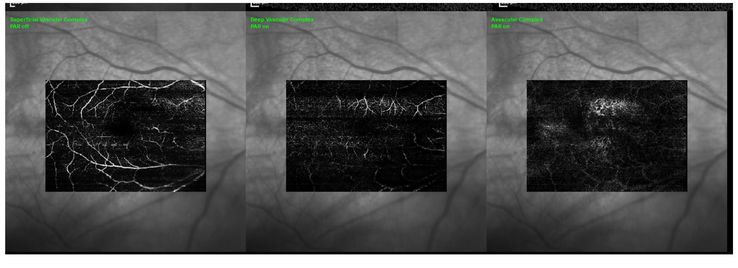
- Follow up period: 35.9 months
- 17 out of 50 eyes progressed to exudative disease
- Neovascular area enlargement and increased branching complexity was seen in 29%, hypointense halo formation in 47.1% and increasing pigment epithelial detachment dimensions were seen in 23.5% of activated eyes.

CONCLUSIONS:

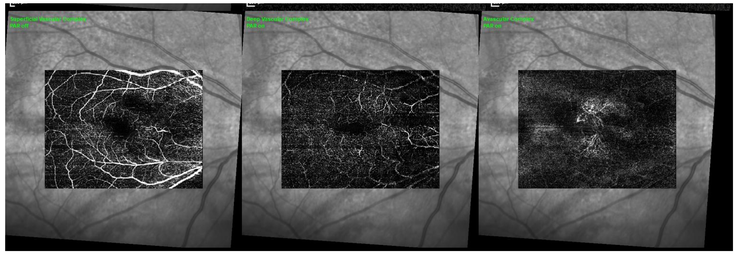
- OCTA-derived vascular remodelling features are strong predictors of activation in quiescent type 1 MNV.
- Incorporating these biomarkers into clinical surveillance protocols may improve risk stratification and enable earlier detection of conversion.

Feature	Odds Ratio	95% CI	p-value
Neovascular area enlargement	23.83	3.35–169.39	0.001
Hypointense halo	20.00	2.04–196.37	0.004
Increased branching complexity	16.25	2.46–107.24	0.003
Increased PED height/width	12.50	2.11–74.20	0.004

Table: Structural OCT and OCTA predictive factors



OCT Angiography of macula of the right eye showing choroidal neovascular membrane.



OCT Angiography of macula of the right eye of same patient showing increase choroidal neovascular membrane vascular density, complexity and size after 24 months.