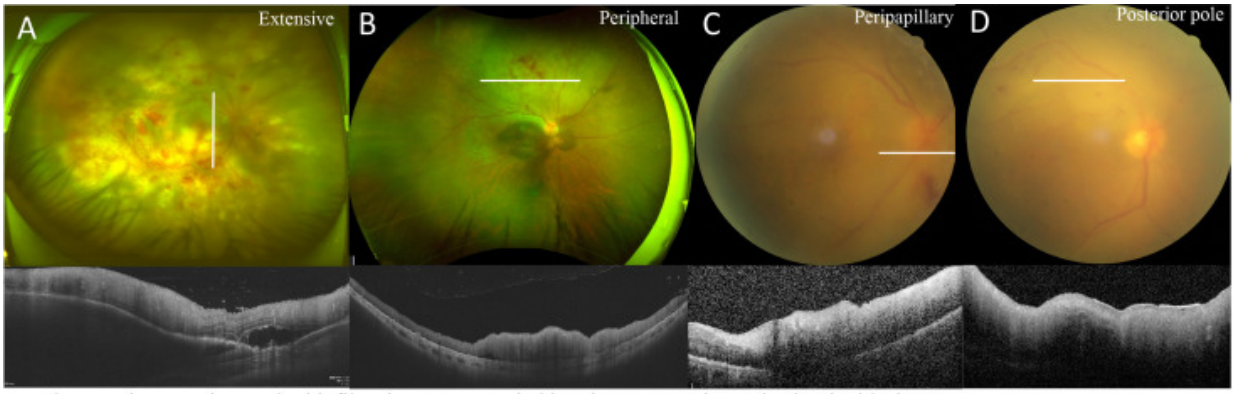
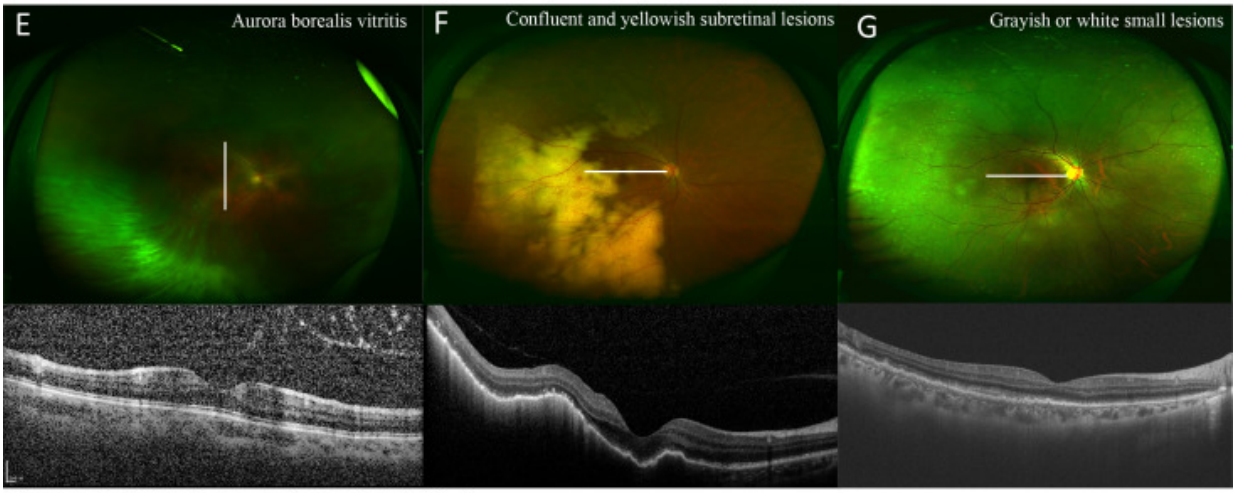
Vitreoretinal lymphoma with intraretinal infiltration, simulating retinal necrosis



Pseudonecrotic VRL: intraretinal infiltration accompanied by vitreous opacity and subretinal lesions



Nonnecrotic VRL: vitreous and subretinal infiltration

Purpose

To describe the clinical features and outcomes of vitreoretinal lymphoma (VRL) with intraretinal infiltration, a pseudonecrotic variant.

Design

Retrospective, comparative analysis.

Subjects

Patients with biopsy-proven VRL at a single center from August 2016 through April 2022.

Methods

A retrospective record review was conducted for clinical, imaging, and laboratory data.

Main Outcome Measures

Clinical features, visual, and survival outcomes.

Results

We included 67 eyes of 40 patients with biopsy-proven VRL. Pseudonecrotic retinal lesions (PRLs) were found in 24 (35.8%) eyes of 19 patients; these eyes were classified as a pseudonecrotic variant, while the remaining 43 (64.2%) eyes were classified as nonnecrotic. Comparison (pseudonecrotic vs. nonnecrotic) revealed that eyes with PRLs at presentation had a worse median BCVA (2.4 vs. 0.5 log MAR, P<.0001) and severe ocular manifestations (P<.0001), including optic disc swelling (79.2% vs. 0%), retinal vasculitis (93.8% vs. 4.7%), retinal hemorrhage (83.3% vs. 0%), and retinal detachment (79.2% vs. 0%). Follow-up data was available for 20 eyes (17 patients) in the pseudonecrotic group and 43 eyes (21 patients) in the nonnecrotic group. An equally worse median BCVA was noted in pseudonecrotic eyes at 6 months post-treatment and the final follow-up as compared with nonnecrotic eyes (2.4 vs. 0.3 log MAR, P<.0001). The median follow-up period did not differ

significantly (16.6 vs. 18.4 months, P =.47). Initial BCVA (β=0.300, P =.003), presence of anterior chamber cell (β=0.472, P =.013), and retinal detachment (β=1.137, P<.0001) were significantly associated with poor visual outcomes in multivariate linear regression analysis (Adjusted R^2 = 0.693). There were no significant differences in survival outcomes.

Conclusion

VRL can present as pseudonecrotic retinopathy, with more advanced clinical presentations and worse final visual outcomes.