

# Proliferative or Not Proliferative?



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# Co-authors & Financial Disclosures

- J. Fernando Arevalo, MD, PhD
  - Springer SBM LLC (P); EyEngineering Inc. (C); DORC International B.V. (C)(L); Allergan Inc. (C)(L); Bayer (C)(L); Mallinckrodt (C); TOPCON (S)
  - Akosua Nti, MD
    - None
- Adrianna Jensen, MD
  - None

# Summary and Discussion

- This patient's case presents only the second case described in the literature of HIV retinopathy presenting as peripheral ischemic retinopathy and neovascularization
- Treatment of HIV proliferative retinopathy includes PRP
- This case expands the previously documented scope of HIV manifestations in the eye

# HPI

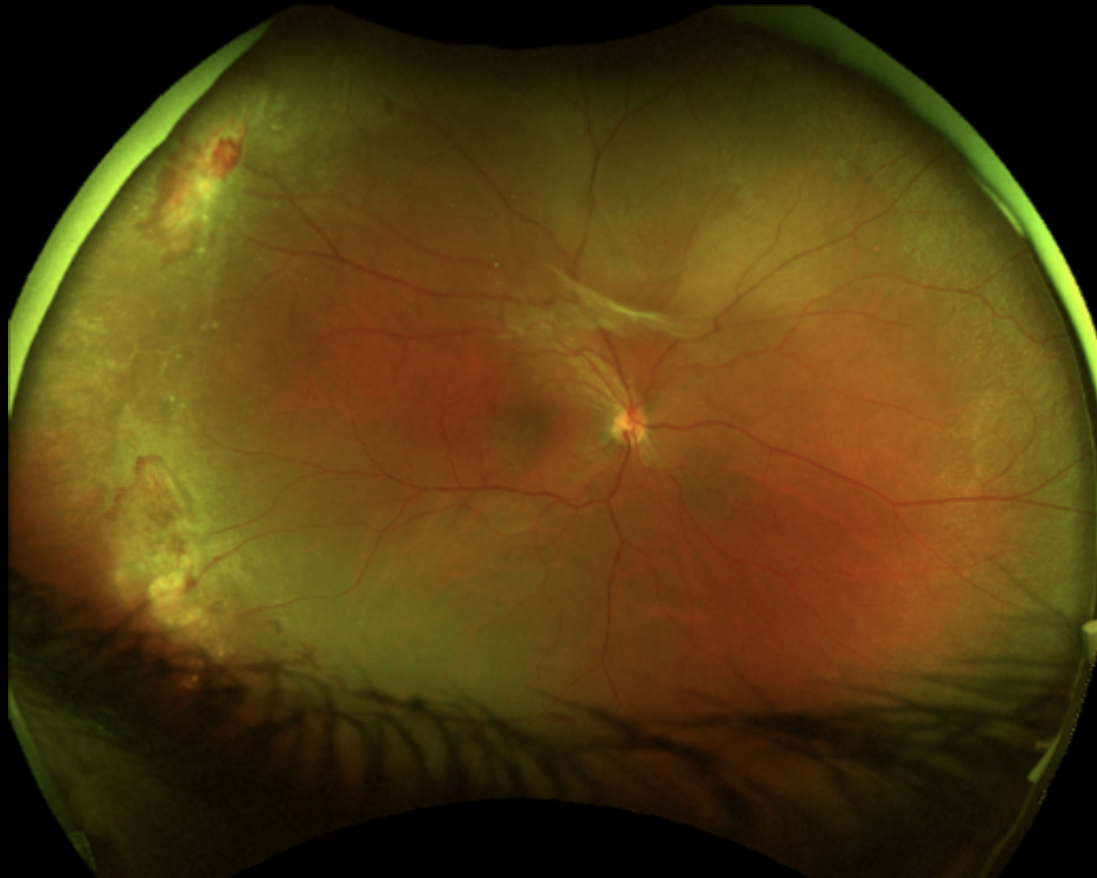
- 49 year old male with history of HIV on HAART
  - Referral from outside ophthalmologist for dense visually-significant epiretinal membrane in right eye
  - Presumed history of BRAO in this setting
- PMH: HIV on antiretrovirals with notably low CD4 count in the past; hypertension; hyperlipidemia; history of treated syphilis infection

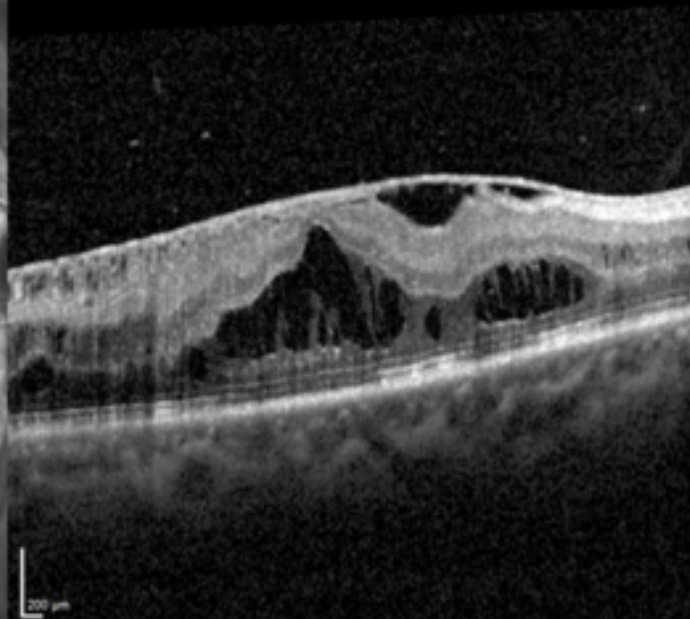
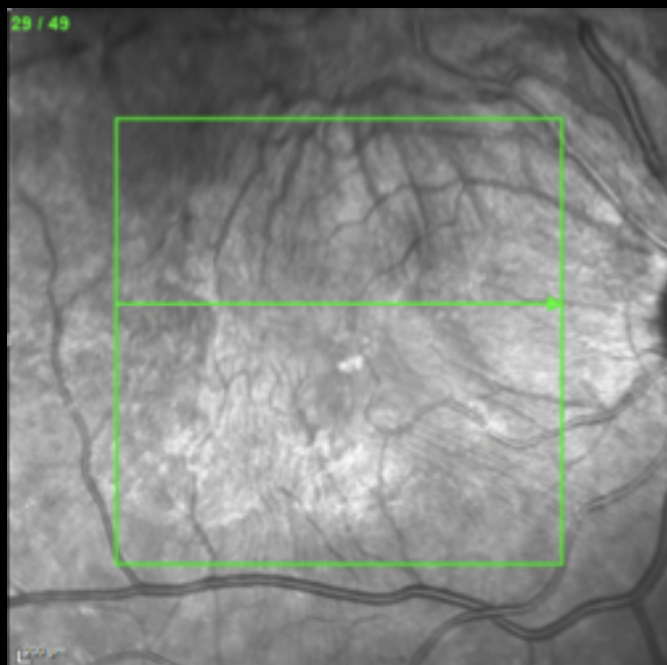
# Exam

**Visual Acuity** : OD 20/30, OS 20/20

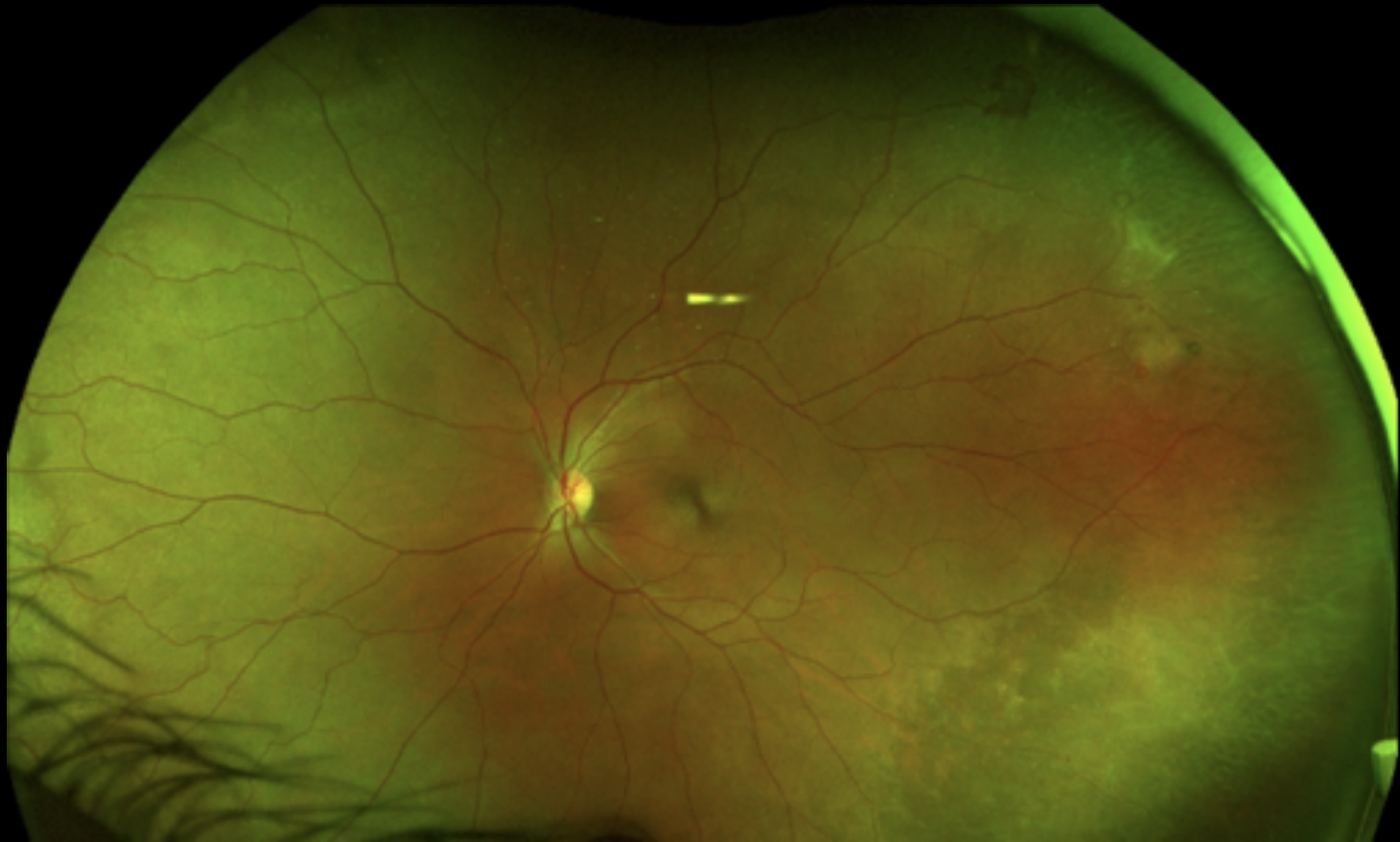
**Anterior Exam**: Unremarkable, no cell in anterior chamber or anterior vitreous

# Right Eye





# Left Eye





# Fluorescein Angiography, Right Eye



# Fluorescein Angiography, Left Eye



# Laboratory Work Up

- T pallidum titer 1:4, RPR + (treated)
- TB testing negative (T spot and Quantiferon)
- ACE borderline elevated
- Muramidase lysozyme normal
- Chest X-ray normal
- ANA negative
- Sick cell screen negative
- A1c 6.0 – barely elevated
- CD4 count 472, HIV PCR RNA 40 copies/mL

Diagnosis?

# Peripheral Ischemic Retinopathy – Proliferative Retinopathy from HIV

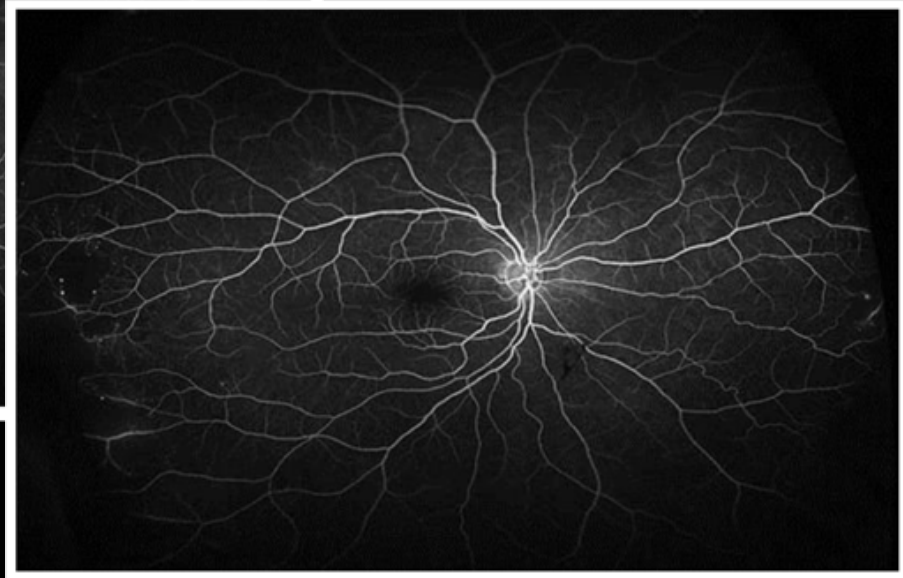
- No evidence of events or co-morbidities that usually lead to peripheral neovascularization
  - No clear indication of past retinal artery occlusion
  - No scarring to suggest CMV infection
- Likely that poorly controlled HIV in the past played the primary role in pathogenesis
- Treat with PRP

## Peripheral Retinal Neovascularization with Vitreous Hemorrhage in HIV Retinopathy

Kim Jiramongkolchai Tin Yan Alvin Liu J. Fernando Arevalo

- 53 yo AA female with AIDS, with peripheral retinal neovascularization and no other cause for retinal ischemia, current CD4 462, HIV RNA copies <20/mL
  - CWS and diffuse IRH on initial AIDS diagnosis with enlarged FAZ
- Treatment with peripheral laser photocoagulation
- First reported case of proliferative retinopathy and vitreous hemorrhage as a direct association with HIV

# Nonperfusion and Neovascularization



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# Reference

Jiramongkolchai K, Liu TYA, Arevalo JF. Peripheral Retinal Neovascularization with Vitreous Hemorrhage in HIV Retinopathy. *Case Rep Ophthalmol*. 2017;8(2):353-357. Published 2017 Jun 16. doi:10.1159/000477161