## Genesis of Retinal-Choroidal Anastomosis in Macular Telangiectasia Type 2

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#### Disclosures

• None

### Summary

- OCTA allows MacTel2 visibility in ways FA cannot
- Retinal-choroidal anastomosis (RCA) associated with DCP descent
- RCA occurs without exudation or subretinal/RPE NV

# Background

- MacTel2 degenerative condition first described by Gass in 1977
- Direct vascular connection (retinal-choroidal anastomosis; RCA) thought only in end-stage cases, limited by FA
- OCTA reveals RCA may occur earlier
- Can RCA be identified de novo?



#### J Donald M Gass

Leading ophthalmologist and expert on macular disease. Born on Aug 2, 1928, in Montague, Prince Edward Island, Canada; died on Feb 26, 2005, from pancreatic cancer in Nashville, TN, USA, aged 76 years.

#### Methods

- MacTel2 patients with >1 visit minimum 2 months apart
- OCTA
  - Projection artifact removal
  - Volume rendering
- Longitudinal measurement
  - Change in retinal subsidence grade (descent of DCP, previously described)
  - New RCA
  - New hyperpigmentation





18 months later







#### Results

- 24 eyes (12 patients)
- Retinal subsidence increased in 9 (37.5%) eyes
- RCA diagnosed initially in 8 (33%), eventually 5 (20.8%) more
- Hyperpigmentation present in initial 8, but not new cases
- Pre-existing RCA expanded in size and number

#### VLDRL Knockout Pseudocorrelation





#### RCA in MacTel2

- Identification of RCA without any exudation, CNV, or pigment
- Associated with descent of the DCP
- Occurs over time without reversal

### Summary

- OCTA allows MacTel2 visibility in ways FA cannot
- Retinal-choroidal anastomosis (RCA) associated with DCP descent
- RCA occurs without exudation or subretinal/RPE NV

## Limitations

- Small numbers
- Combined retrospective and prospective
- Variable follow-up

#### Future directions

- Histopathologic correlation within human donors
- Detection of subsequent frank CNV (larger study)



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