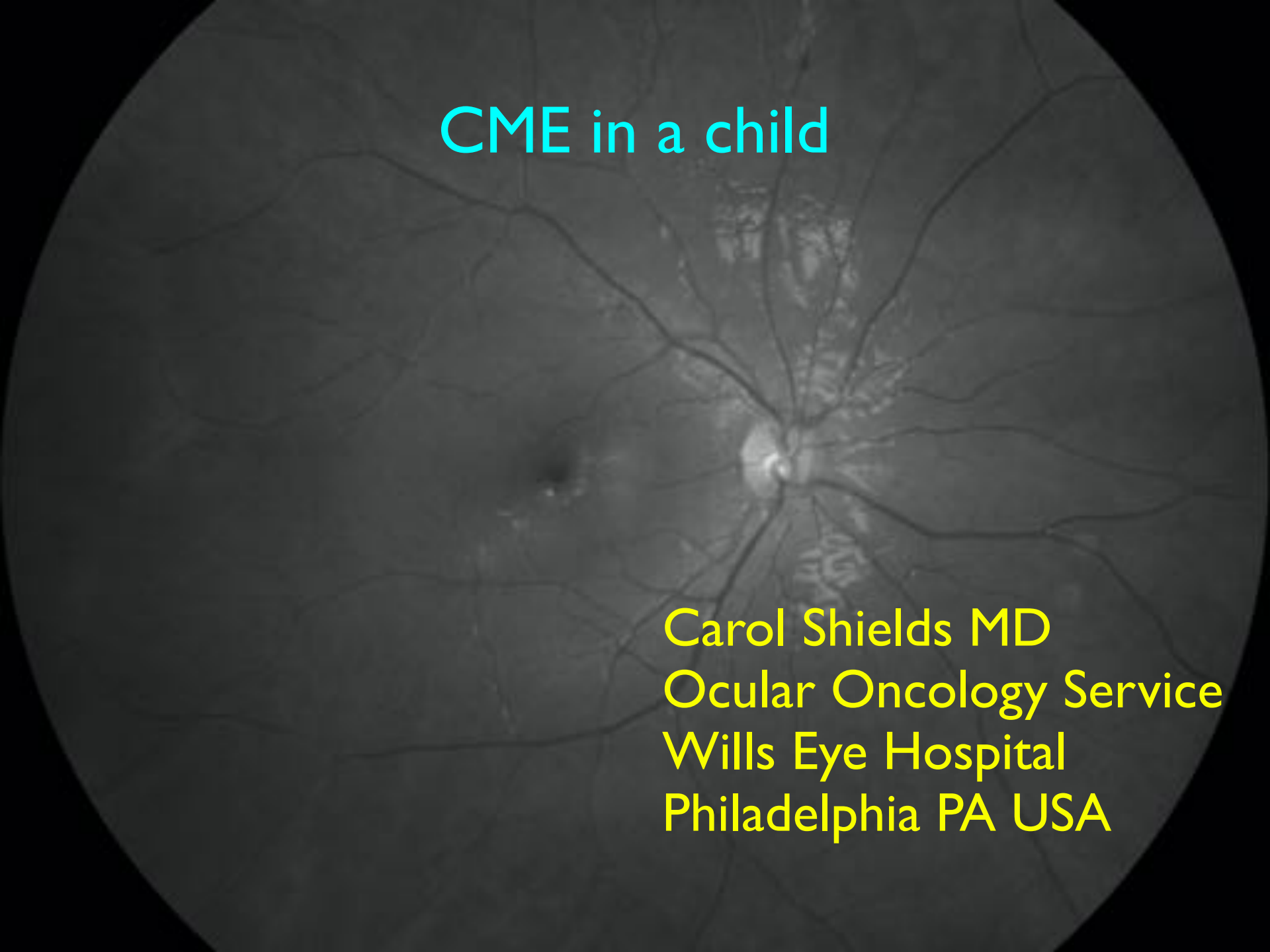
CME in a child



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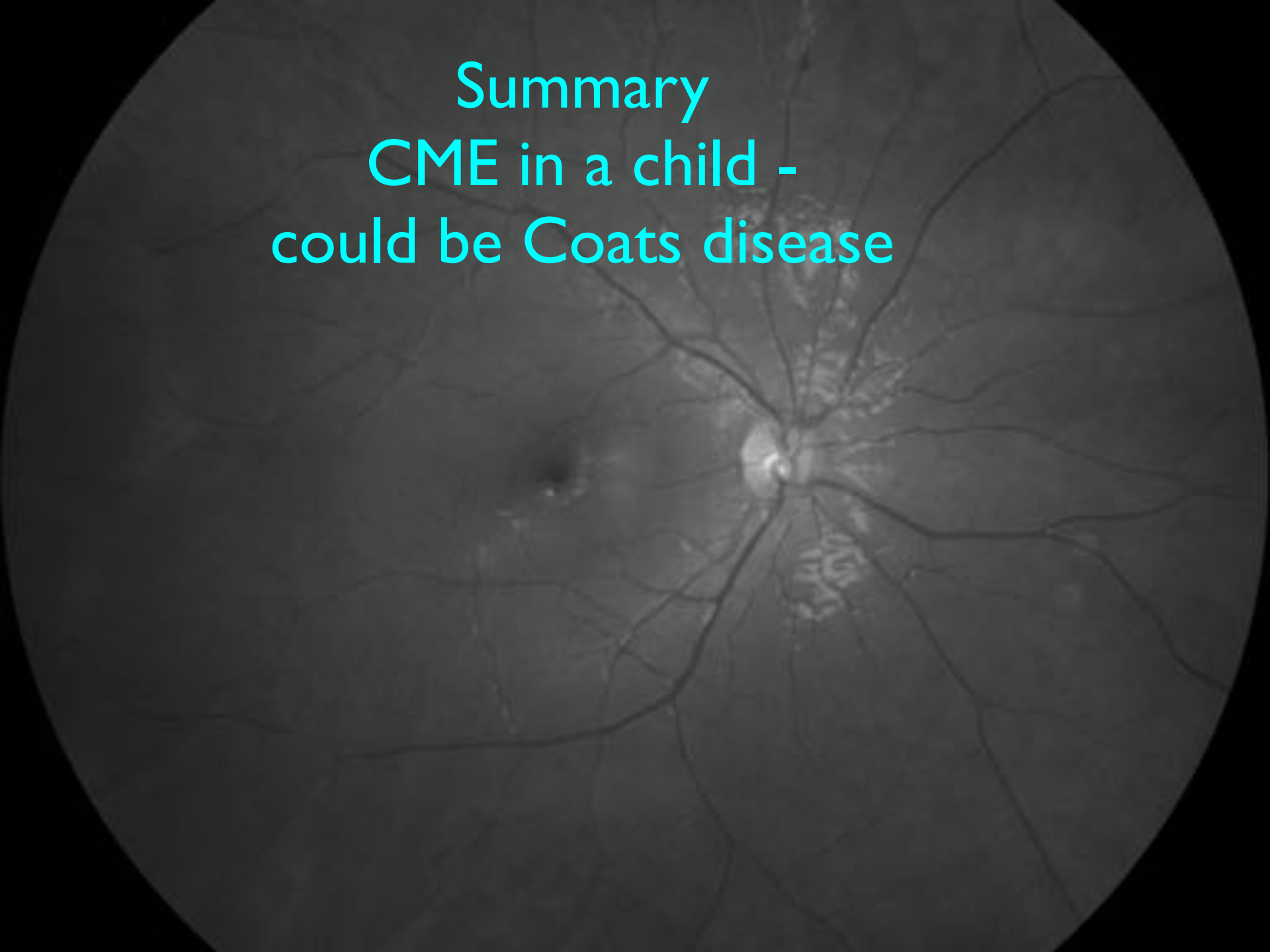
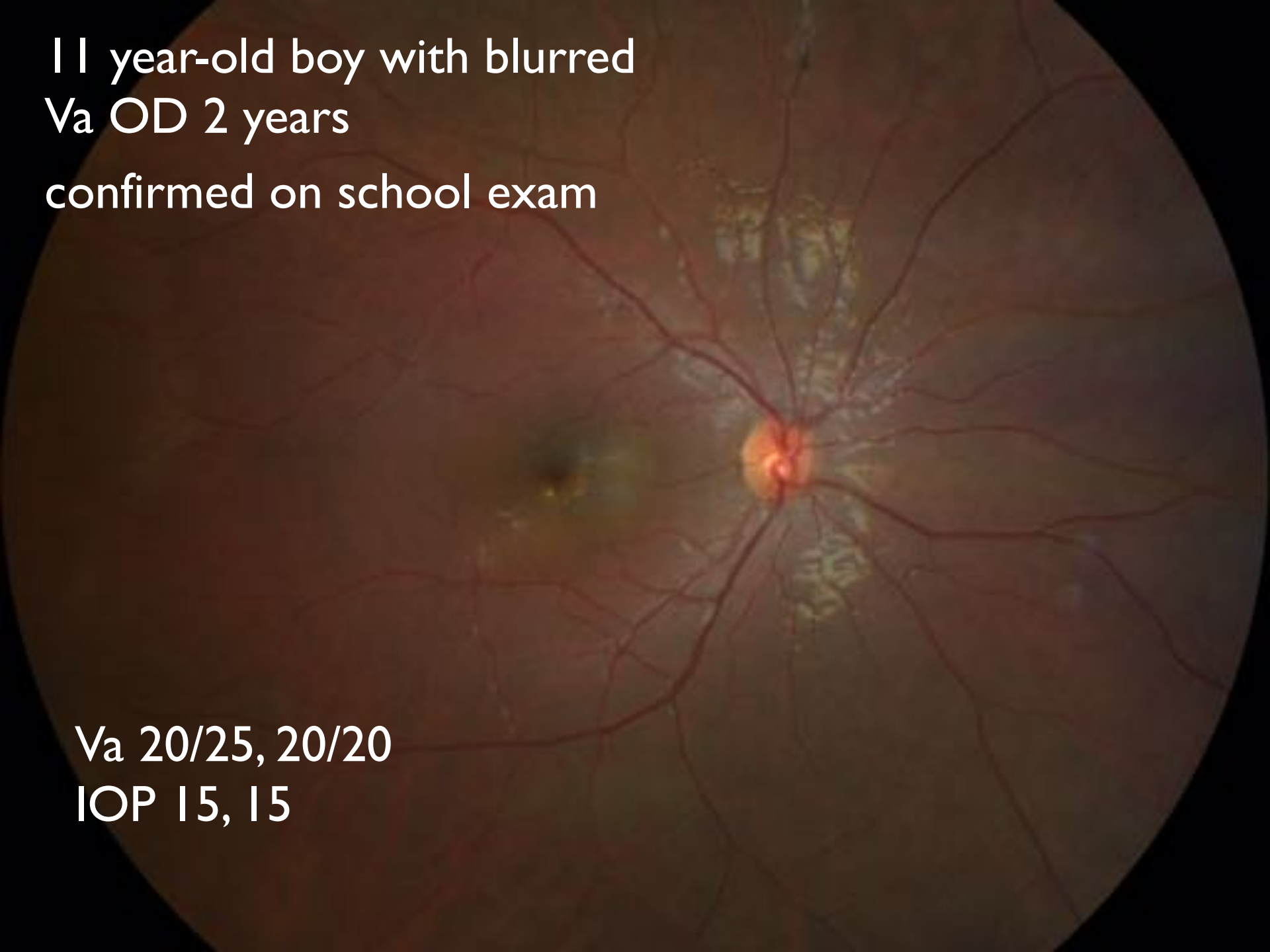
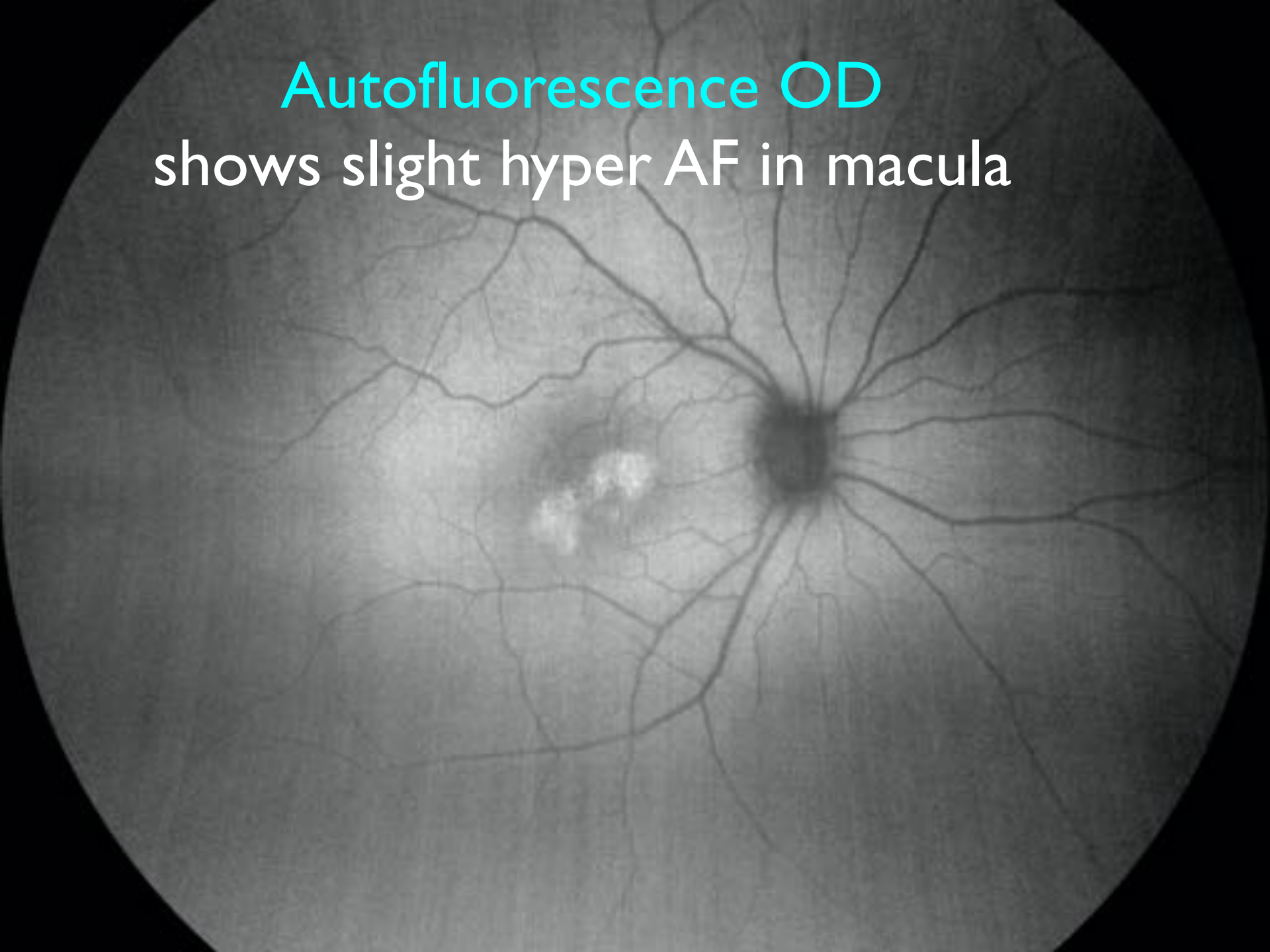
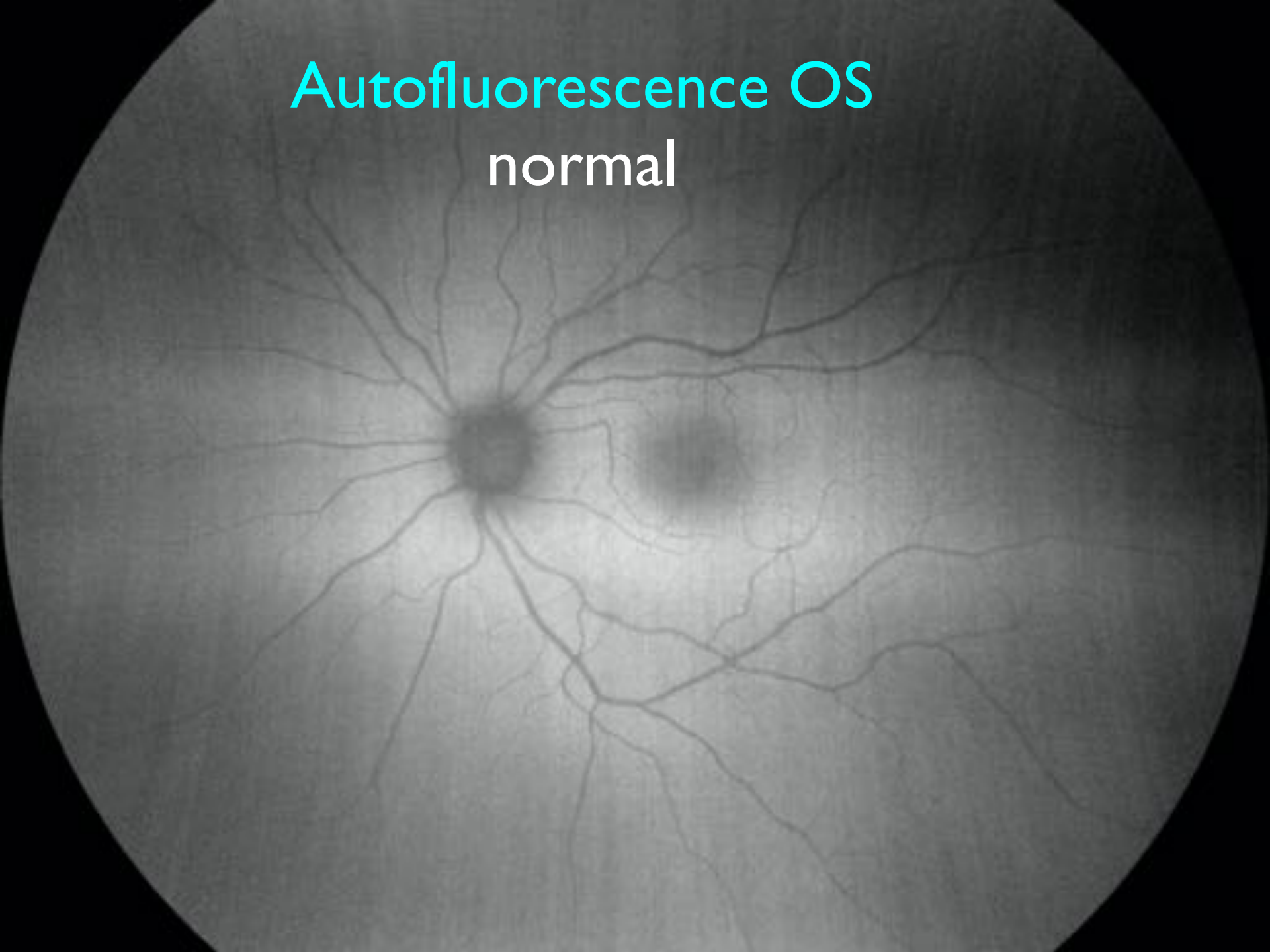
Financial Disclosure

- I have no financial interests or relationships to disclose.

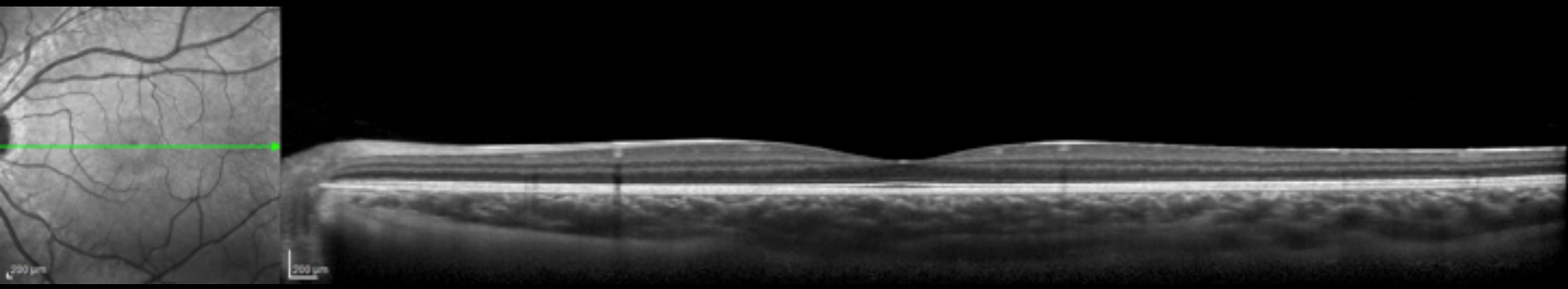

Summary
CME in a child -
could be Coats disease


11 year-old boy with blurred
Va OD 2 years
confirmed on school exam
Va 20/25, 20/20
IOP 15, 15

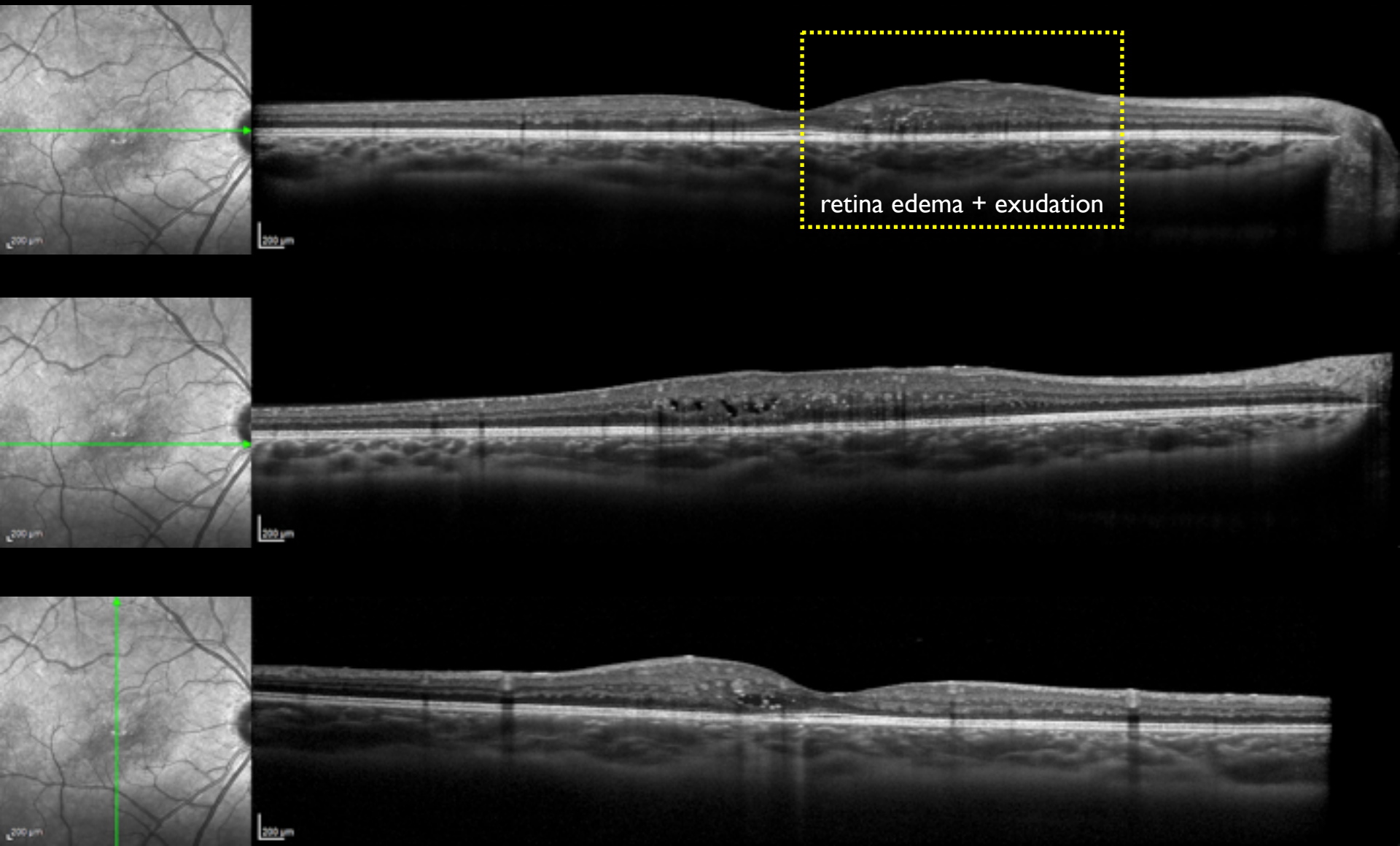

Autofluorescence OD
shows slight hyper AF in macula


Autofluorescence OS
normal

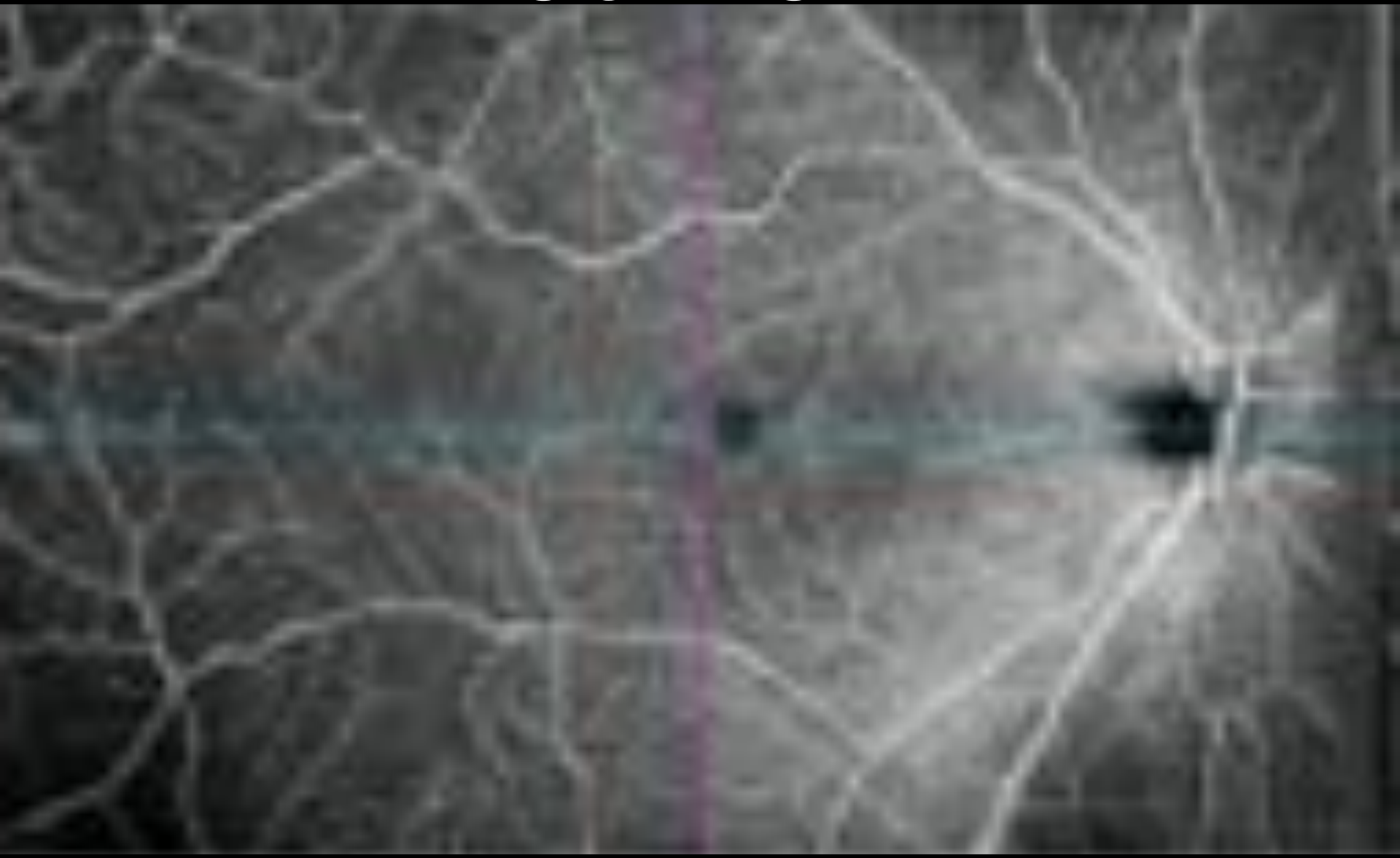
OCT OS



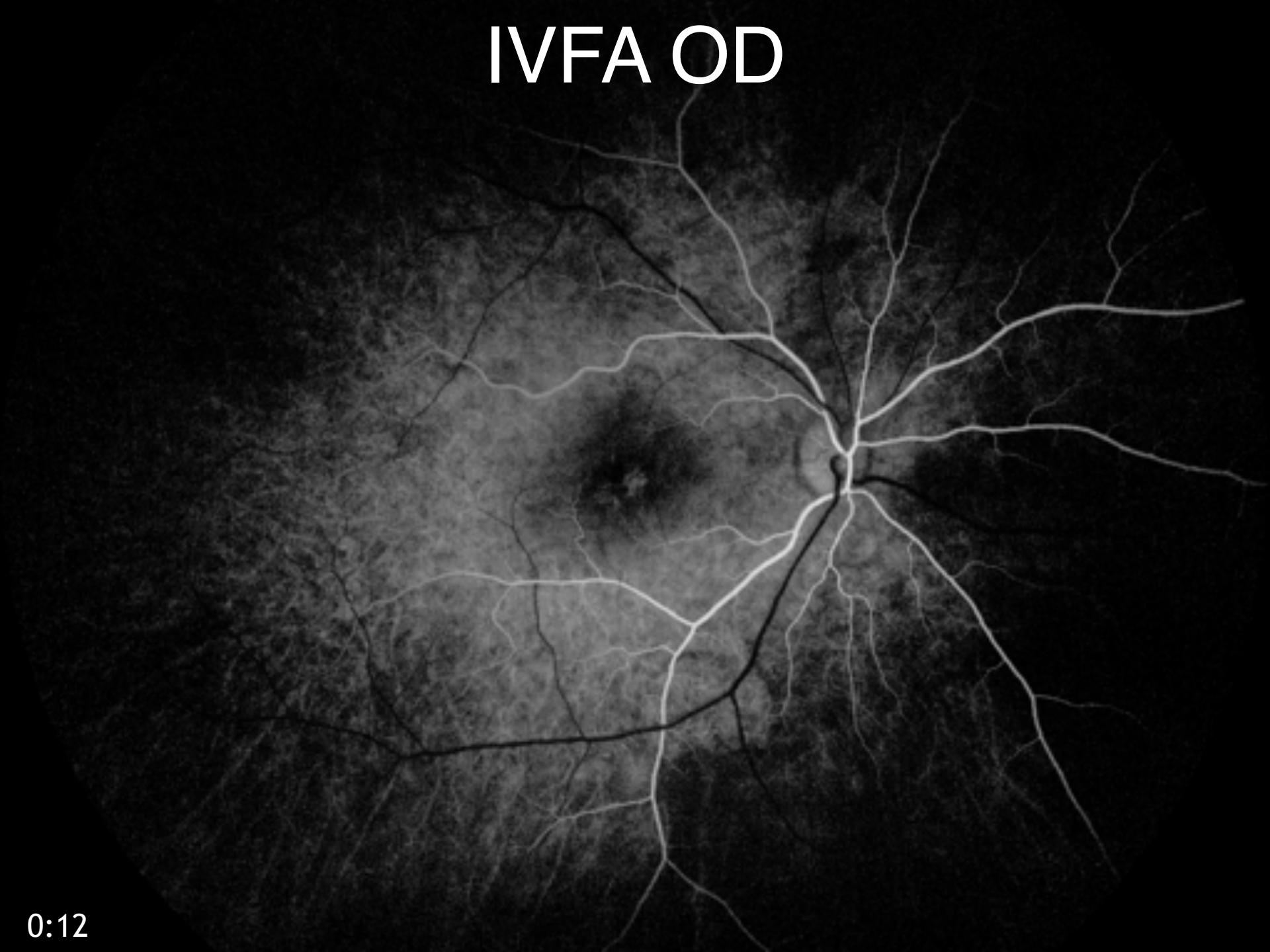
OCT OD

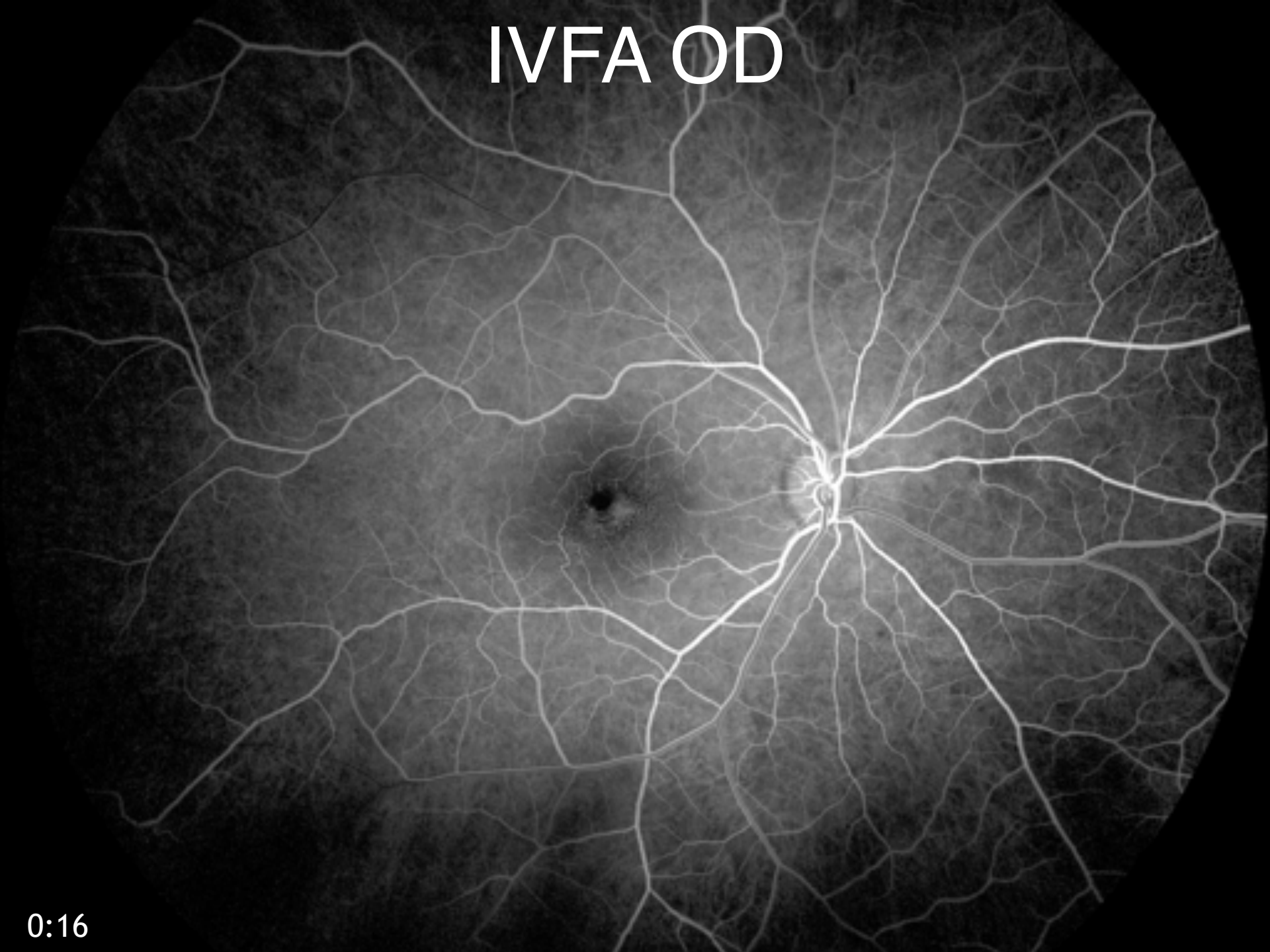


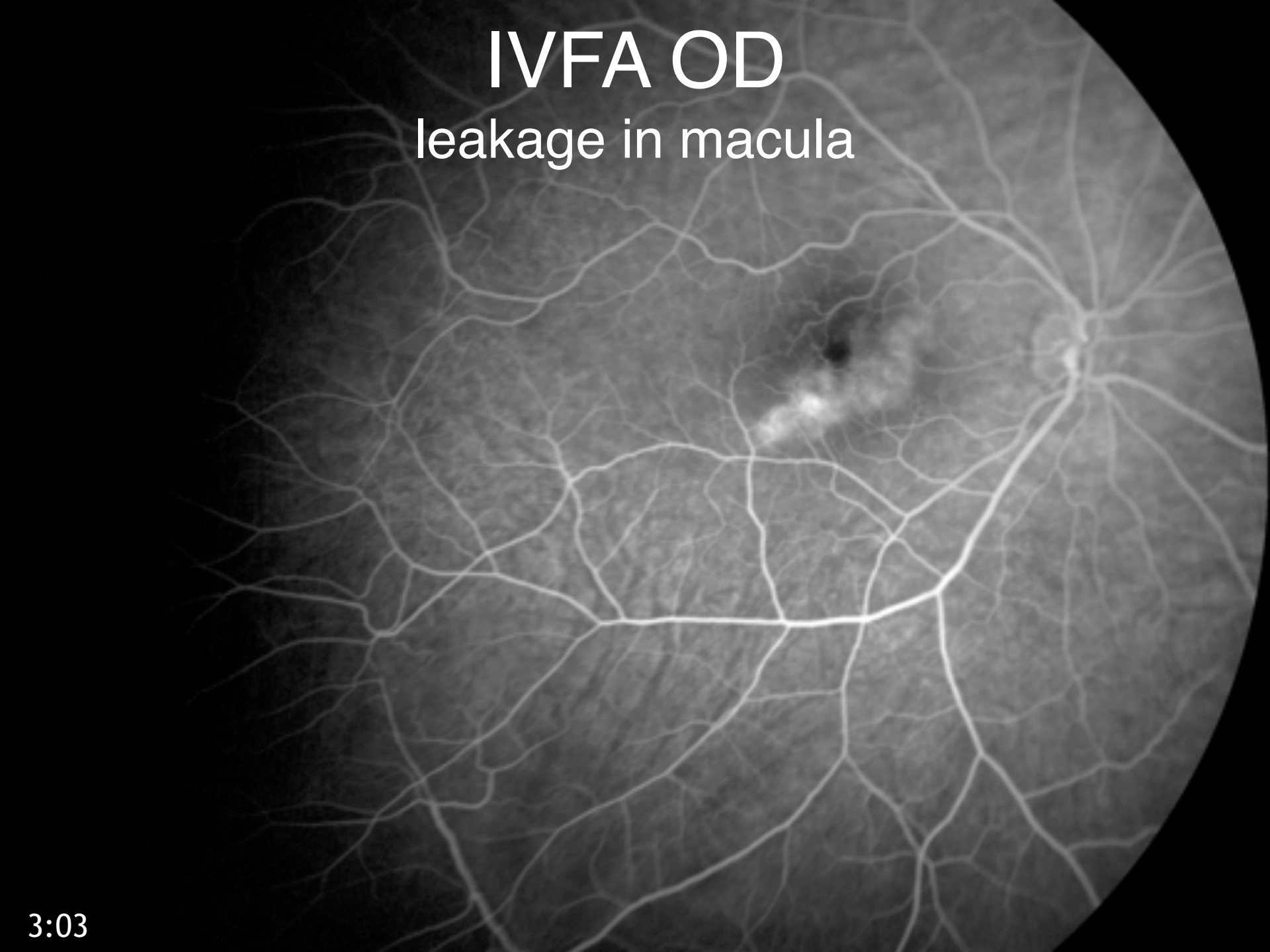
OCTA OD

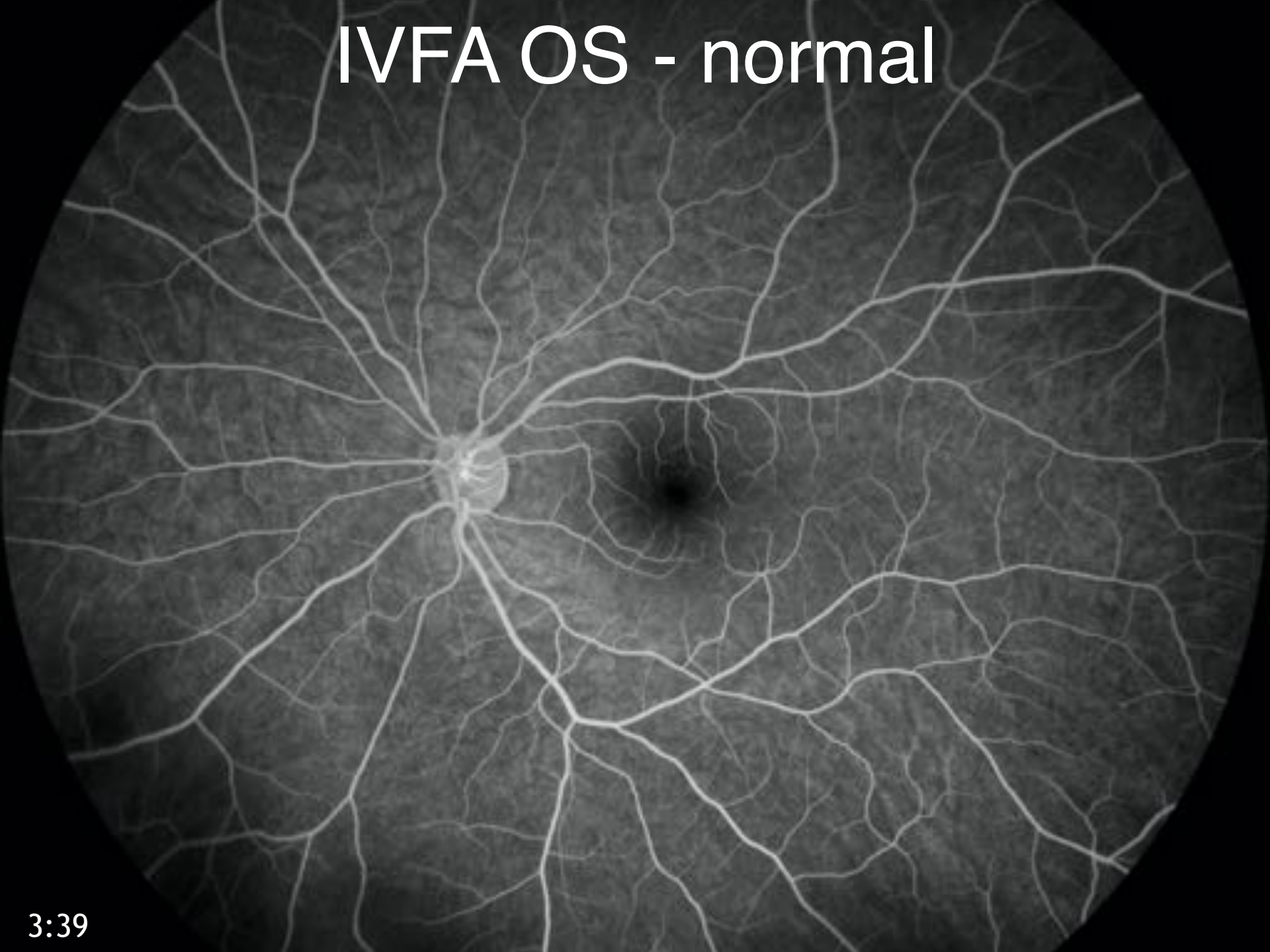


Slight irregularity of the perifoveal capillaries with trace reduction in capillary vascular density


IVFA OD
0:12


IVFA OD
0:16


IVFA OD
leakage in macula
3:03

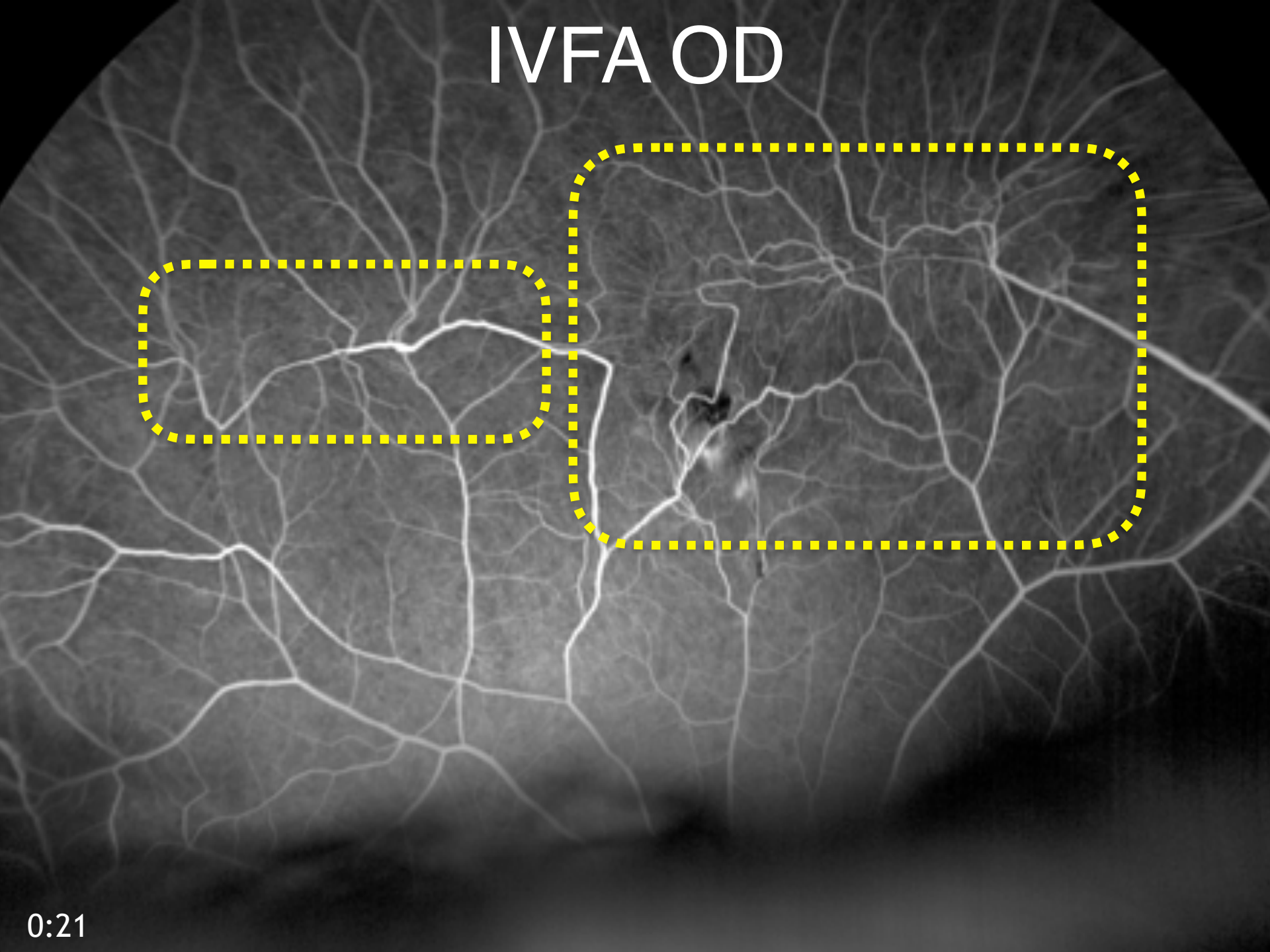

IVFA OS - normal
3:39

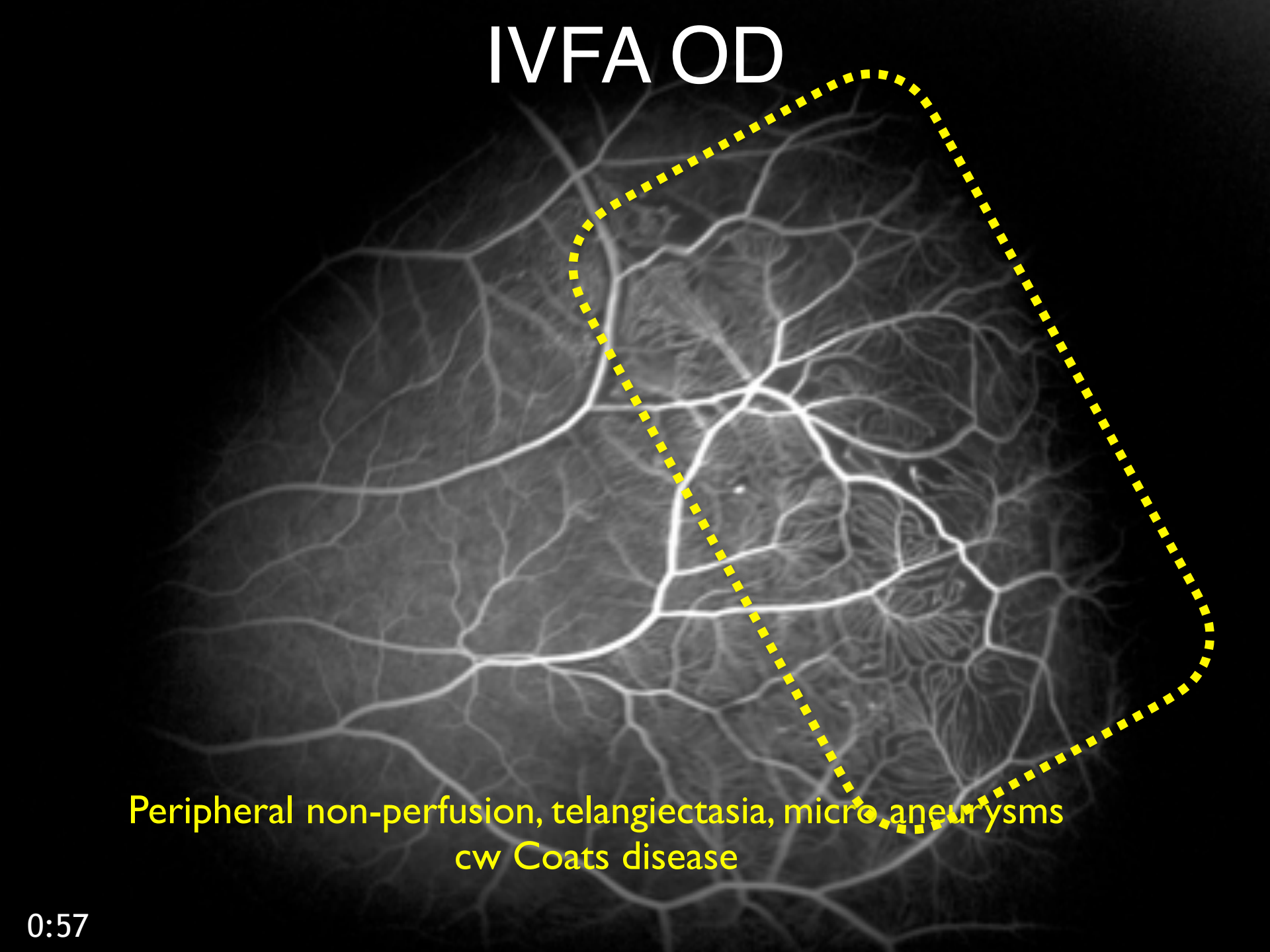
Cystoid Macular Edema in a kid

- Congenital
- Vascular
  - Diabetes mellitus
  - BRVO
  - Coats
- Inflammatory
- Medications
- Tumor (VPT, hemangioblastoma, adenoma)
- Trauma
- Degeneration

Check the periphery

Let's look further …


IVFA OD
0:21

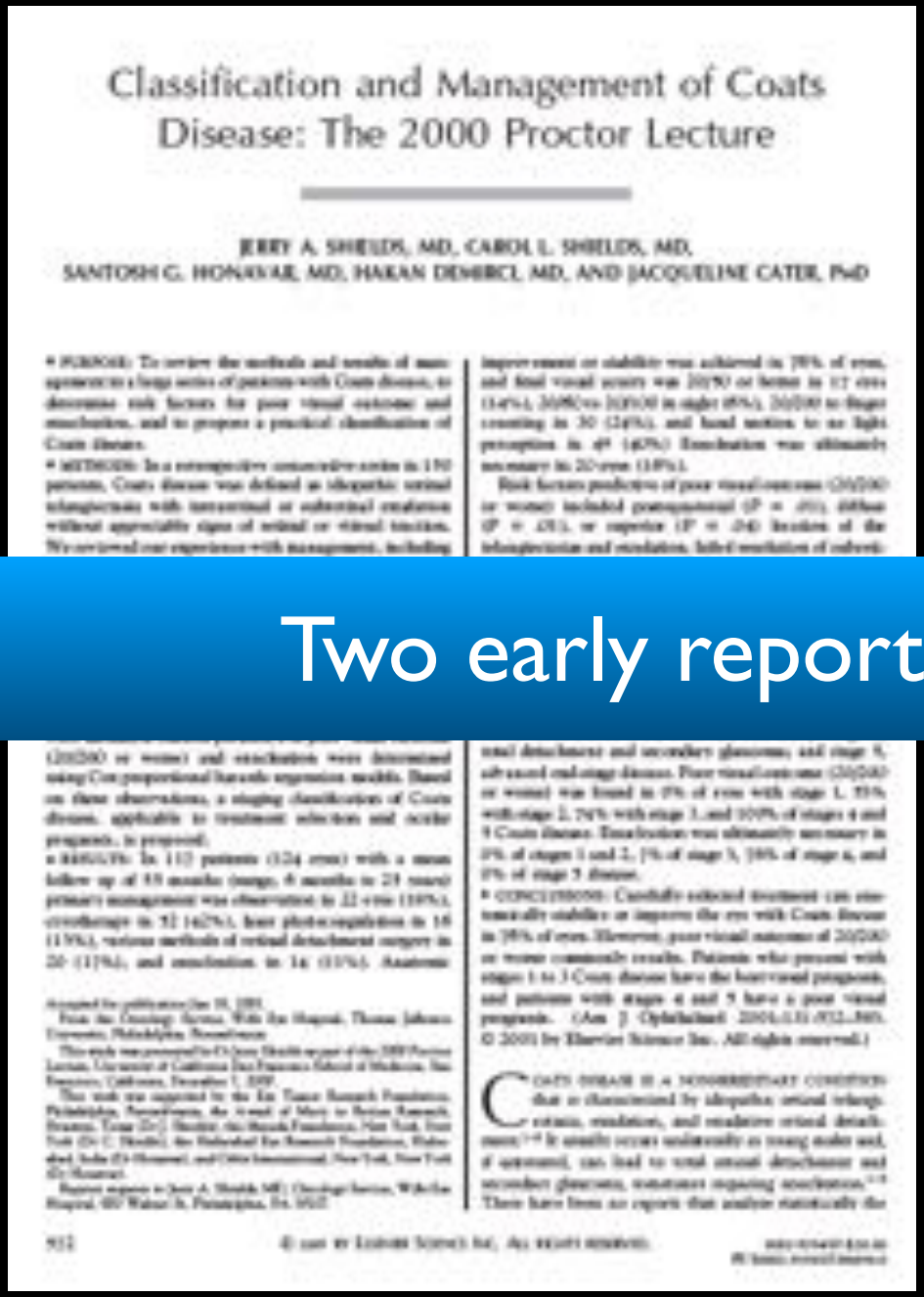

IVFA OD
Peripheral non-perfusion, telangiectasia, micro aneurysms
cw Coats disease
0:57

Peripheral Retinal Vasculopathy

- Coats disease
- FEVR
- Facioscapulohumeral muscular dystrophy
- Dyskeratosis congenita
- Others

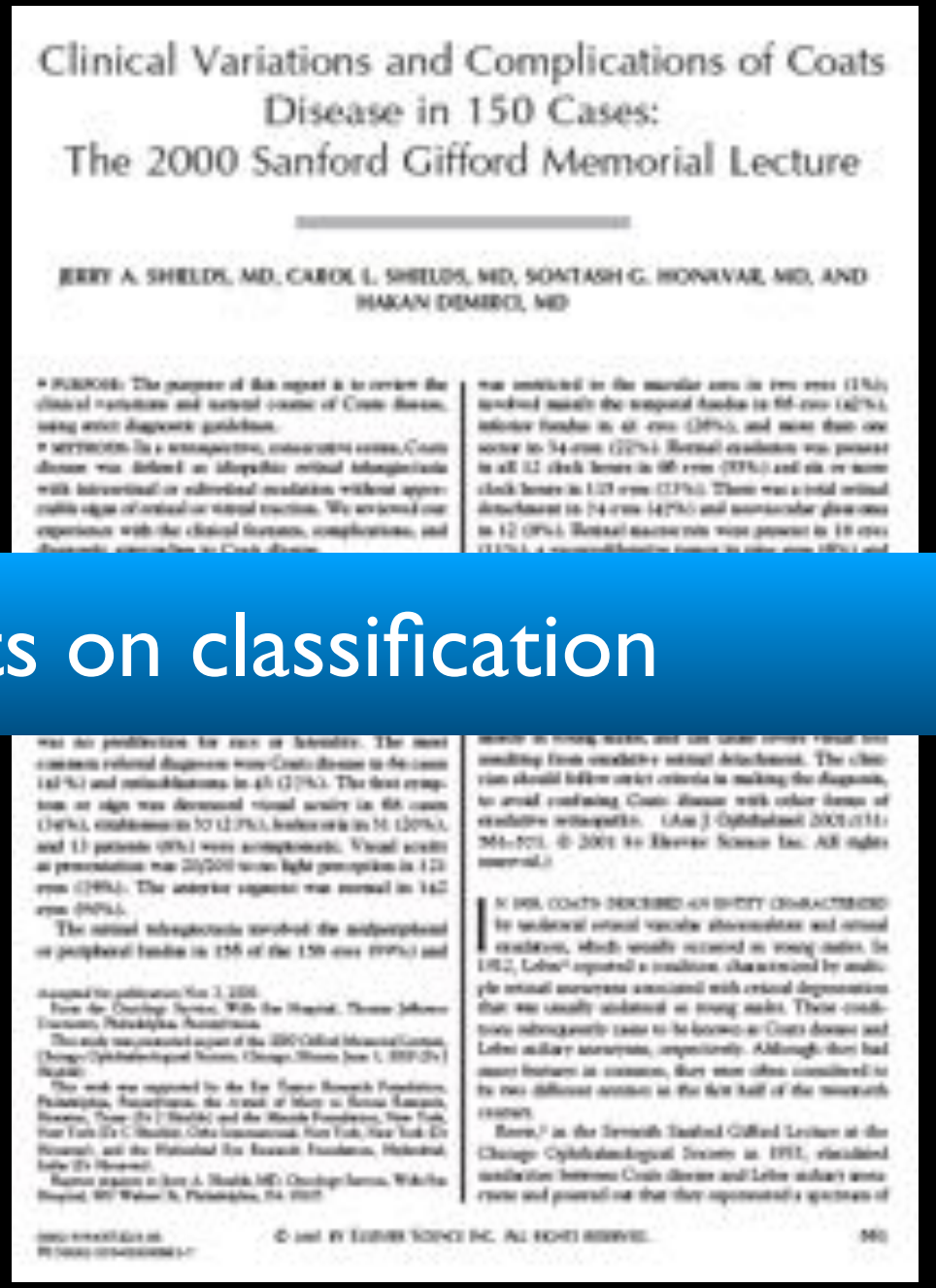
What do we know about Coats disease?

- Classification
- Younger age more advanced
- Vision depends on classification



Classification and Management of Coats Disease: The 2000 Proctor Lecture

JERRY A. SHIELDS, MD, CAROL L. SHIELDS, MD, SANTOSH G. HONAVAR, MD, HAKAN DEMIRCI, MD, AND JACQUELINE CATER, PhD



Clinical Variations and Complications of Coats Disease in 150 Cases: The 2000 Sanford Gifford Memorial Lecture

JERRY A. SHIELDS, MD, CAROL L. SHIELDS, MD, SOATASH G. HONAVAR, MD, AND HAKAN DEMIRCI, MD

Two early reports on classification

Coats disease classification

Stage 1	Telangectasia
Stage 2	T Exudation
Stage 3	T E Subretinal fluid
Stage 4	T E S Glaucoma
Stage 5	T E S G Phthisis

Shields, Shields, Honavar, et al. Coats disease. Clinical variations and complications of Coats disease in 150 cases. AJO 2001
Shields, Shields, Honavar, et al. Classification and management of Coats disease. AJO 2001

Coats disease classification simplified

		150 cases
Stage 1	T	1%
Stage 2	T E	14%
Stage 3	T E S	68%
Stage 4	T E S G	15%
Stage 5	T E S G P	2%

Shields, Shields, Honavar, et al. Coats disease. Clinical variations and complications of Coats disease in 150 cases. AJO 2001
Shields, Shields, Honavar, et al. Classification and management of Coats disease. AJO 2001

Coats Disease: Clinical Features and Outcomes by Age Category in 351 Cases

Lauren A. Dalvin, MD; Sanika Udyaver, BS; Li-Anne S. Lim, MD; Mehdi Mazloumi, MD, MPH; Hatice T. Atalay, MD; Chloe T. L. Khoo, MD; Carol L. Shields, MD

JPOS 2019

ABSTRACT

Purpose: To investigate features and outcomes of Coats disease by patient age.

Methods: Patients with Coats disease from 1973 to 2018 were evaluated based on age category at presentation

Conclusions: Younger patients (3 years or younger) with Coats disease present with worse visual acuity and more advanced disease stage, and are more likely to require ultimate enucleation.

[*J Pediatr Ophthalmol Strabismus*. 2019;56(5):288-296.]

Regarding Coats disease per age

disease diagnosed (2 vs 6 vs 27 years, $P < .001$). The youngest age group had more referral diagnoses of retinoblastoma (29% vs 15% vs 0%, $P < .001$), worse presenting visual acuity (< 20/200: 80% vs 67% vs 31%, $P < .001$), more advanced Coats disease stage (stage 3B: 65% vs 38% vs 10%, $P < .001$), and greater clock-hour extent of telangiectasia (7 vs 5 vs 4, $P < .001$), light bulb aneurysms (7 vs 4 vs 3, $P < .001$), exudation (10 vs 7 vs 5, $P < .001$), and

vascular disorder characterized by retinal telangiectasia, micro and macro "light bulb" aneurysms, and intraretinal and subretinal exudation.[1] Common presenting features include vision loss, strabismus, and xanthocoria, the latter of which can mimic leukocoria of retinoblastoma.[1] Coats disease is classified into five stages of increasing disease severity, ranging from asymptomatic retinal telangiectasia (stage 1) to

Coats disease based on age

- Dalvin et al 2019
- n=351 pts

Outcomes

- (≤3 vs. >3-10 vs. >10 years)
  - worse final Va<20/200 (83% vs. 64% vs. 39%, p<0.001)
  - require enucleation (22% vs 10% vs 6%, p=0.010)

Visual acuity outcomes in Coats disease by classification stage in 160 patients

British J Ophthalmol 2019

Carol L Shields, Sanika Udyaver, Lauren A Dalvin, Li-Anne S Lim, Hatice T Atalay, Chloe Khoo, Mehdi Mazloumi, Jerry A Shields

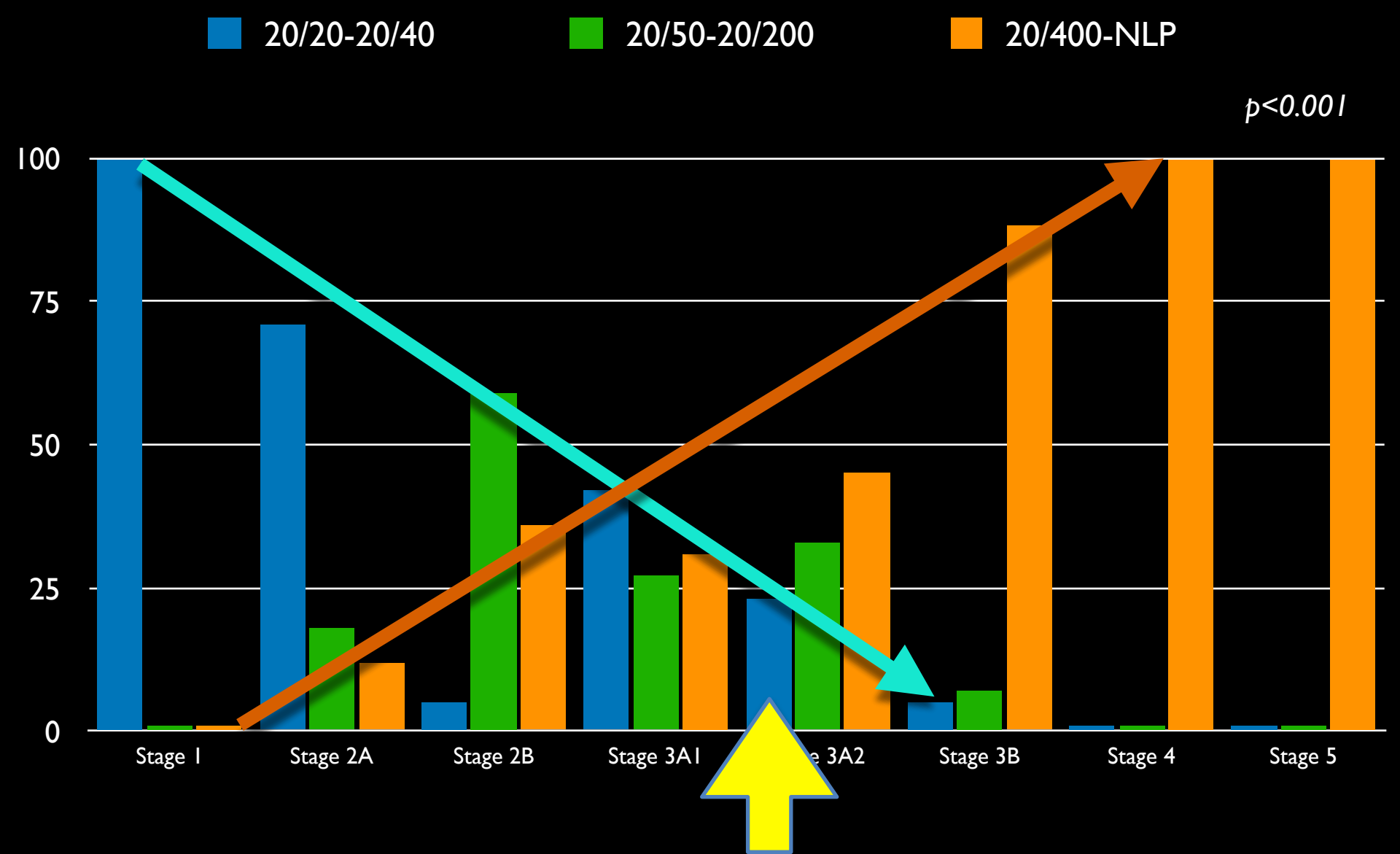
ABSTRACT

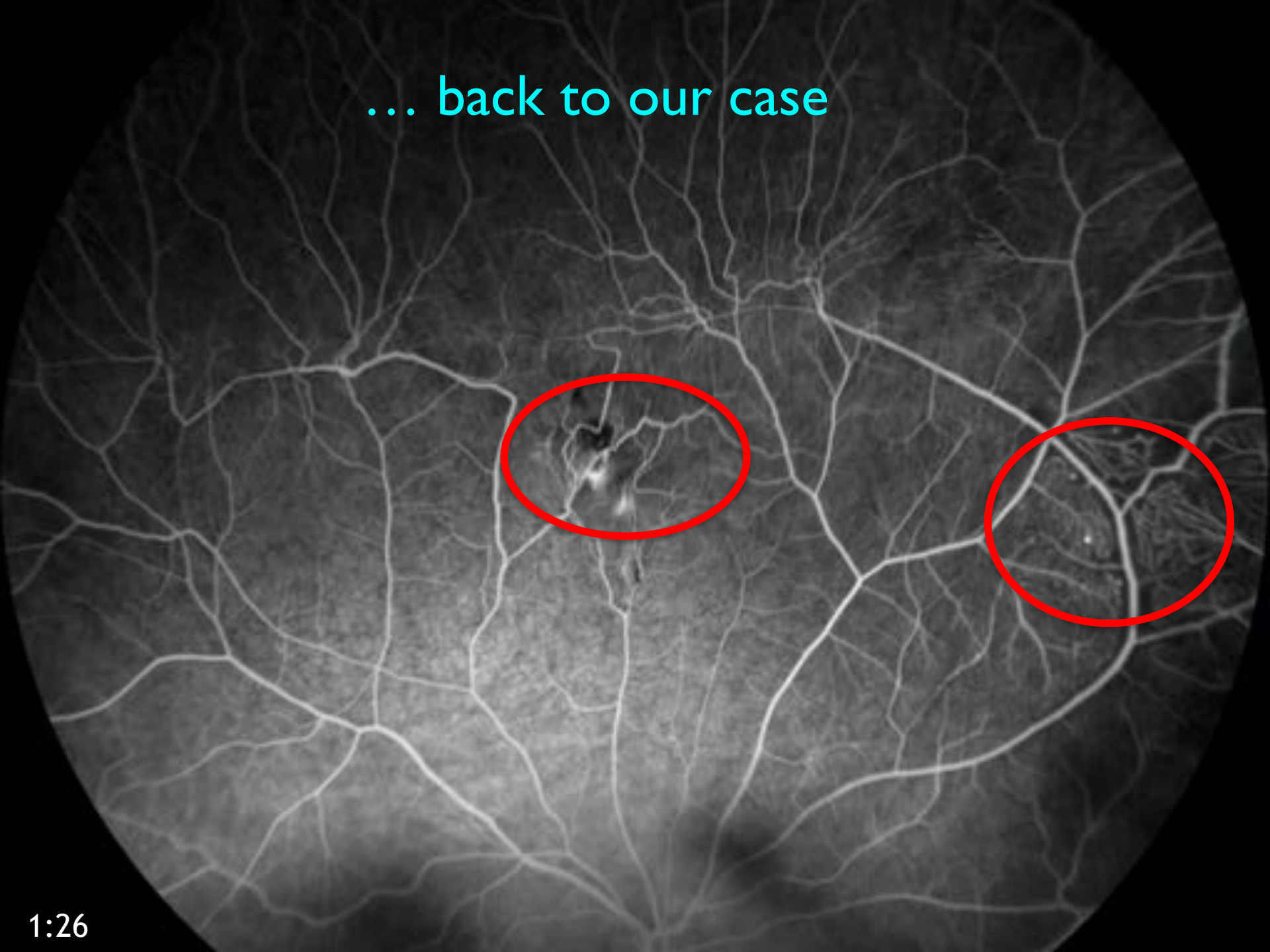
Purpose To assess visual outcomes of Coats disease by classification stage

at initial visit and indicated that vision outcome was '*dismal*', including 20/200–20/400 (n=2),

In 2000, Char reviewed 10 patients with Coats disease with mean of 2.4 years at initial visit and indicated that vision outcome was '*dismal*', including 20/200–20/400 (n=2), counting fingers (n=2), light perception (n=1) and no light perception (n=5).[4]

Coats disease: Visual outcome




… back to our case
1:26

Summary

- 11 yowm
- presented with CME
- Coats disease
- treated laser
- anticipate fair visual outcome