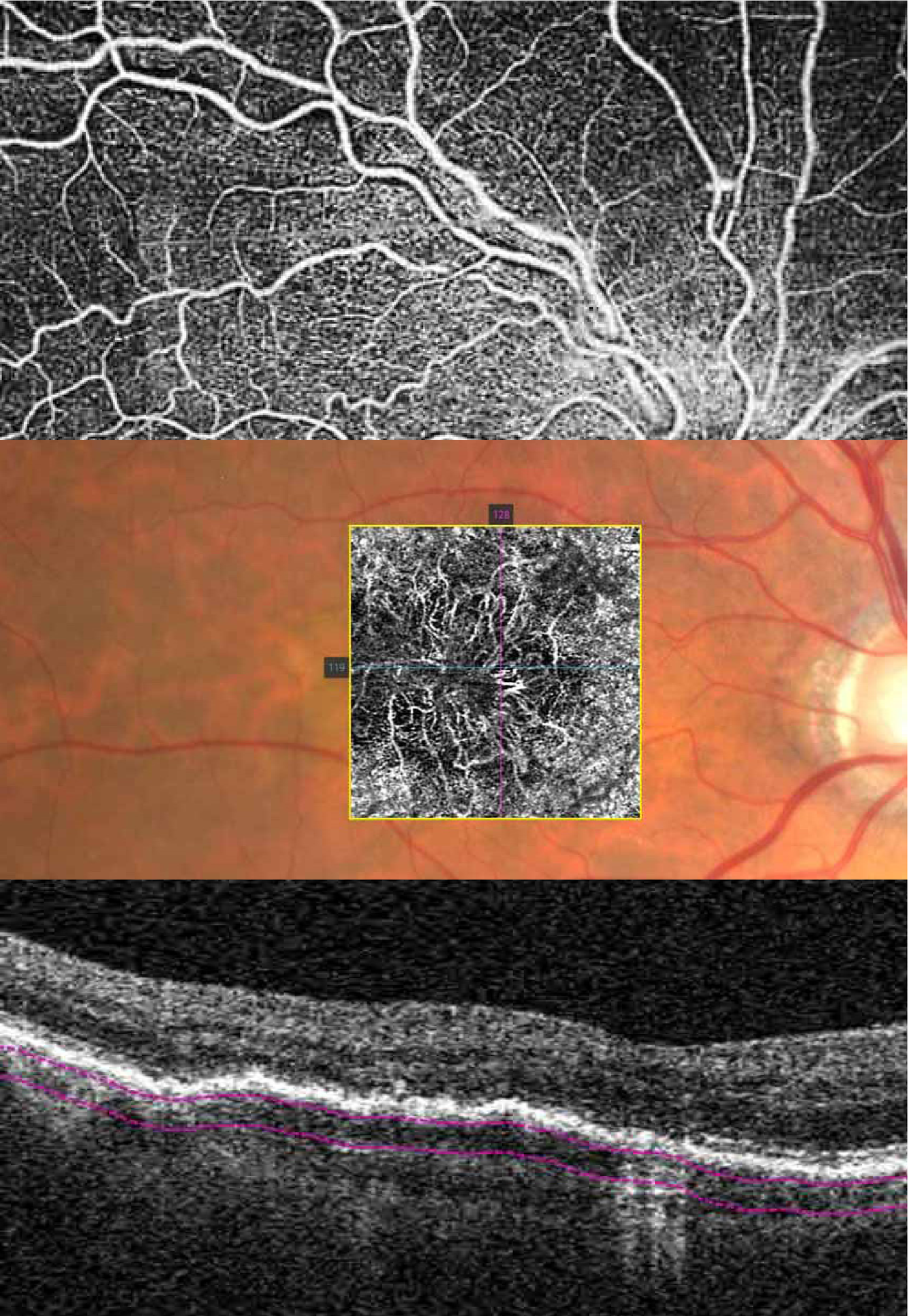


Interpretation Guide

OCT Angiography and integrated diagnostic imaging

ZEISS

X

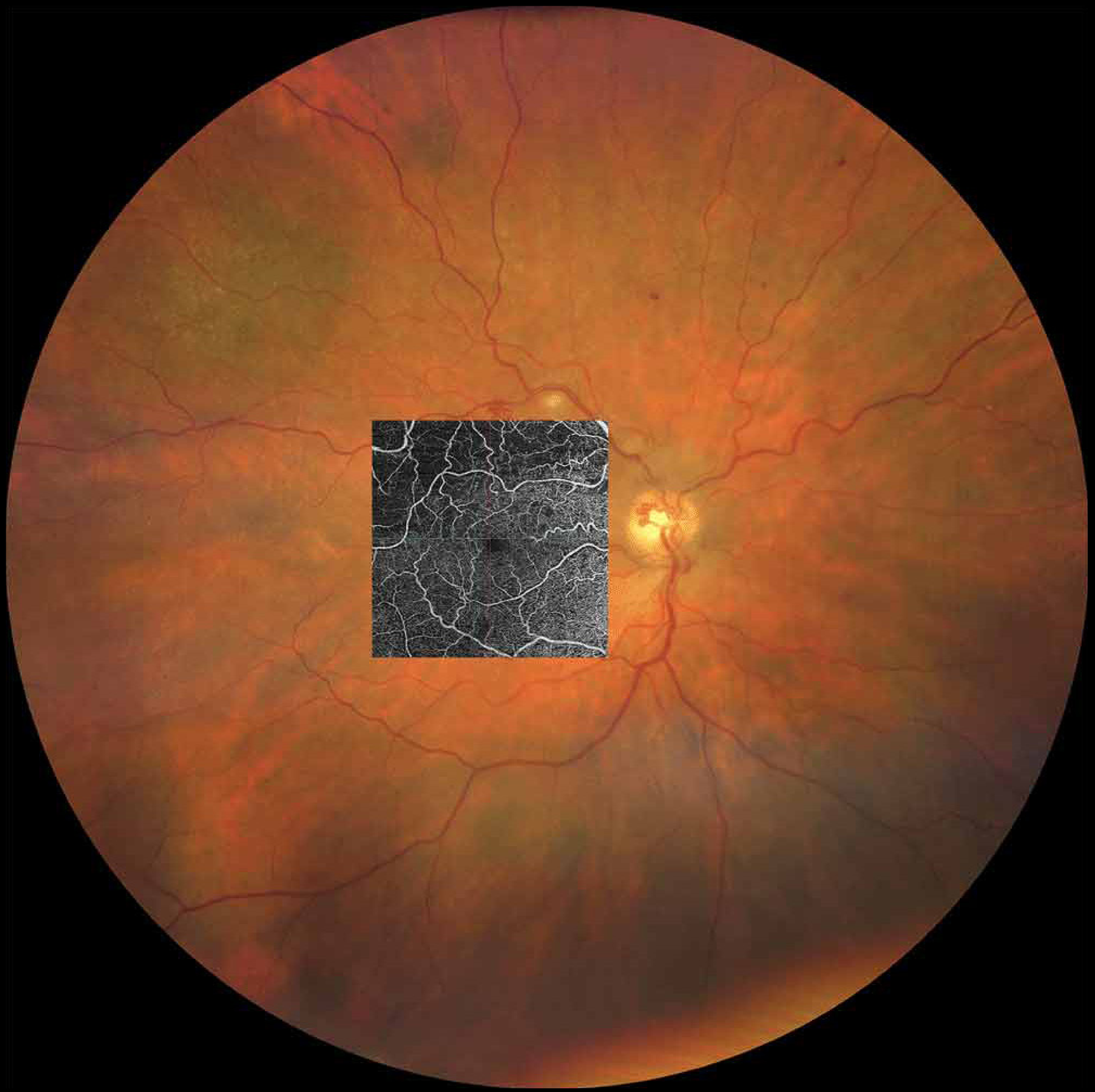
Helpful Hints

More » Click to advance.

1 Click on the number icons to reveal more information.

Click on the magnifying glass symbol to see an enlarged version of the image.

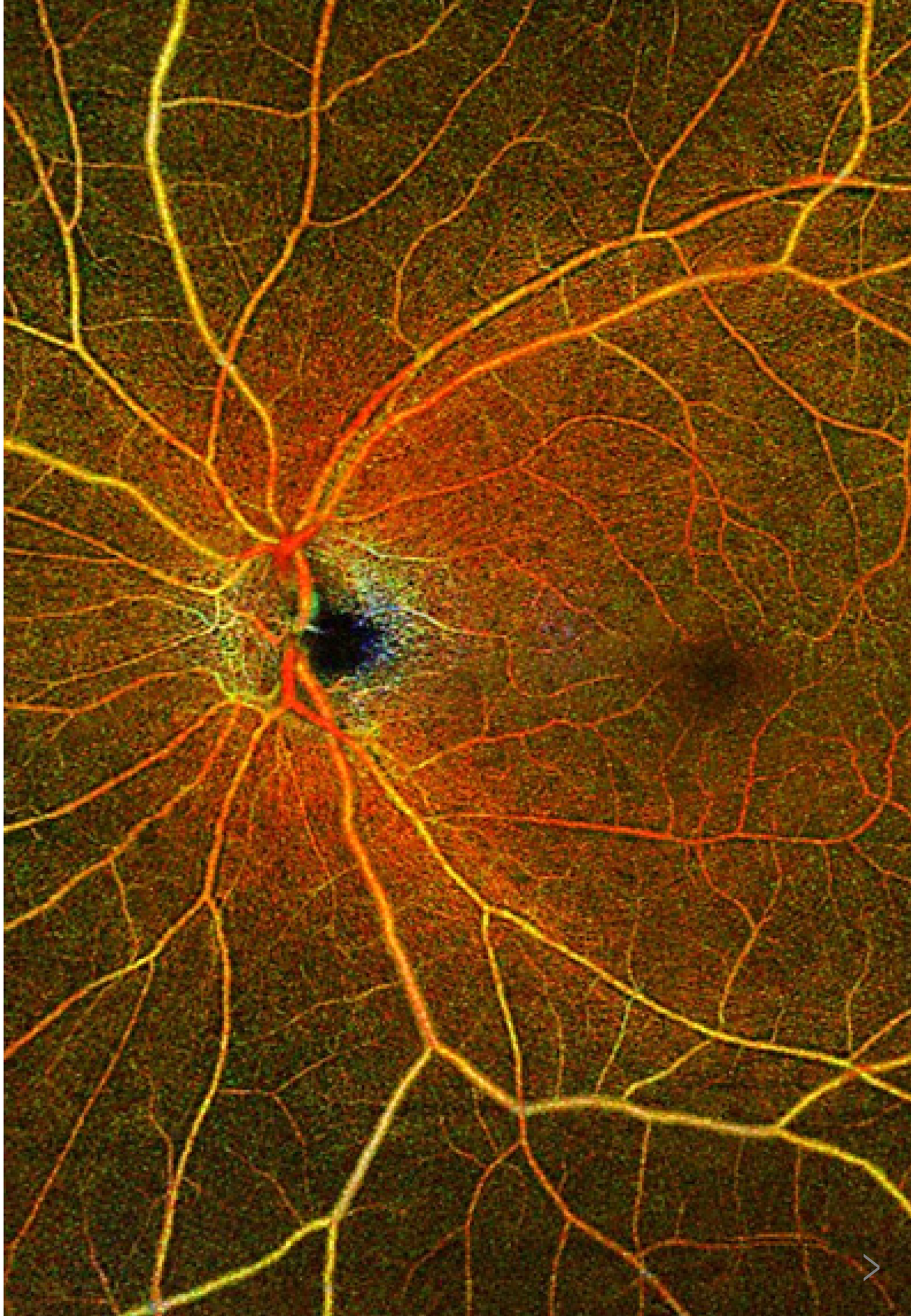
X Click to close.



Multi-modality retinal imaging with OCT Angiography (OCTA) enables you to capture ultra-clear images of retinal and choroidal microvasculature in seconds.

As a clinician, this allows you to have a new level of confidence when suggesting a treatment regimen that is customized to your patient's individual needs.

In eye clinics worldwide, multi-modality in diagnostics and imaging is fast becoming the standard of care.



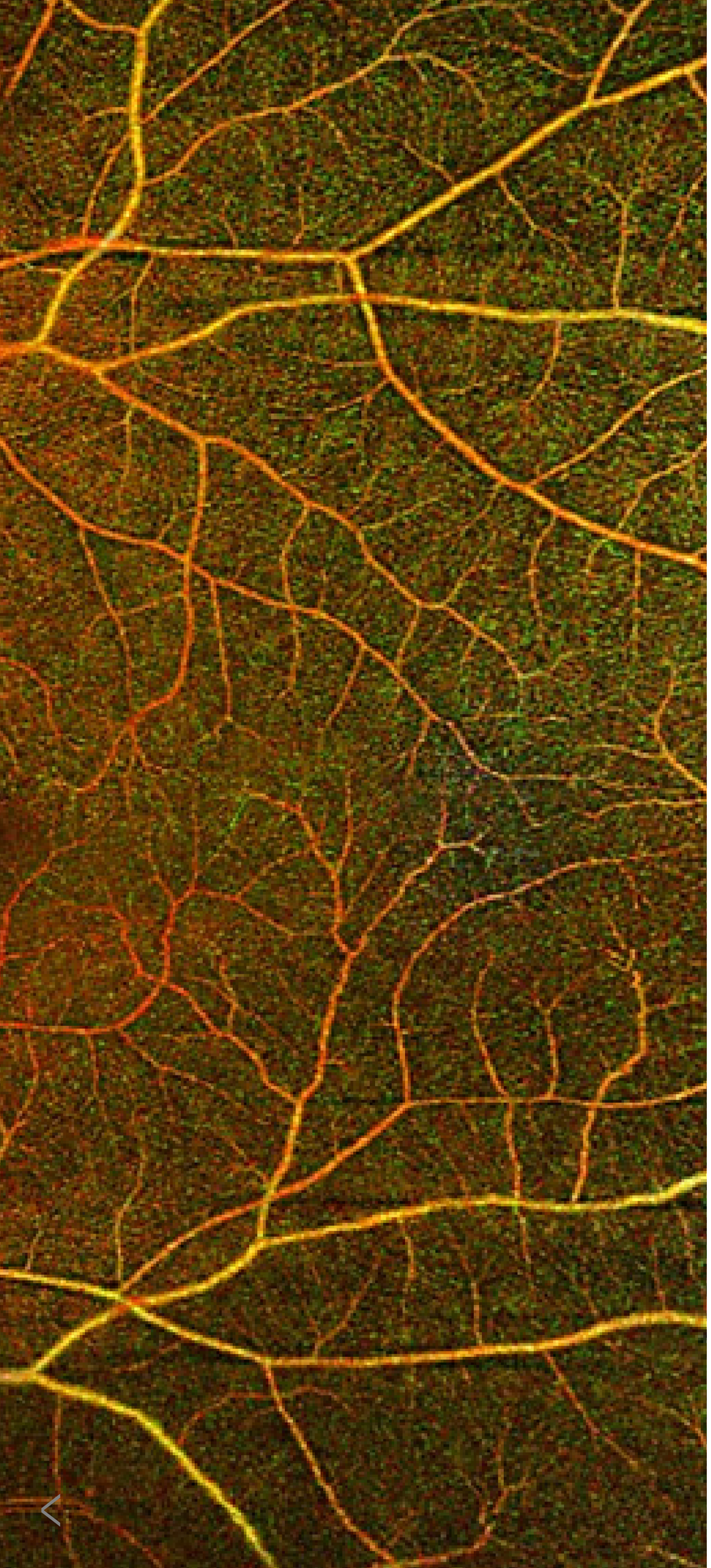
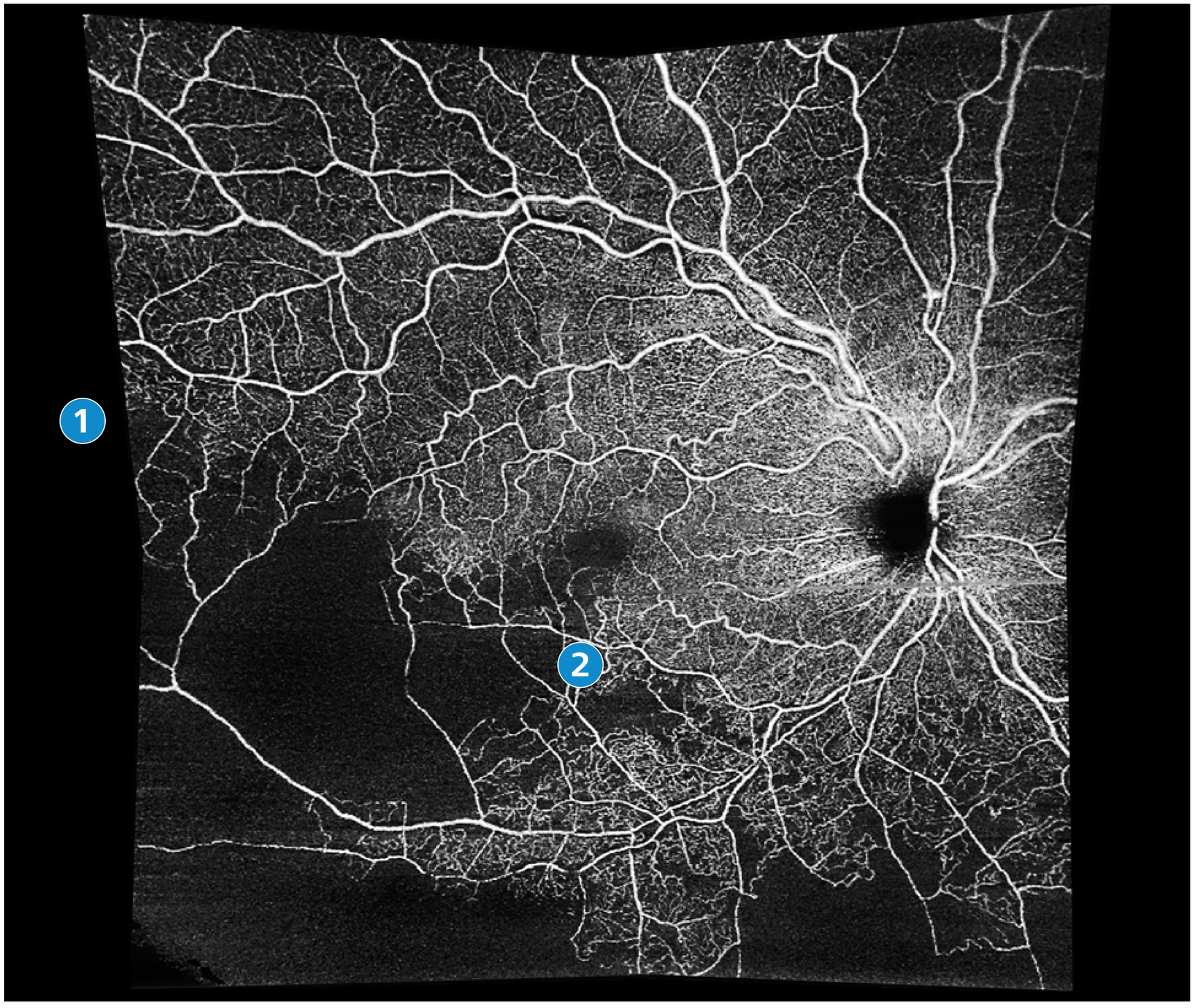


Table of Contents

Branch Retinal Vein Occlusion (BRVO)

Patient History
53-year-old female

Summary
In contrast to a single 6x6 mm or 8x8 mm scan, the AngioPlex® Montage—with up to a 50-degree field of view—is able to reveal the extent of ischemia, providing a more complete clinical picture.



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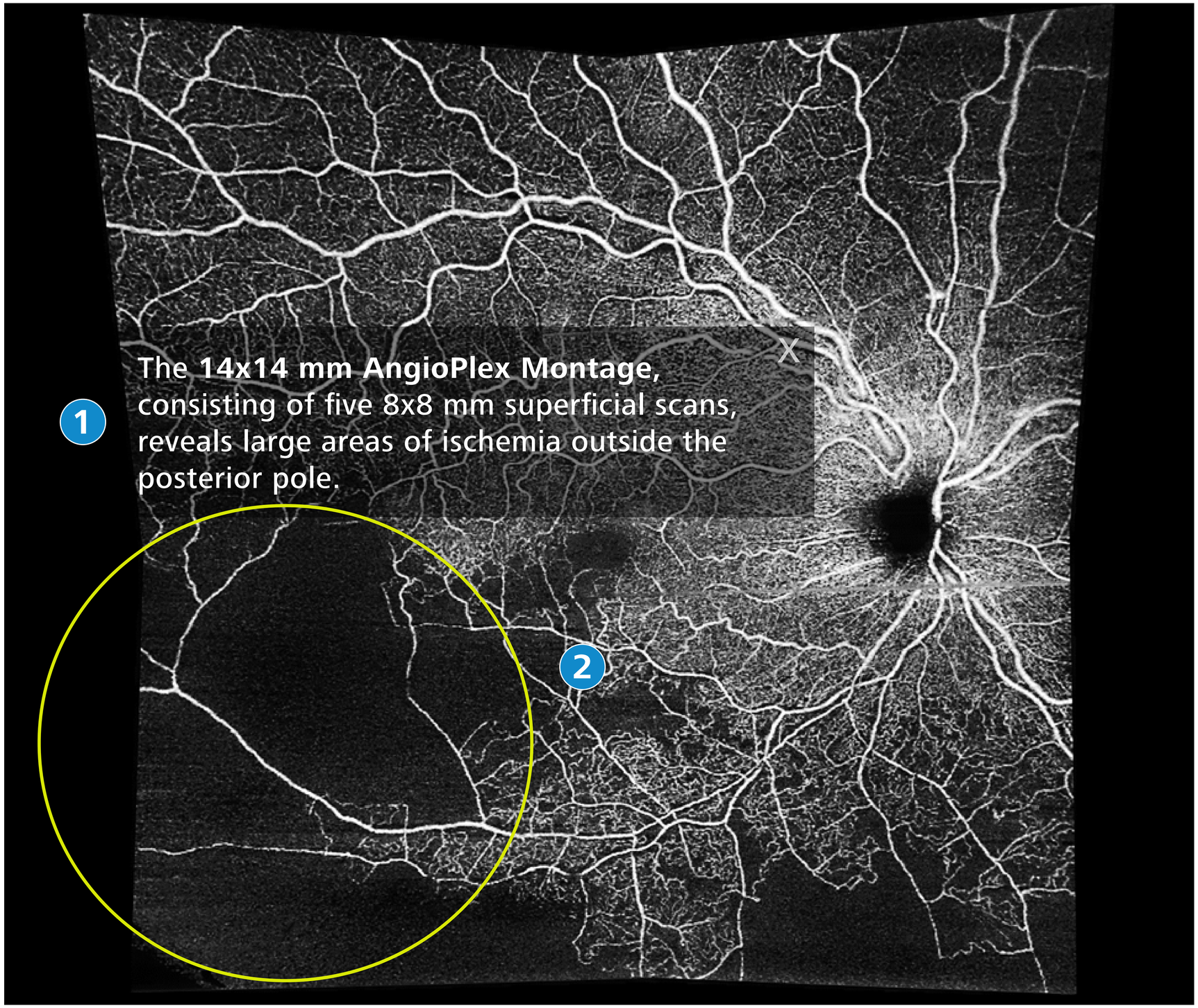

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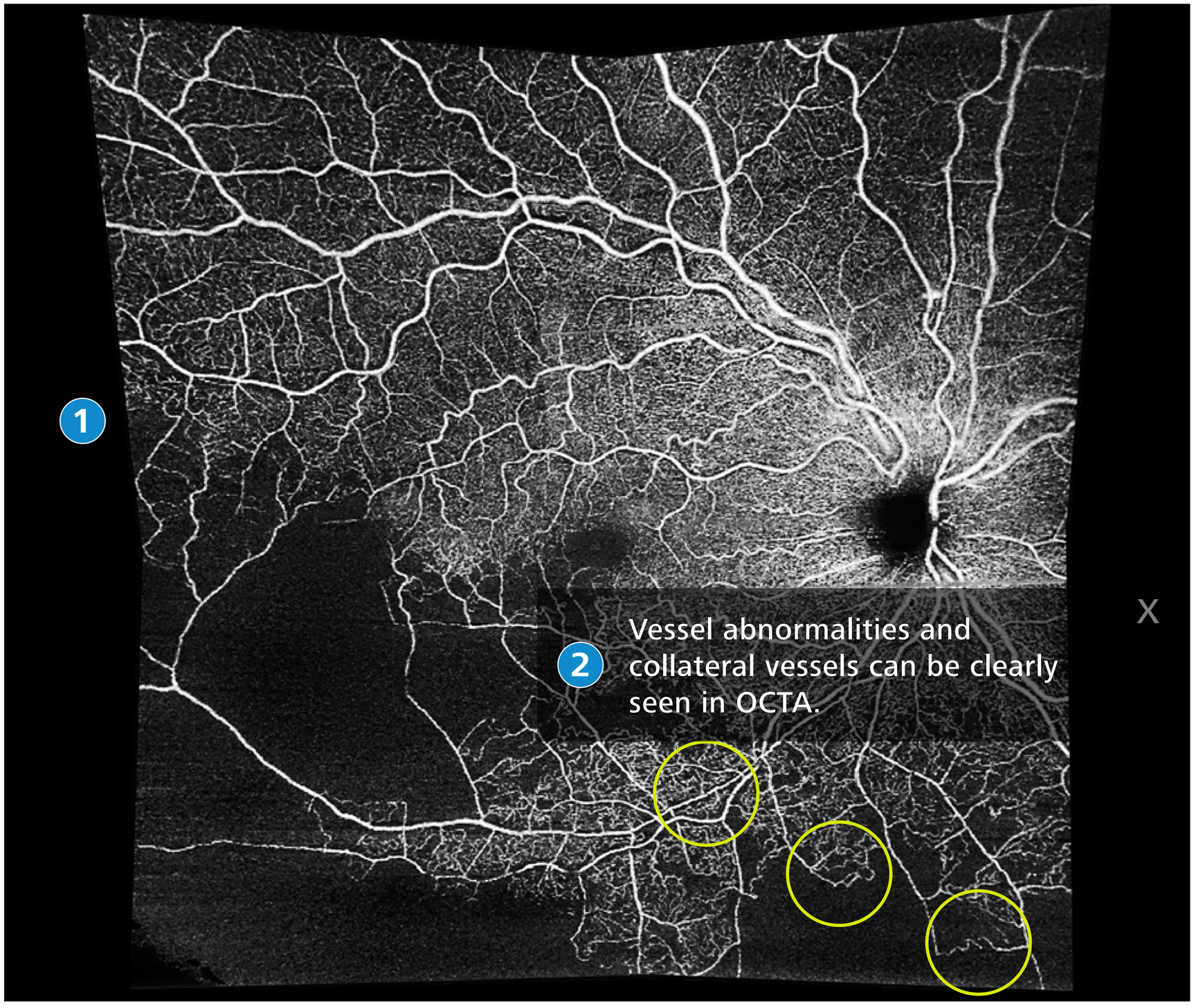

Neovascular Age-related Macular Degeneration (AMD)

Patient History

Patient presented with a history of neovascular AMD in the right eye, which has been treated with anti-VEGF.

More »

Neovascular Age-related Macular Degeneration (AMD)

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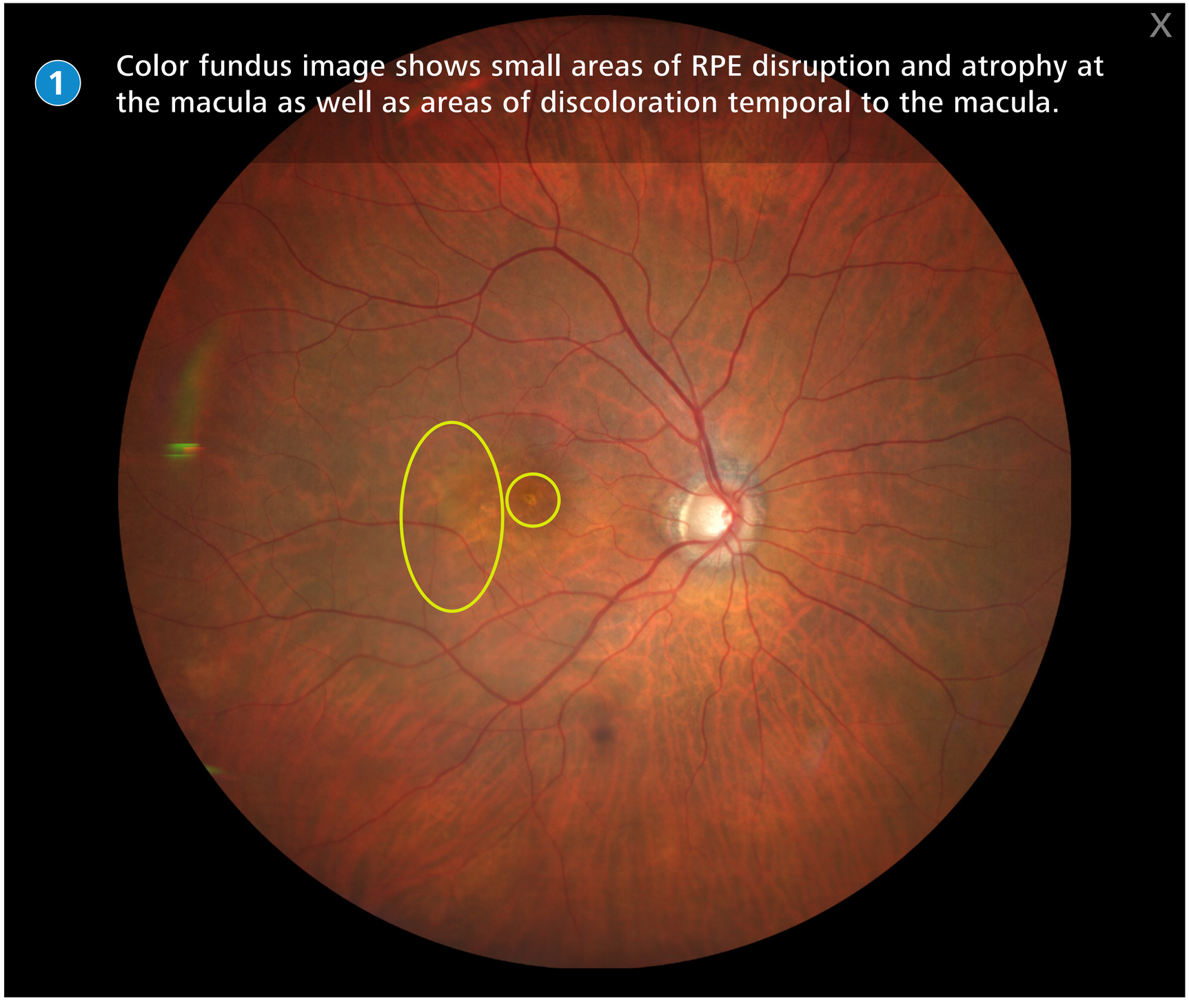
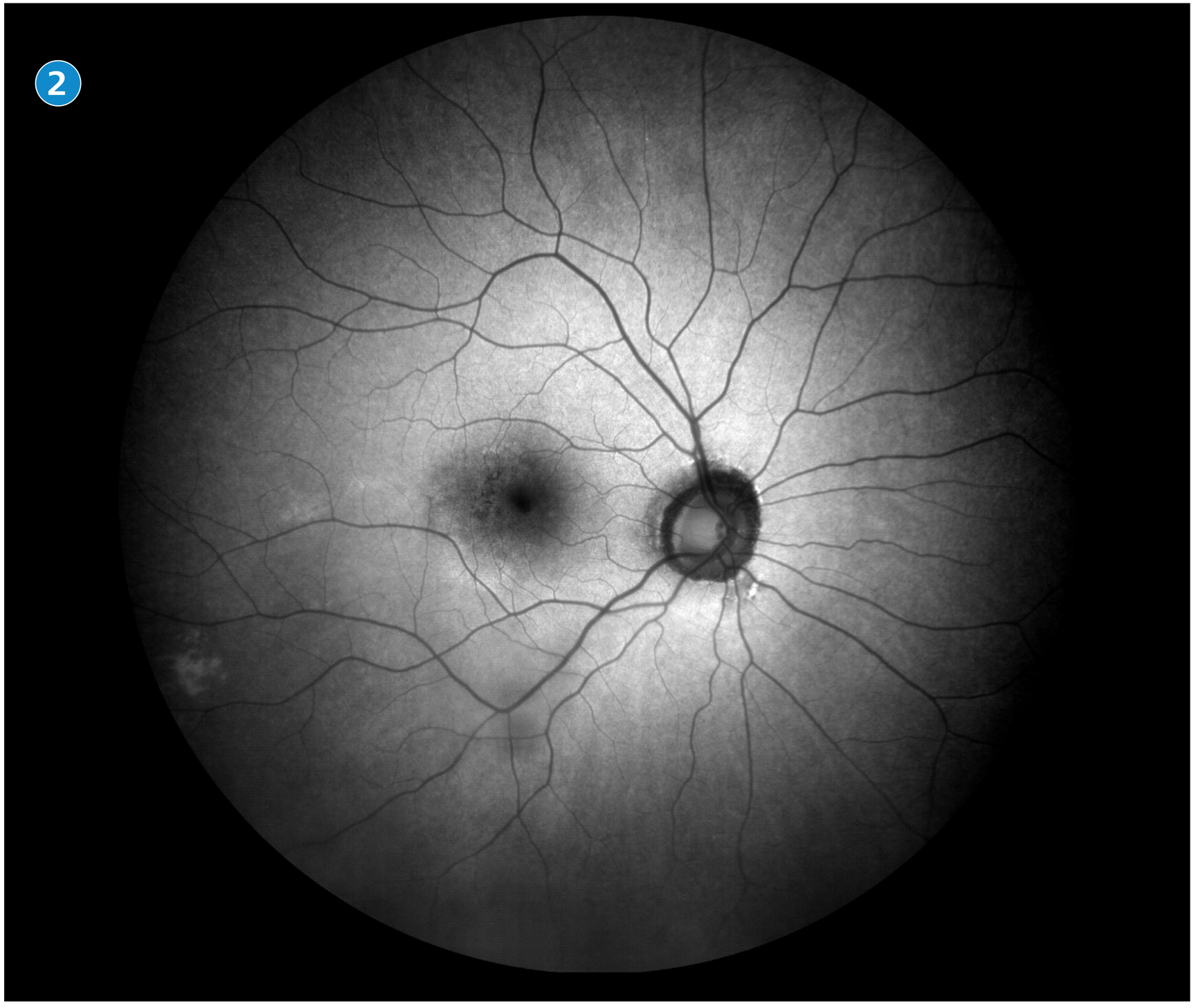
More »



Neovascular AMD

Fundus autofluorescence imaging (FAF) is indicated in geographic atrophy to document the location and size of disease.

More »



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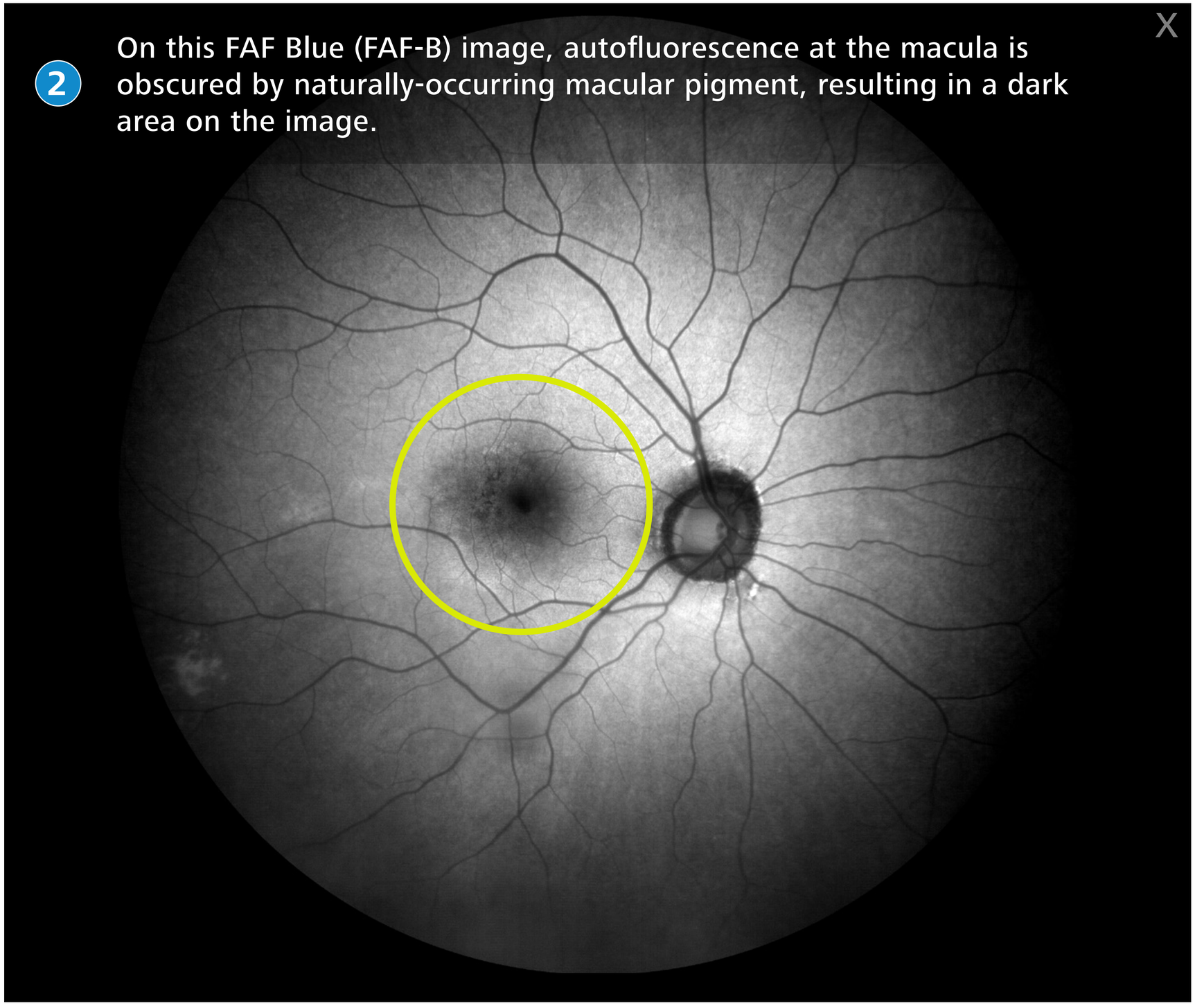
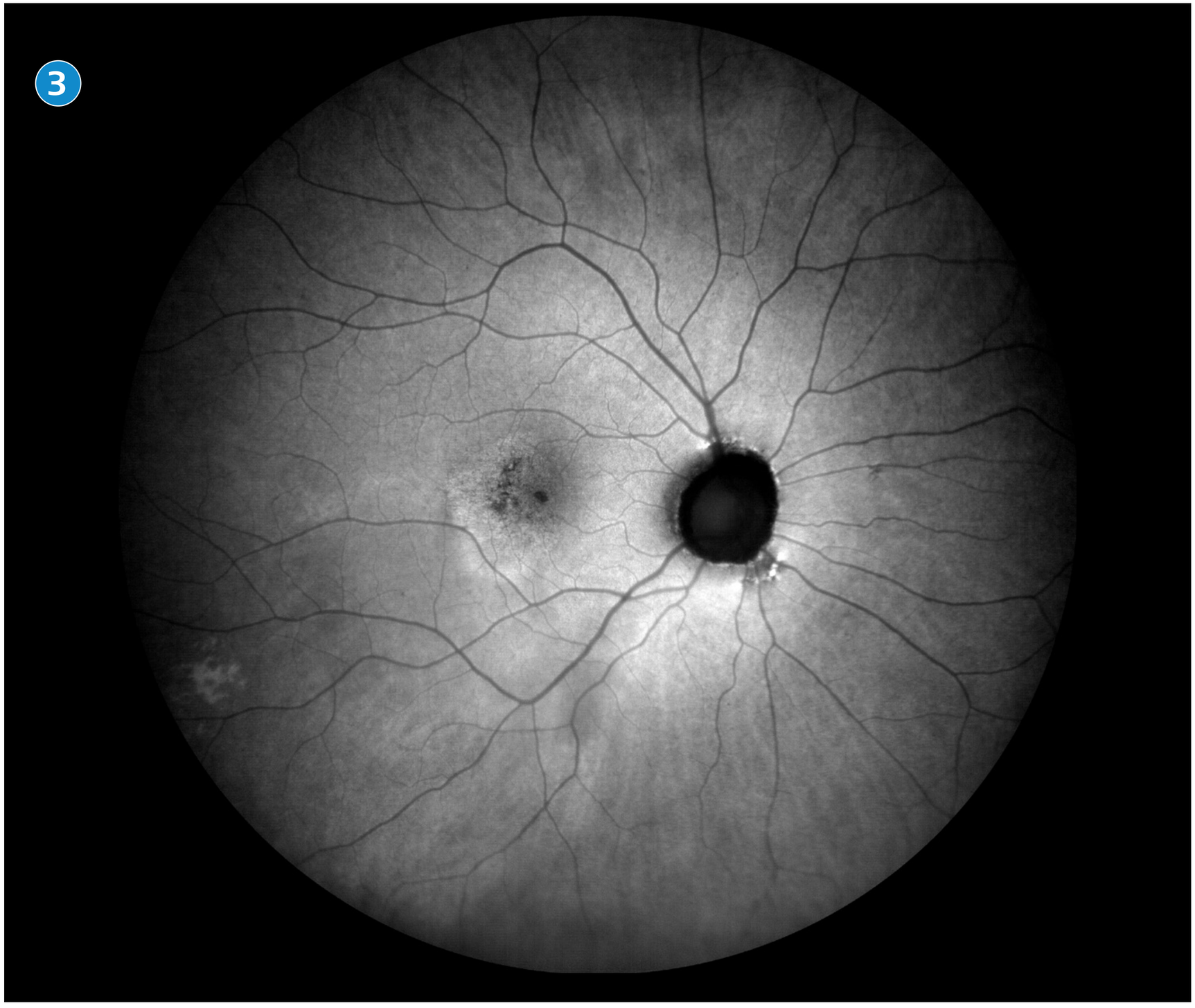
More »



Neovascular AMD

FAF Green (FAF-G) is better at visualizing the macular area, since it is not affected by macular pigment.

More »



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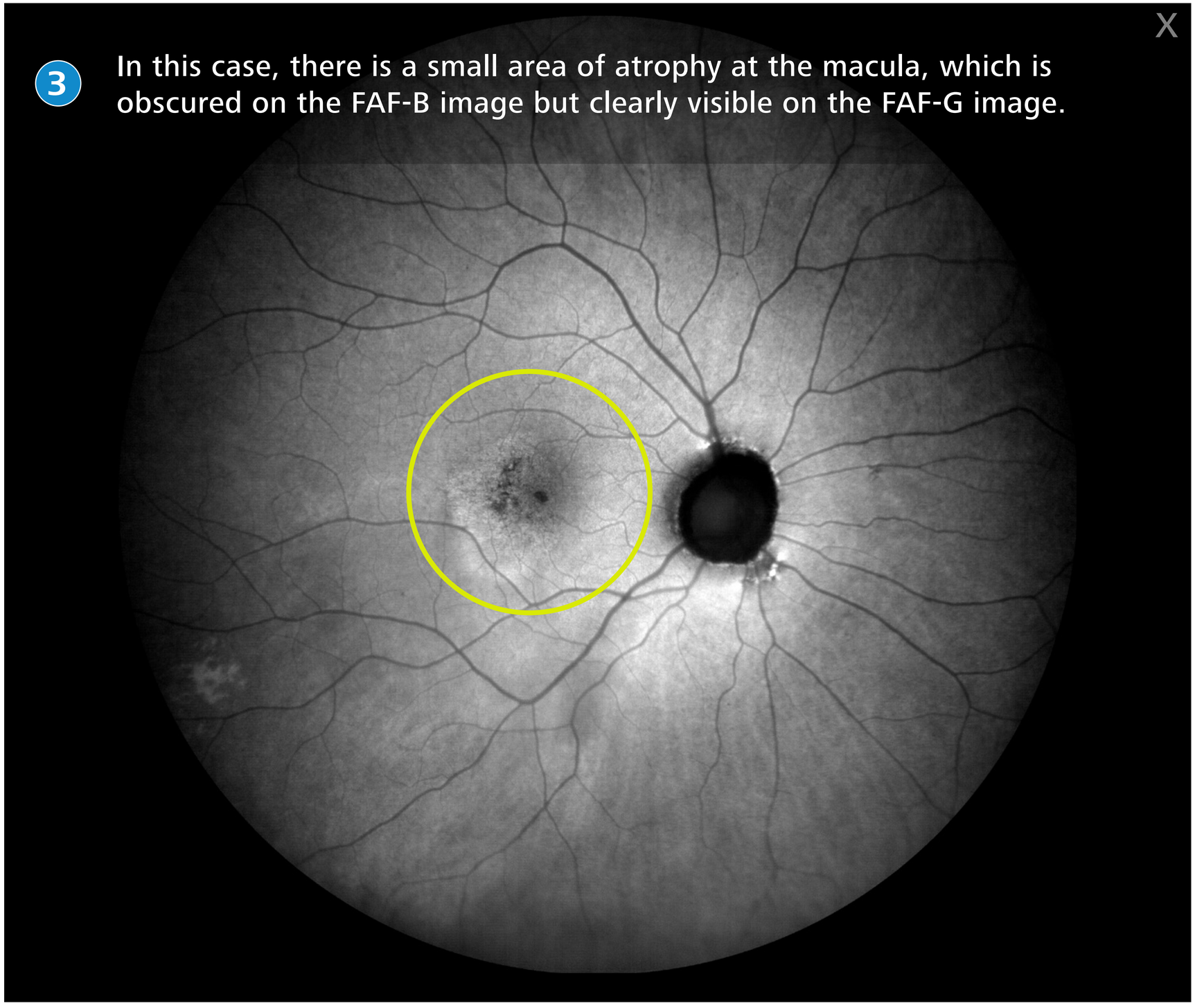
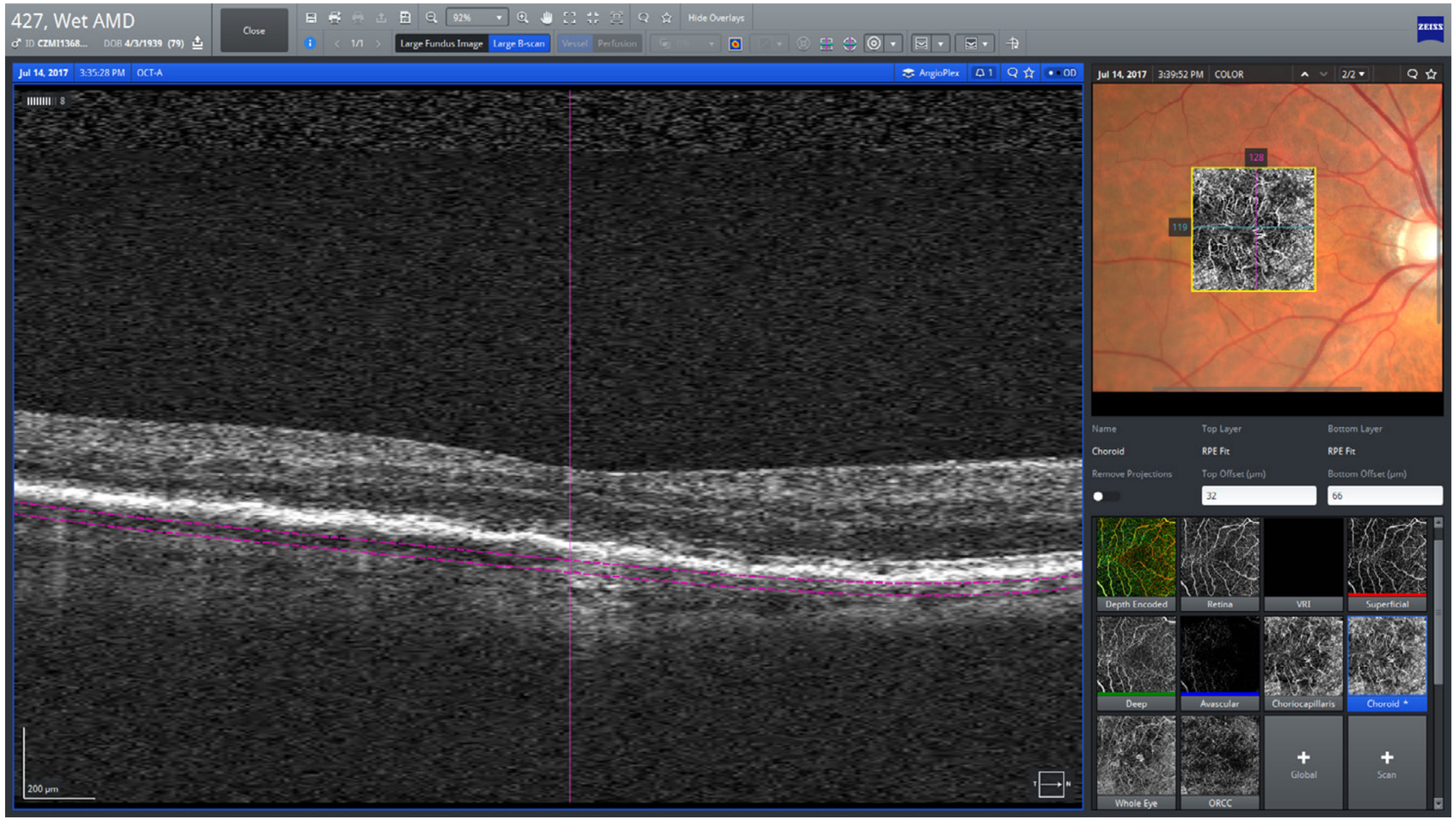


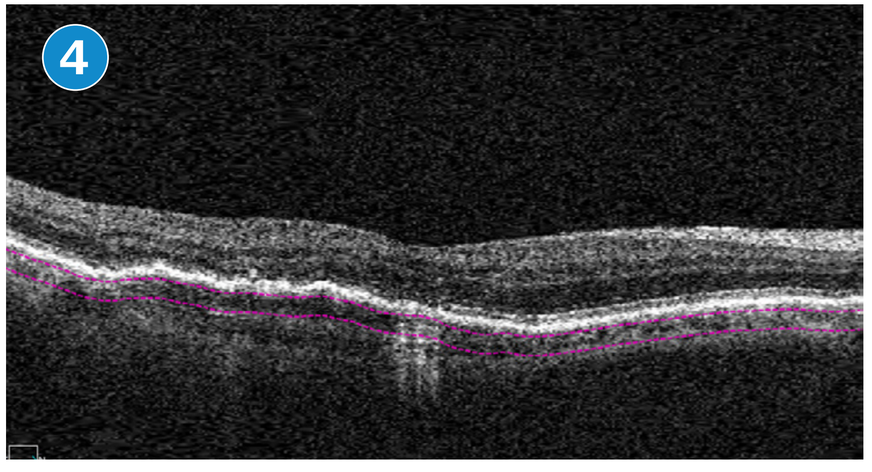
Neovascular AMD

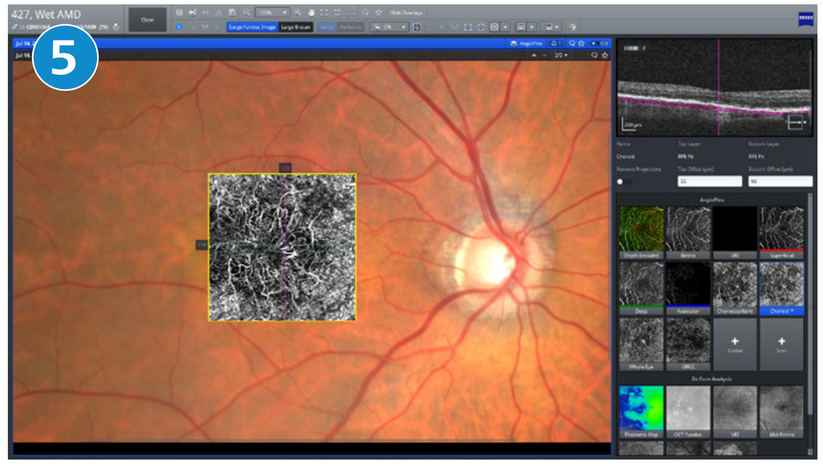
Summary

Integrated diagnostic imaging allows the clinician to quickly monitor all aspects of the disease, from accurately documenting the location and the extent of geographic atrophy using color and FAF images, to monitoring for subretinal fluid with OCT.

With the addition of non-invasive OCTA, clinicians can monitor CNV with more frequent follow ups and appropriate, timely referrals when needed.







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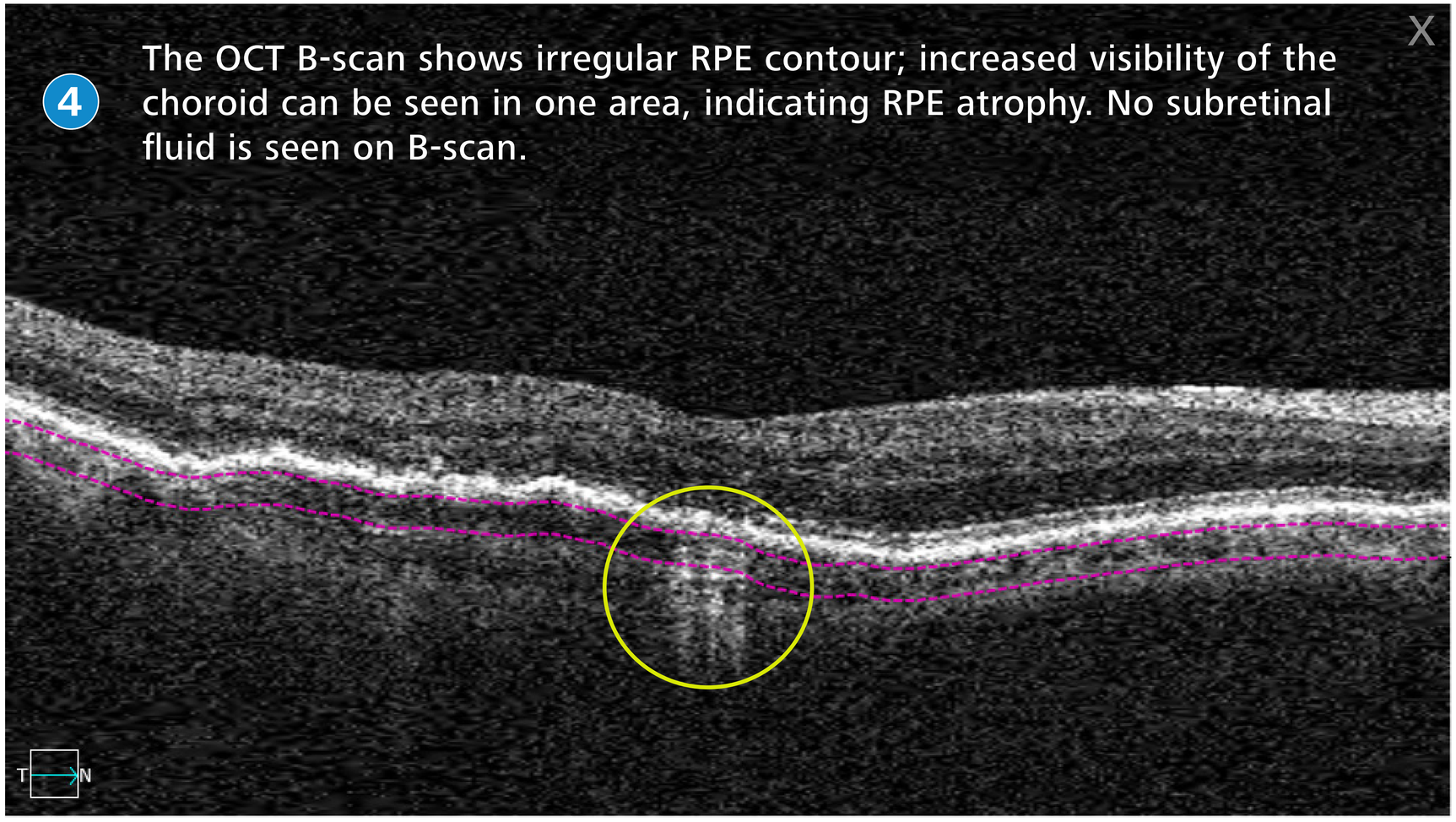

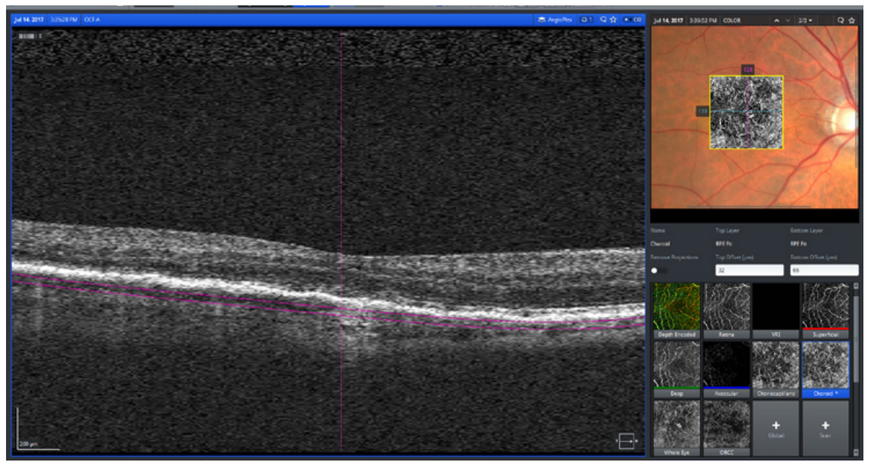

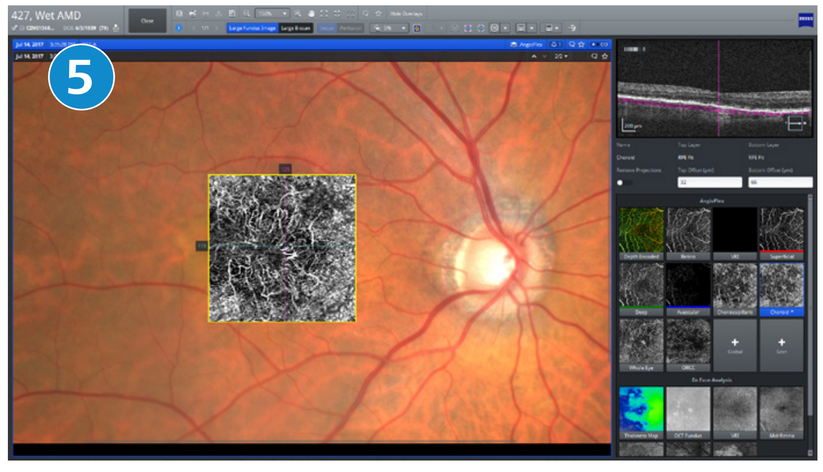

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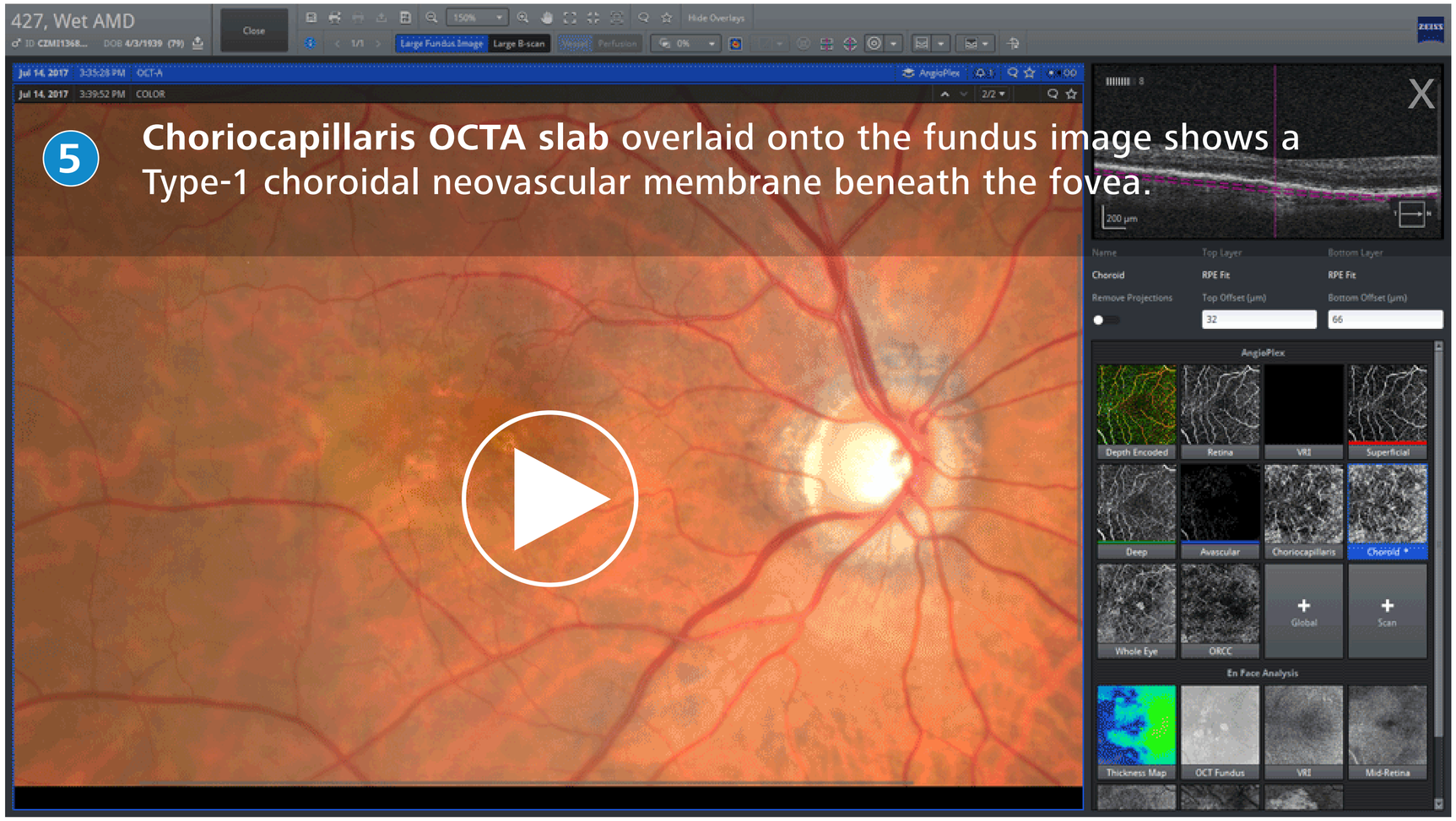

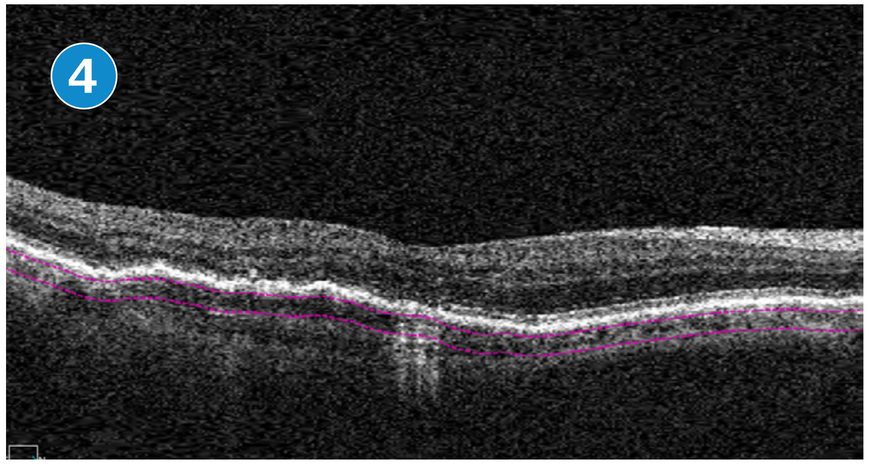

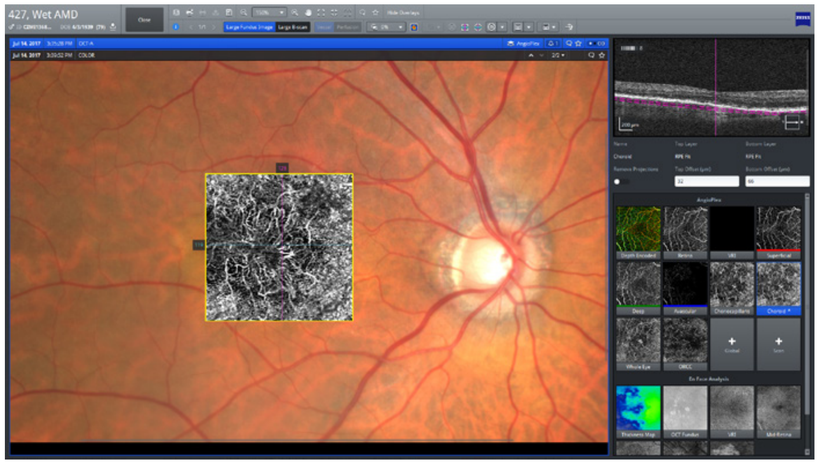

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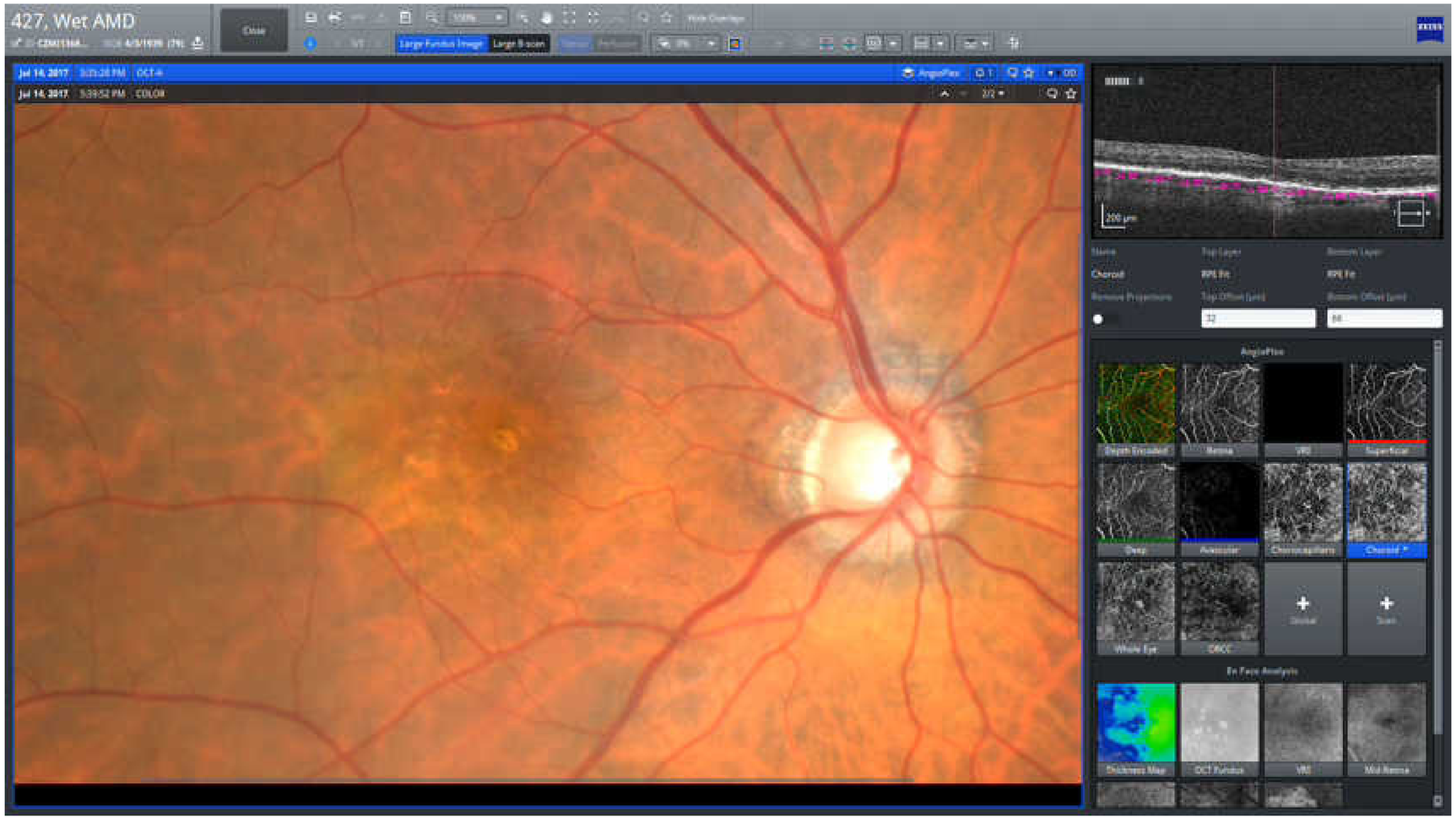
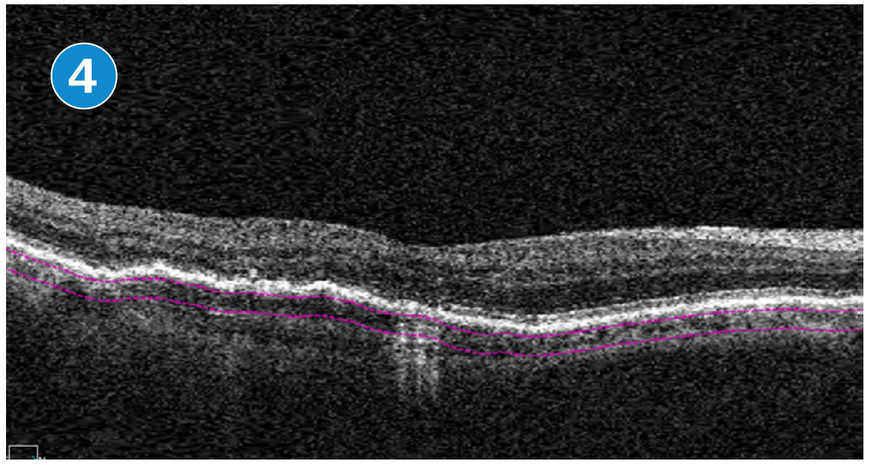




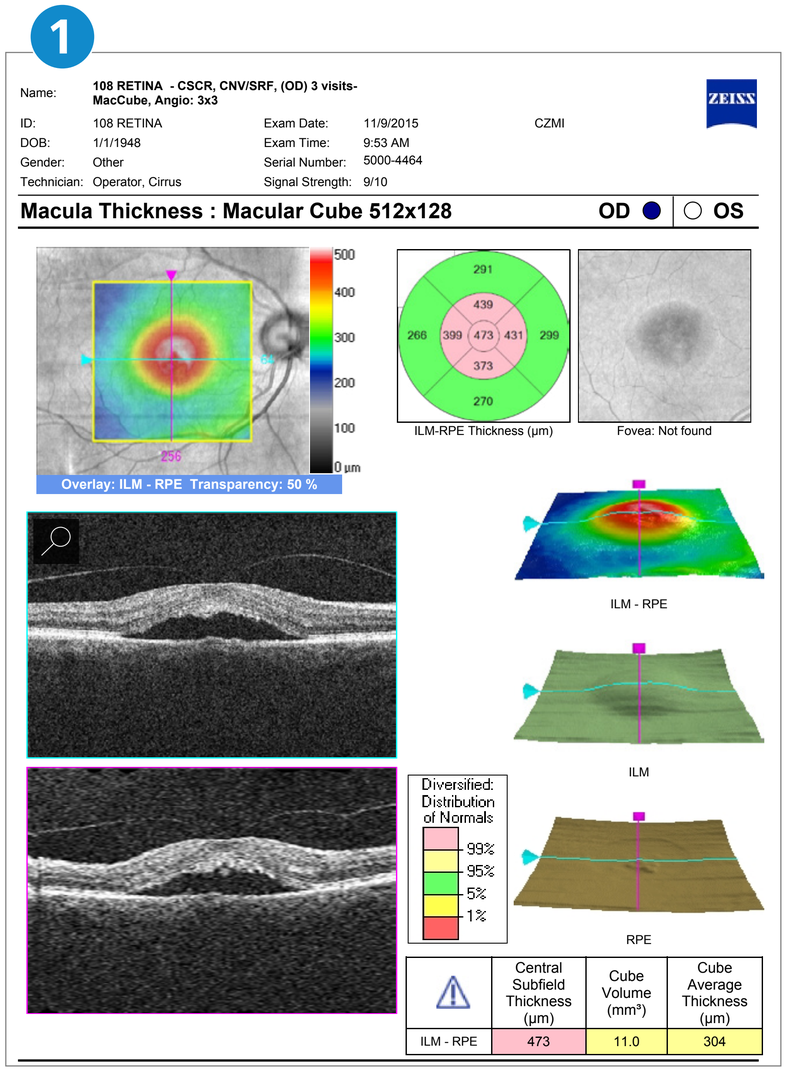
Central Serous Chorioretinopathy (CSC)

Patient History

70-year-old male. Patient presented with complaints of decreased vision in the right eye.

More »

1



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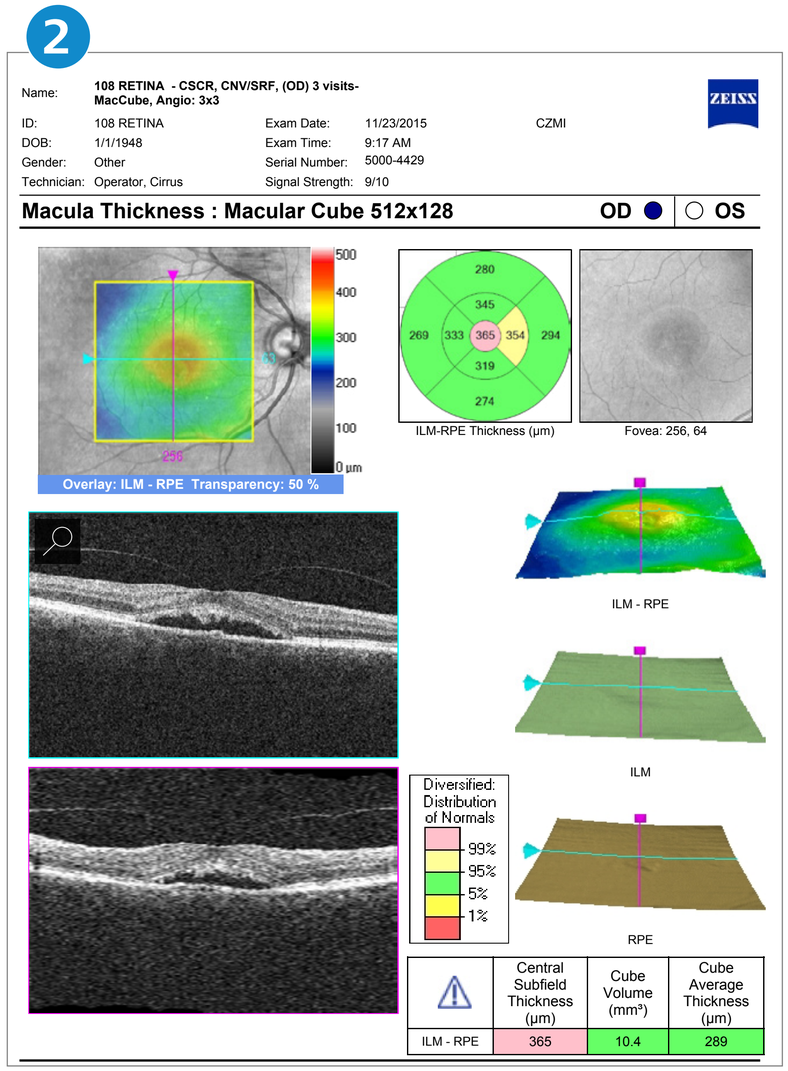

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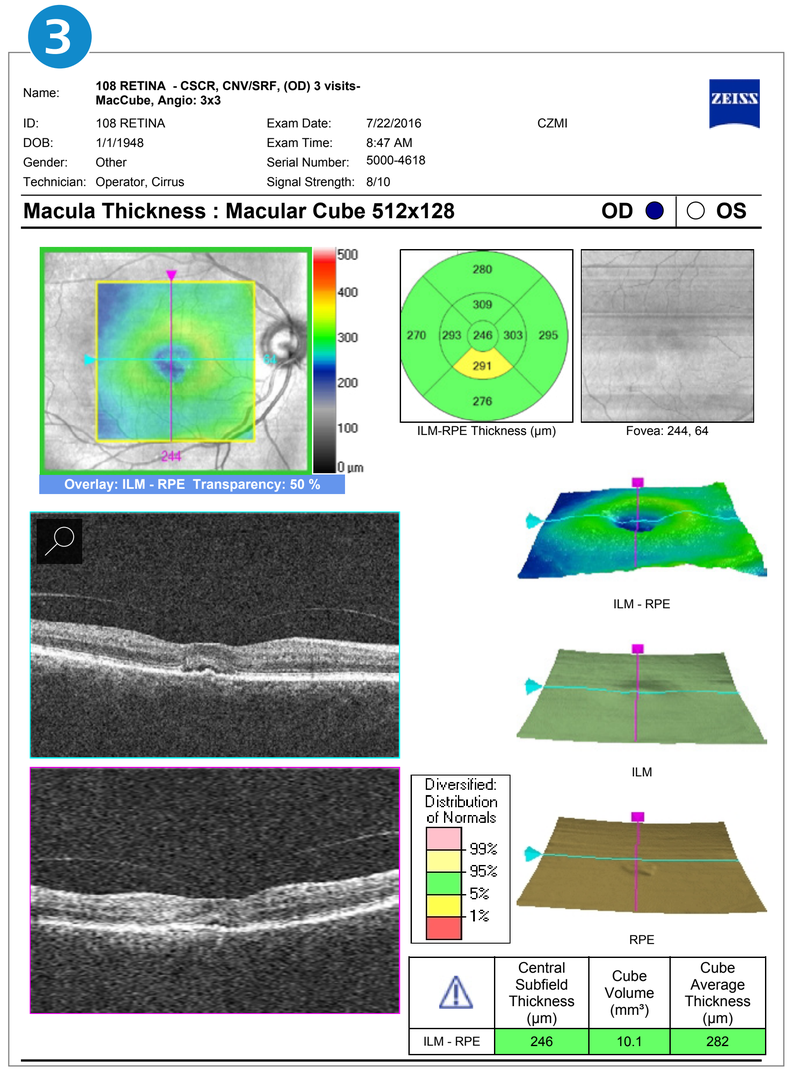

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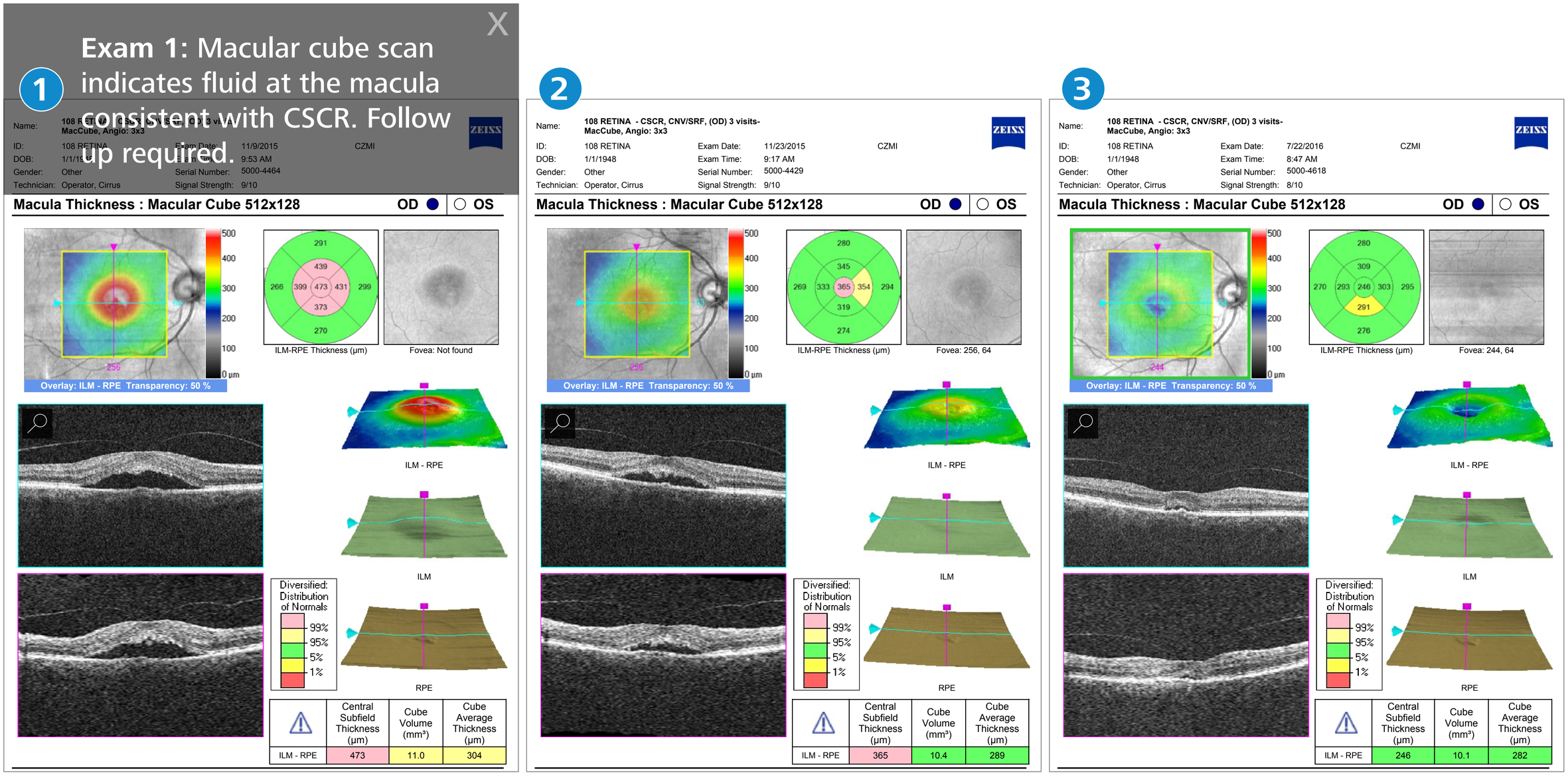

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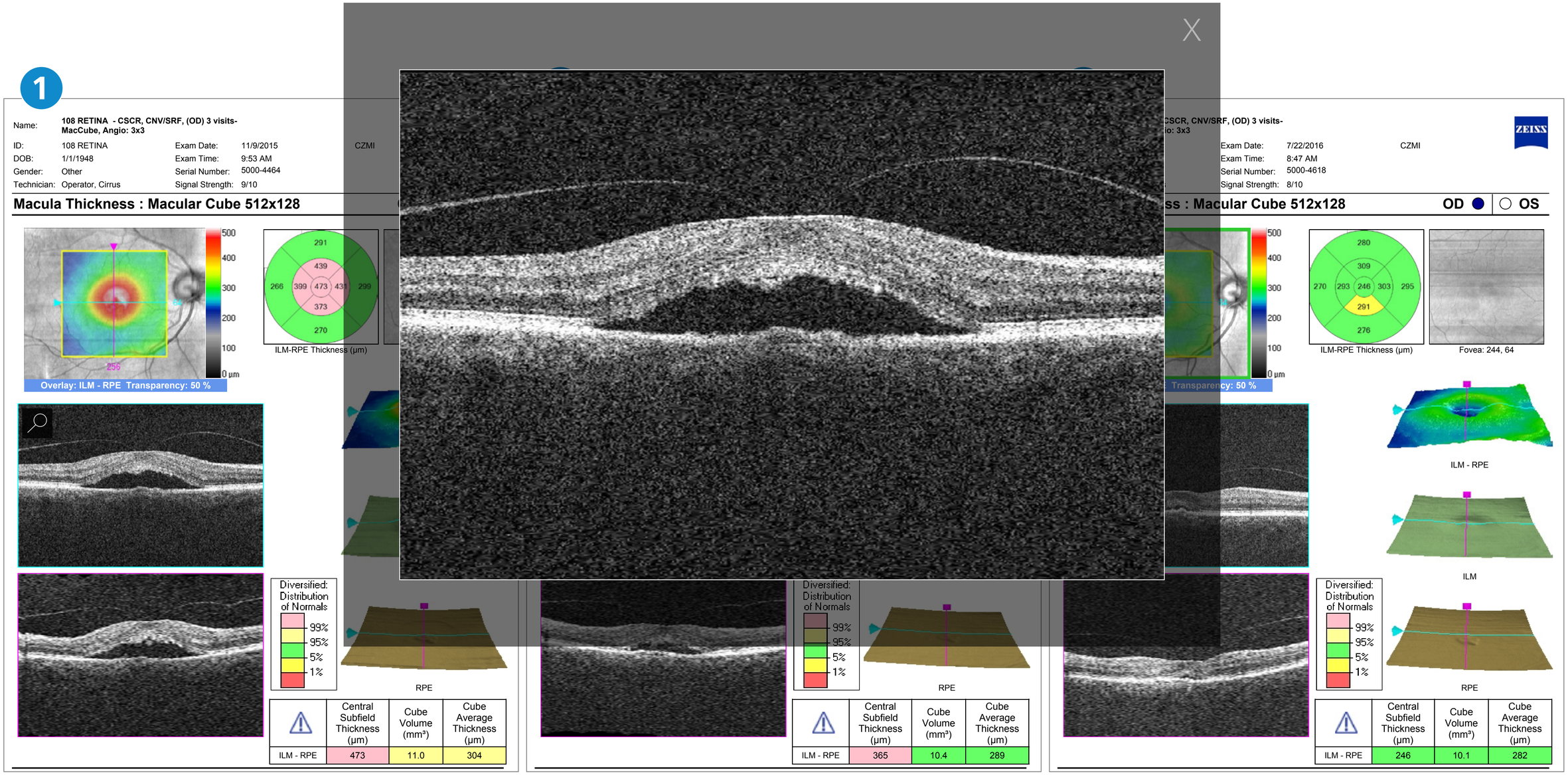

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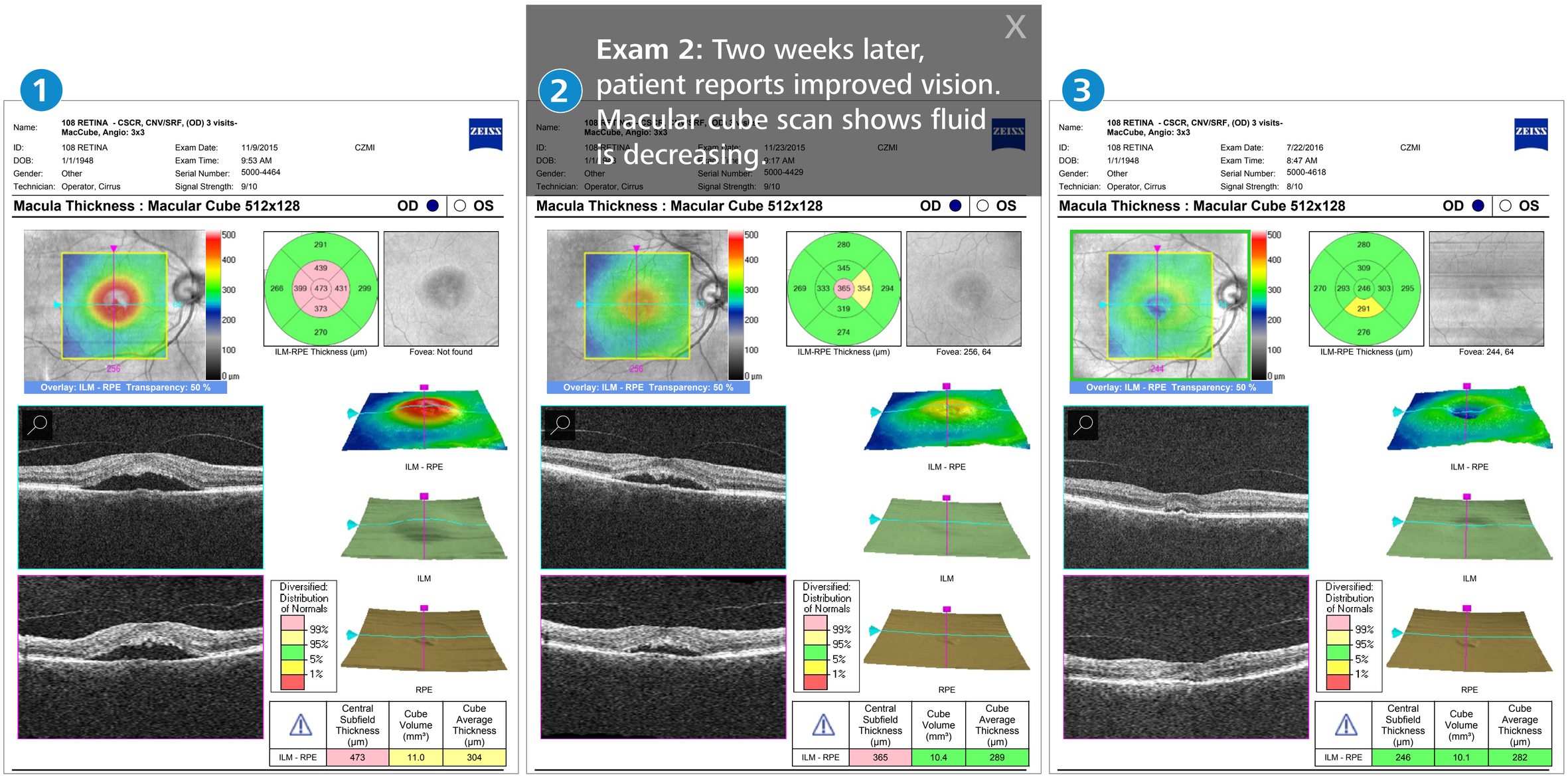

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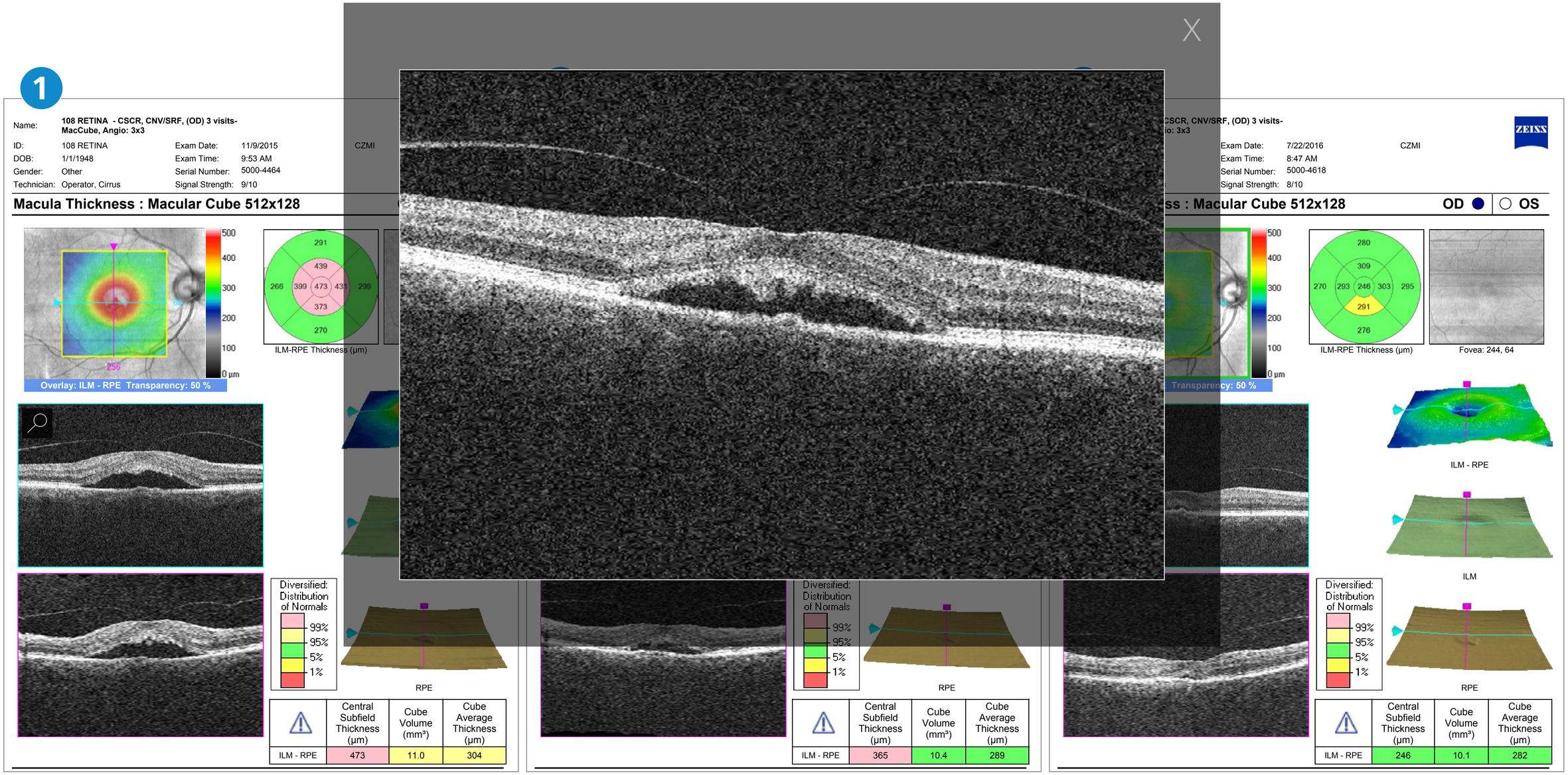

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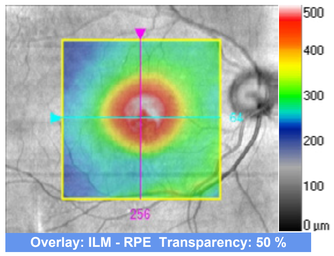
More »

1

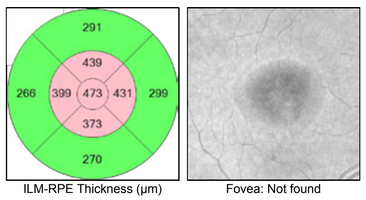
Name: 108 RETINA - CSCR, CNV/SRF, (OD) 3 visits- MacCube, Angio: 3x3

ID: 108 RETINA
DOB: 1/1/1948
Gender: Other
Technician: Operator, Cirrus
Exam Date: 11/9/2015
Exam Time: 9:53 AM
Serial Number: 5000-4464
Signal Strength: 9/10
CZMI

Macula Thickness : Macular Cube 512x128 OD ● ○ OS

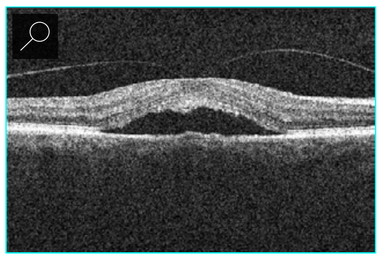


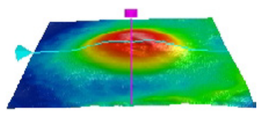
Overlay: ILM - RPE Transparency: 50 %



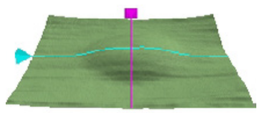
ILM-RPE Thickness (µm)

Fovea: Not found

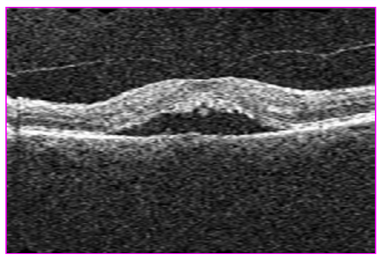


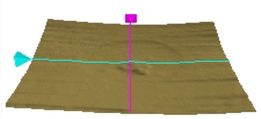


ILM - RPE



ILM





RPE

Diversified: Distribution of Normals
99%
95%
5%
1%

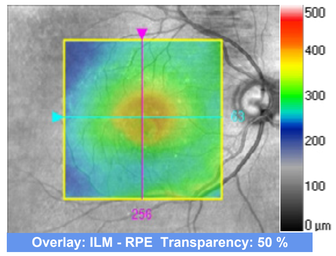
	Central Subfield Thickness (µm)	Cube Volume (mm³)	Cube Average Thickness (µm)
ILM - RPE	473	11.0	304

2

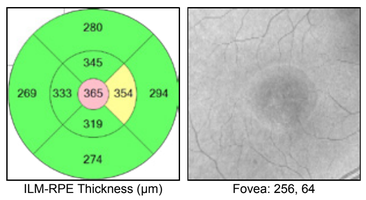
Name: 108 RETINA - CSCR, CNV/SRF, (OD) 3 visits- MacCube, Angio: 3x3

ID: 108 RETINA
DOB: 1/1/1948
Gender: Other
Technician: Operator, Cirrus
Exam Date: 11/23/2015
Exam Time: 9:17 AM
Serial Number: 5000-4429
Signal Strength: 9/10
CZMI

Macula Thickness : Macular Cube 512x128 OD ● ○ OS

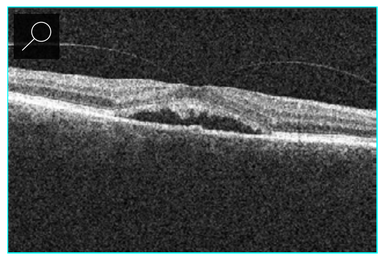


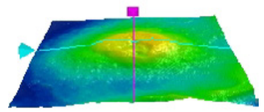
Overlay: ILM - RPE Transparency: 50 %



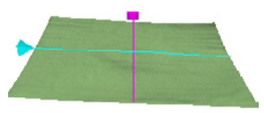
ILM-RPE Thickness (µm)

Fovea: 256, 64





ILM - RPE



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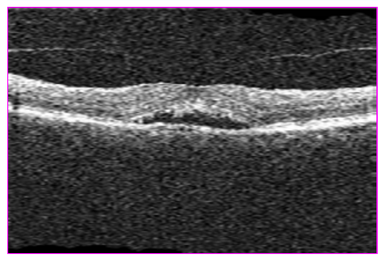
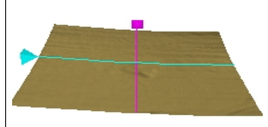




RPE

Diversified: Distribution of Normals
99%
95%
5%
1%

	Central Subfield Thickness (µm)	Cube Volume (mm³)	Cube Average Thickness (µm)
ILM - RPE	365	10.4	289

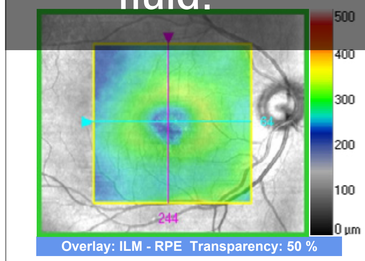
3

Exam 3: Eight months later, patient reports normal vision. Macular cube scan shows some disruption. B-scan also shows small amount of remaining fluid.

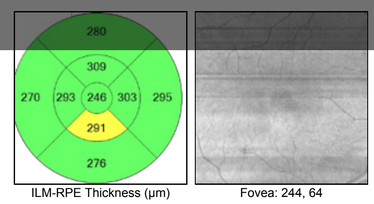
Name: 108 RETINA - CSCR, CNV/SRF, (OD) 3 visits- MacCube, Angio: 3x3

ID: 108 RETINA
DOB: 1/1/1948
Gender: Other
Technician: Operator, Cirrus
Exam Date: 7/5/2016
Exam Time: 8:47 AM
Serial Number: 5000-4618
Signal Strength: 10
CZMI

Macula Thickness : Macular Cube 512x128 OD ● ○ OS

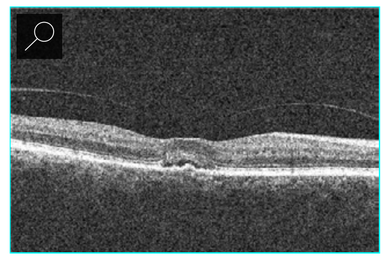


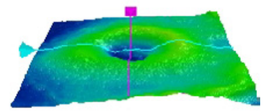
Overlay: ILM - RPE Transparency: 50 %



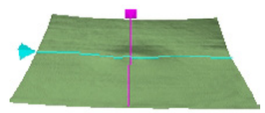
ILM-RPE Thickness (µm)

Fovea: 244, 64

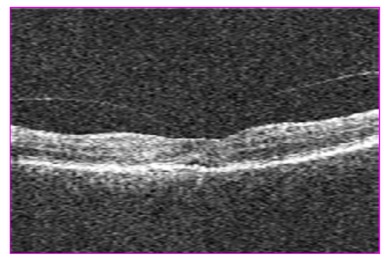


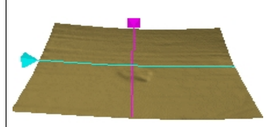


ILM - RPE



ILM





RPE

Diversified: Distribution of Normals
99%
95%
5%
1%

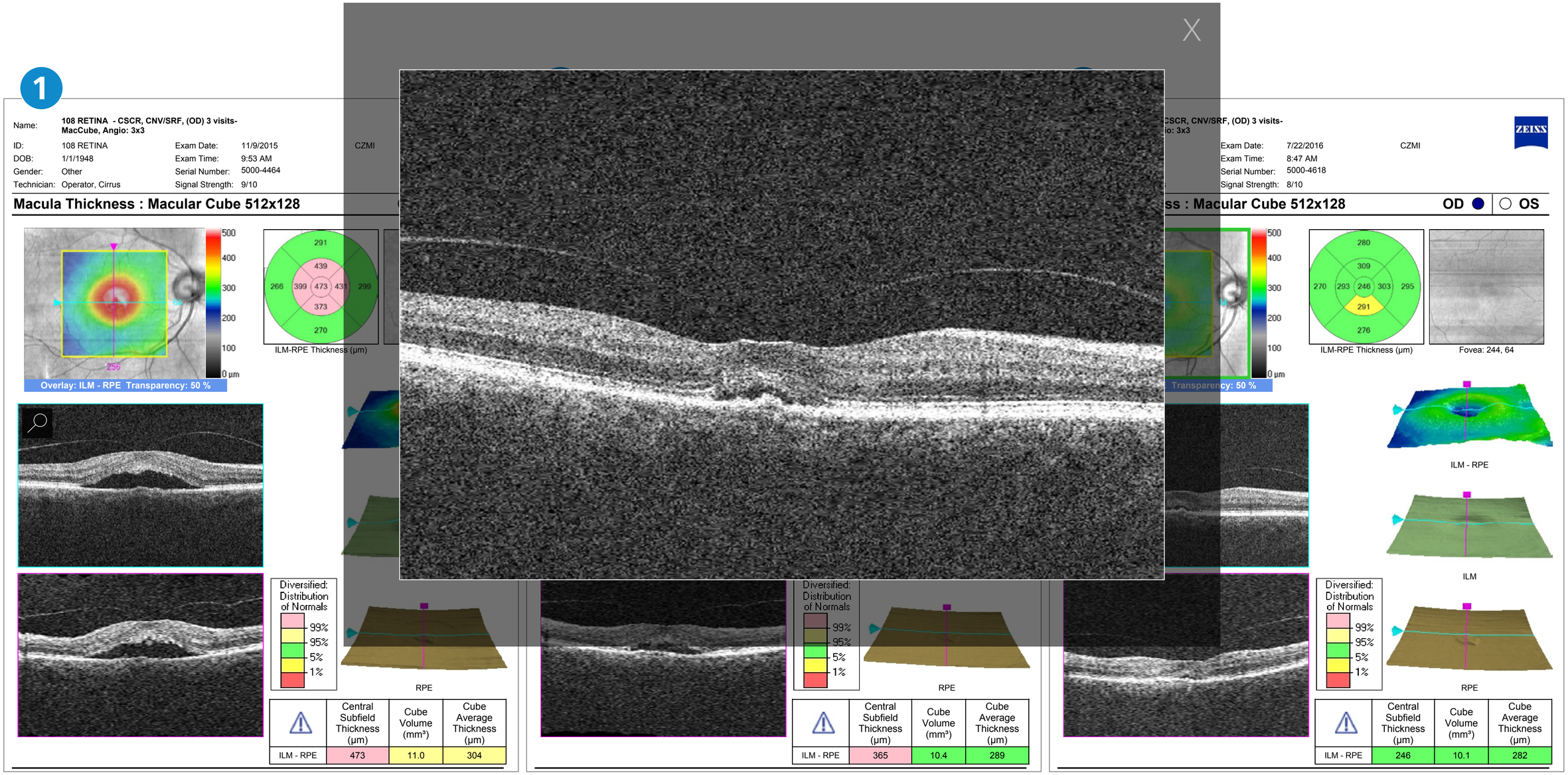
	Central Subfield Thickness (µm)	Cube Volume (mm³)	Cube Average Thickness (µm)
ILM - RPE	246	10.1	282

Central Serous Chorioretinopathy (CSC)

Patient History

70-year-old male. Patient presented with complaints of decreased vision in the right eye.

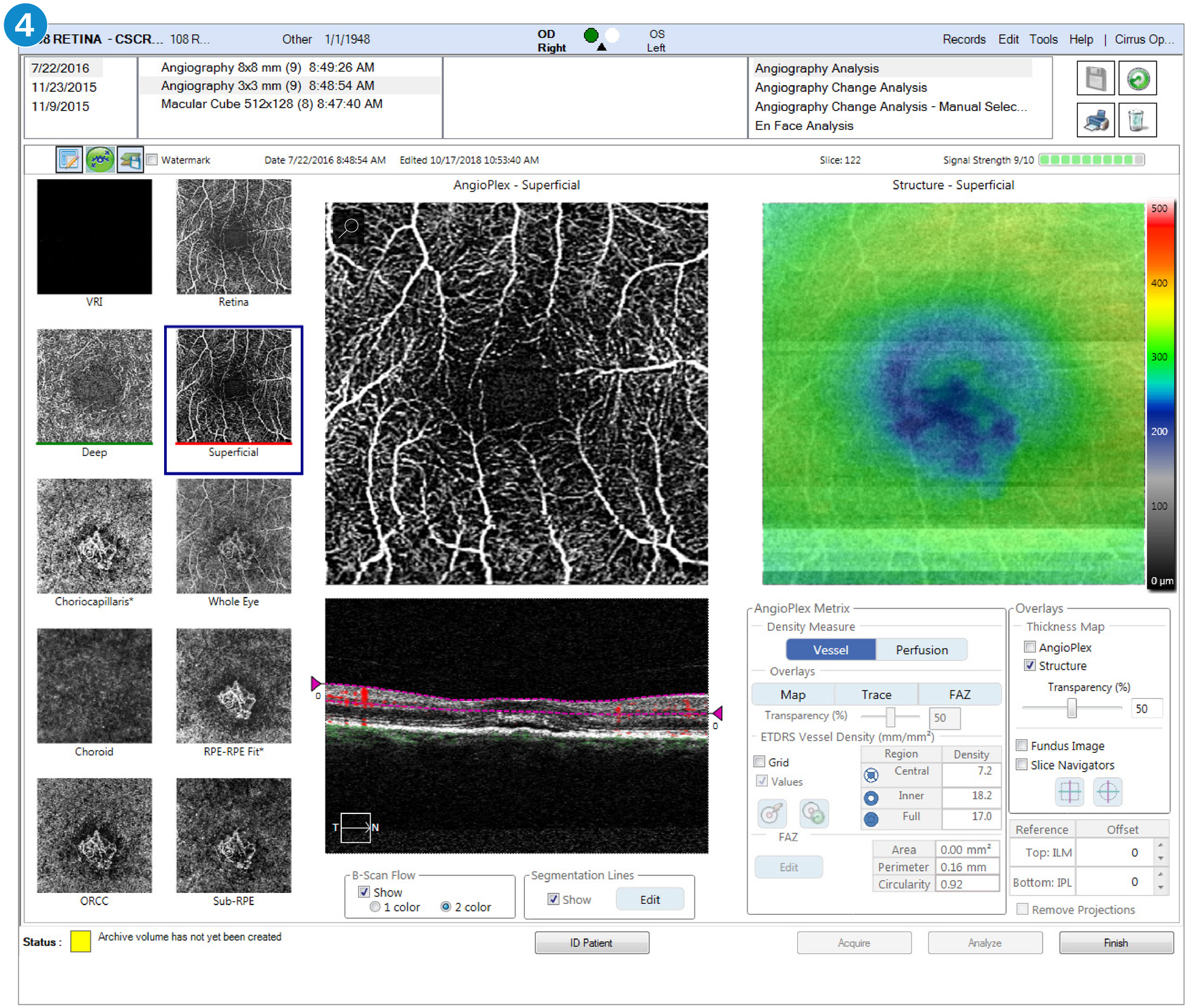
More »



CSC

The patient was scanned using OCTA, and a quick overview of the OCTA slab thumbnails identifies the slabs needing further evaluation.

More »



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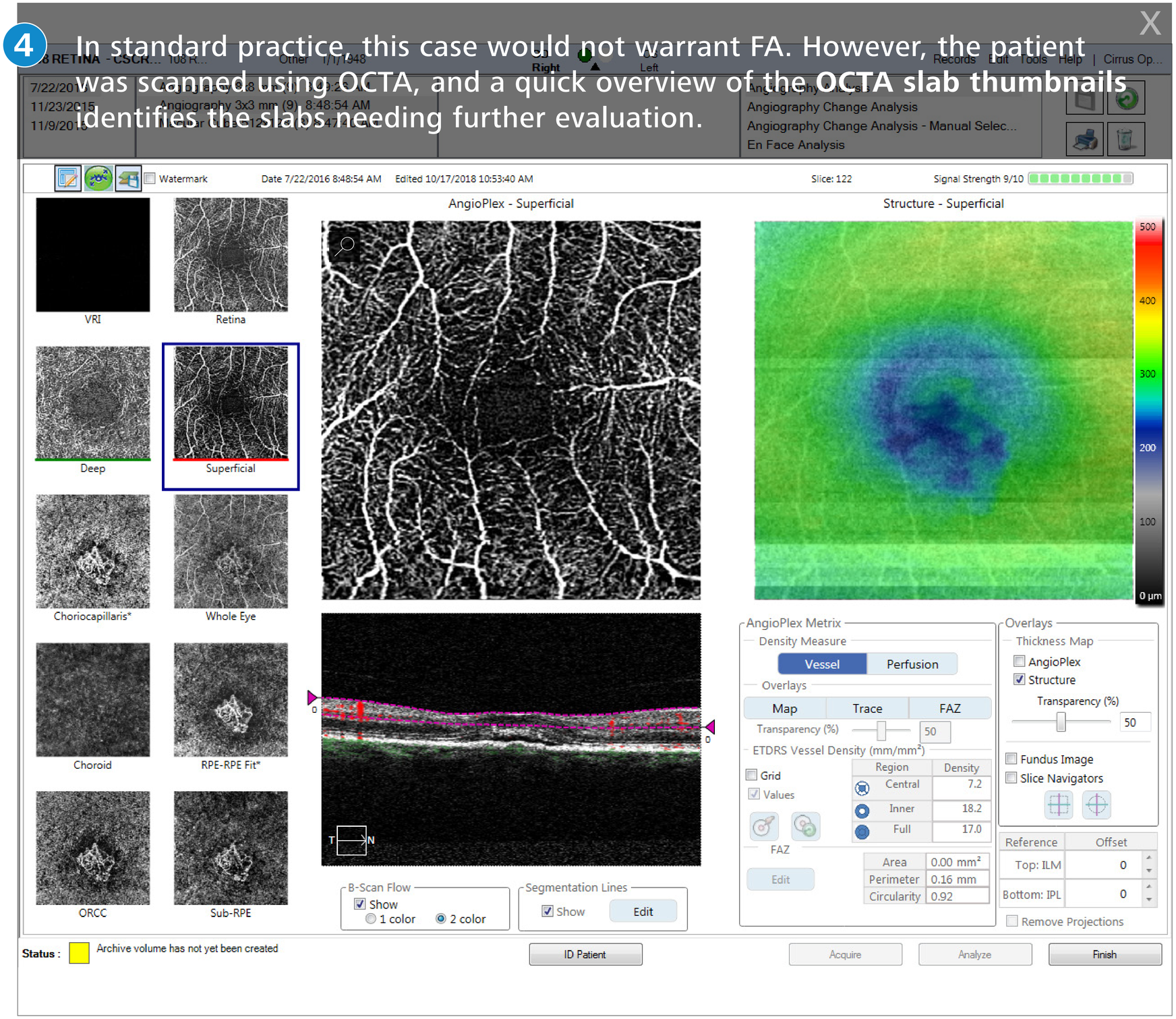

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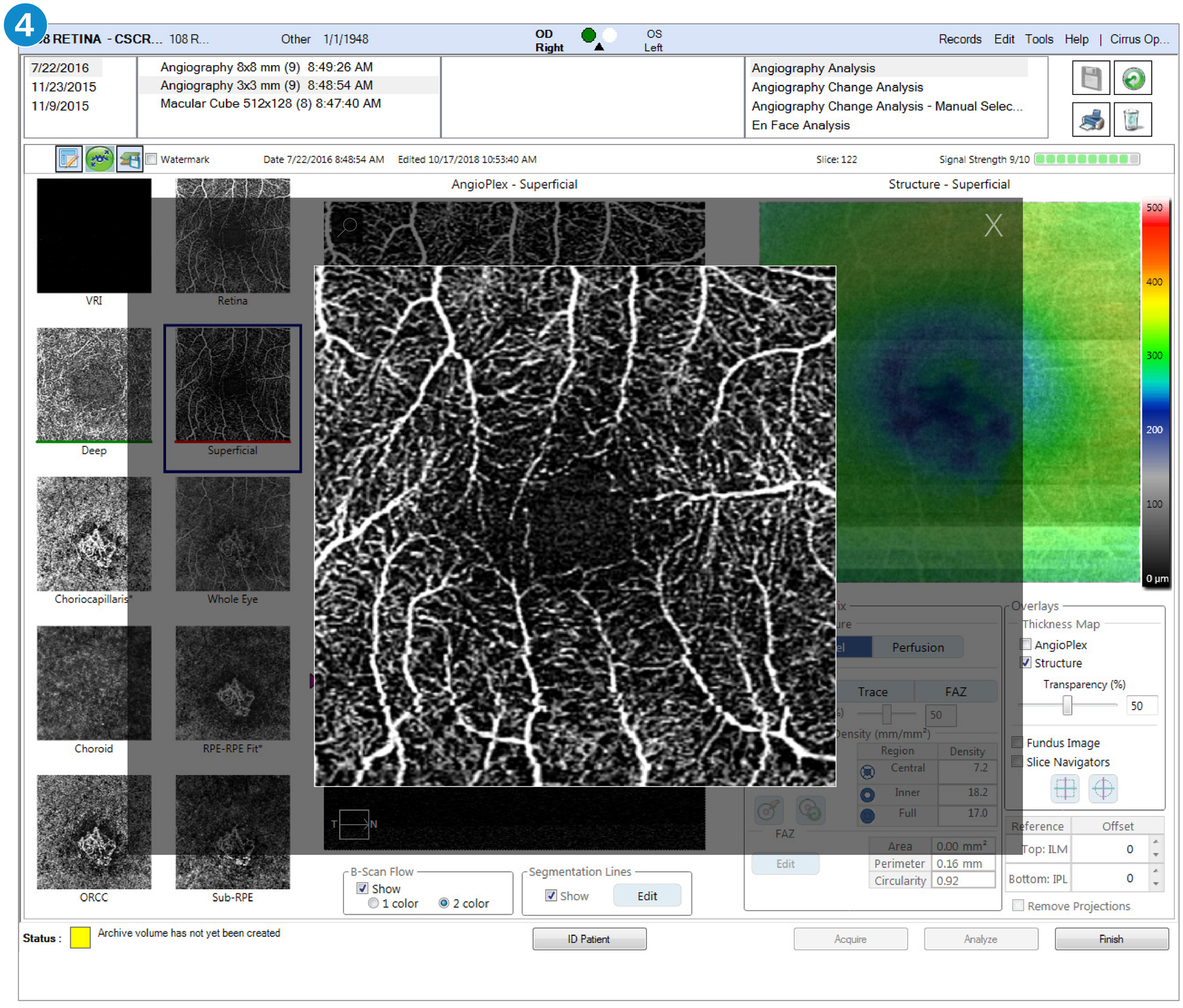
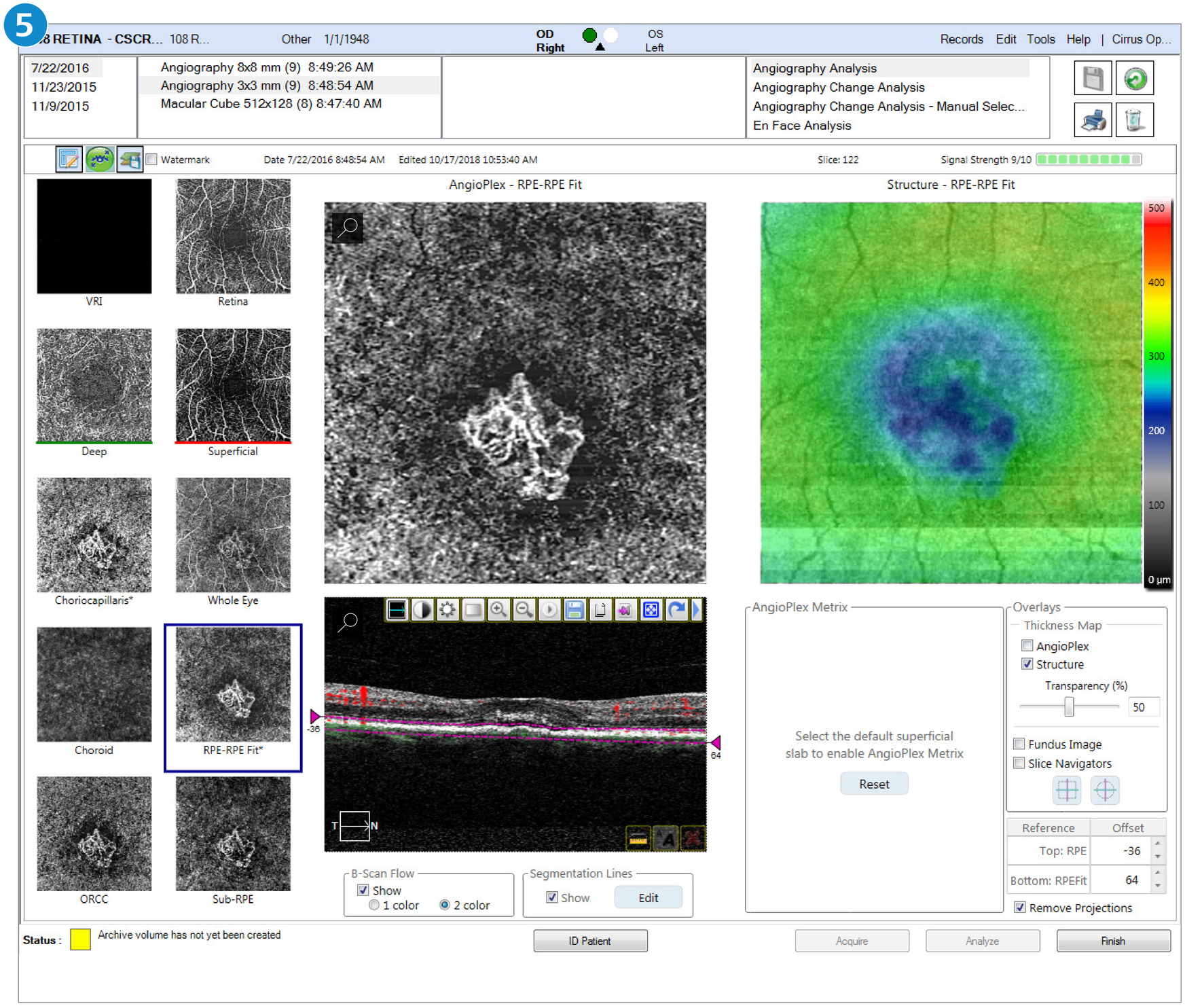


CSC

Summary

OCTA reveals the presence of CNV in a way that the standard OCT B-scan or macular cube scan cannot, thereby elevating confidence before a patient is referred for anti-VEGF injections.



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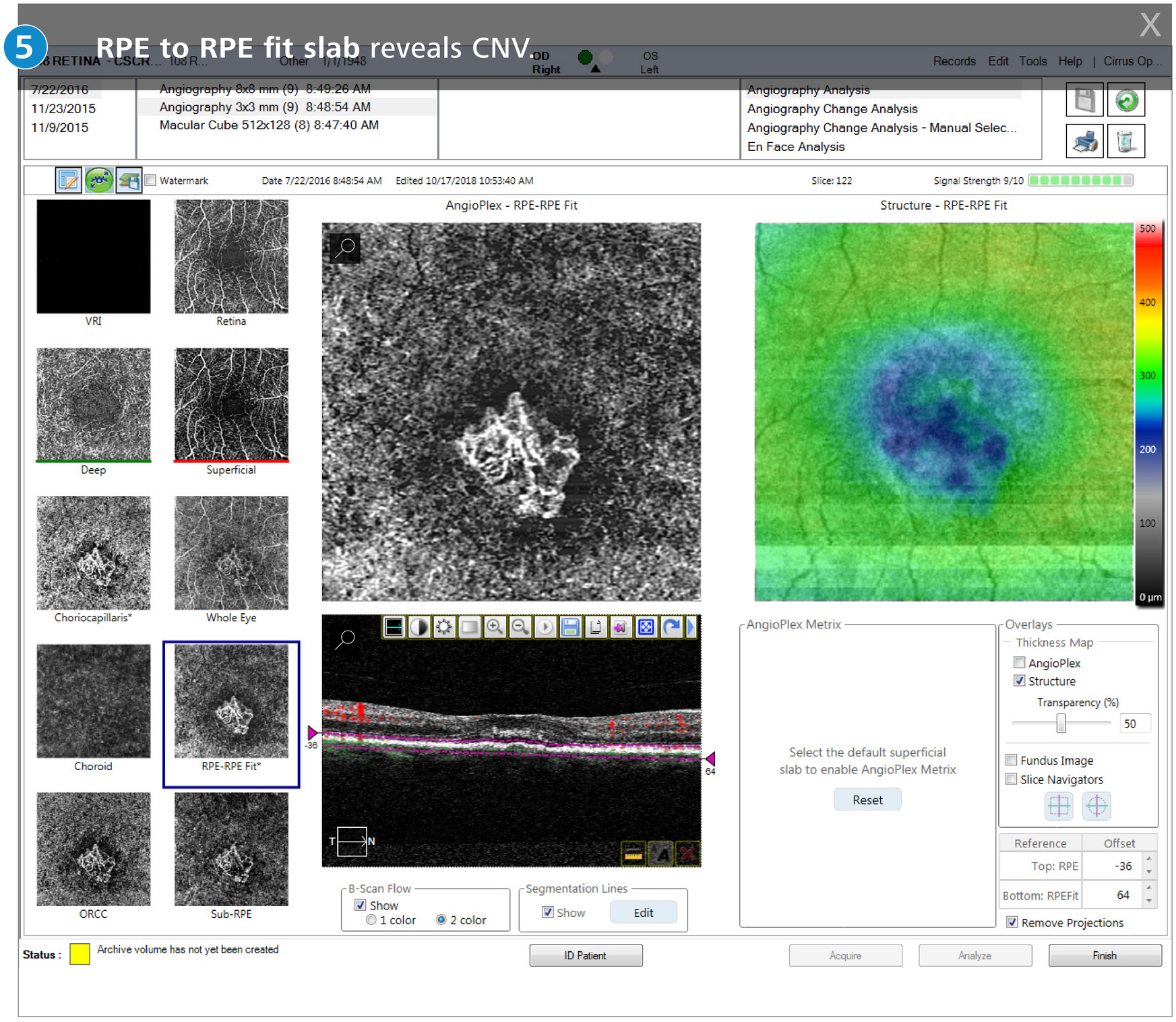

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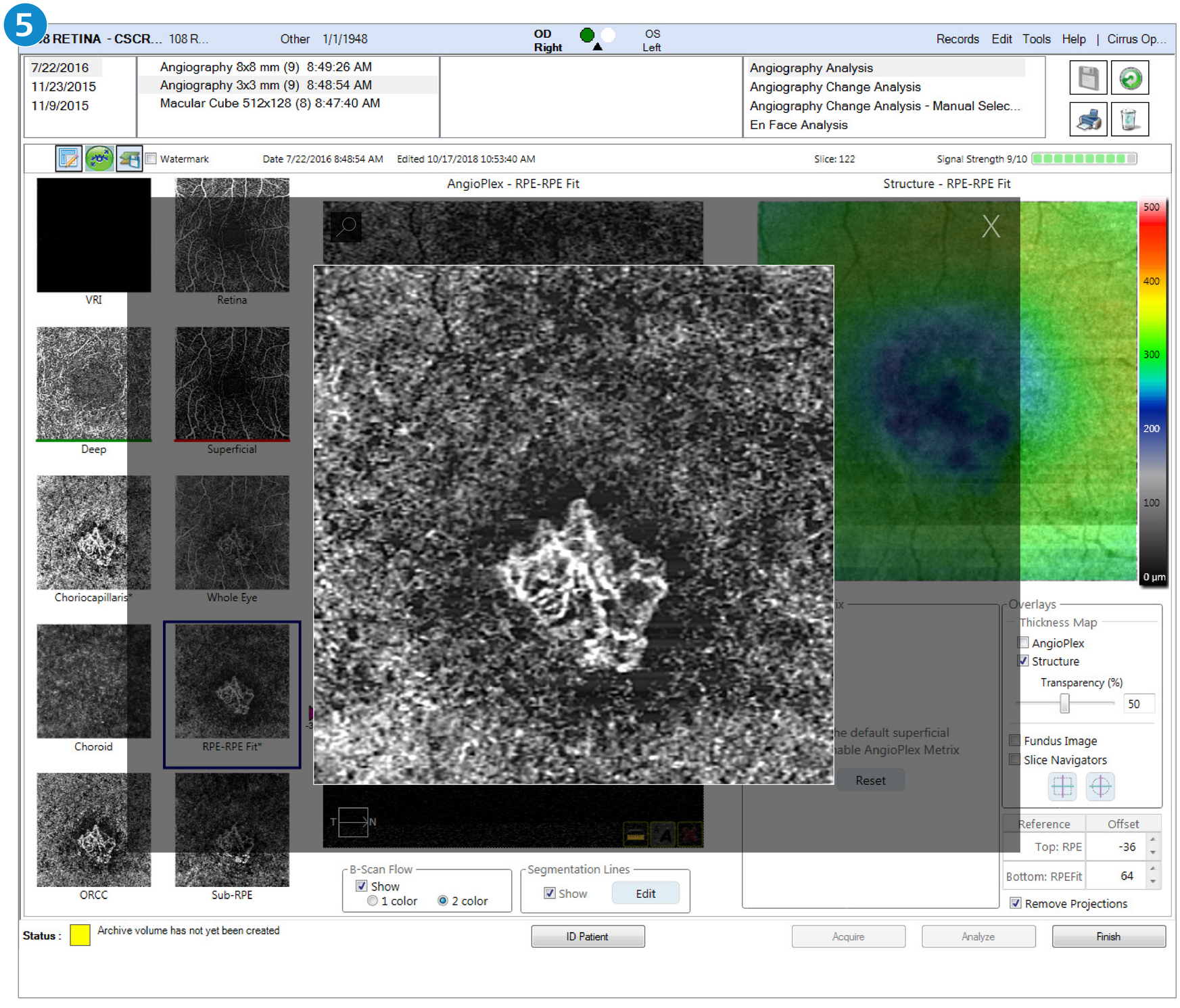

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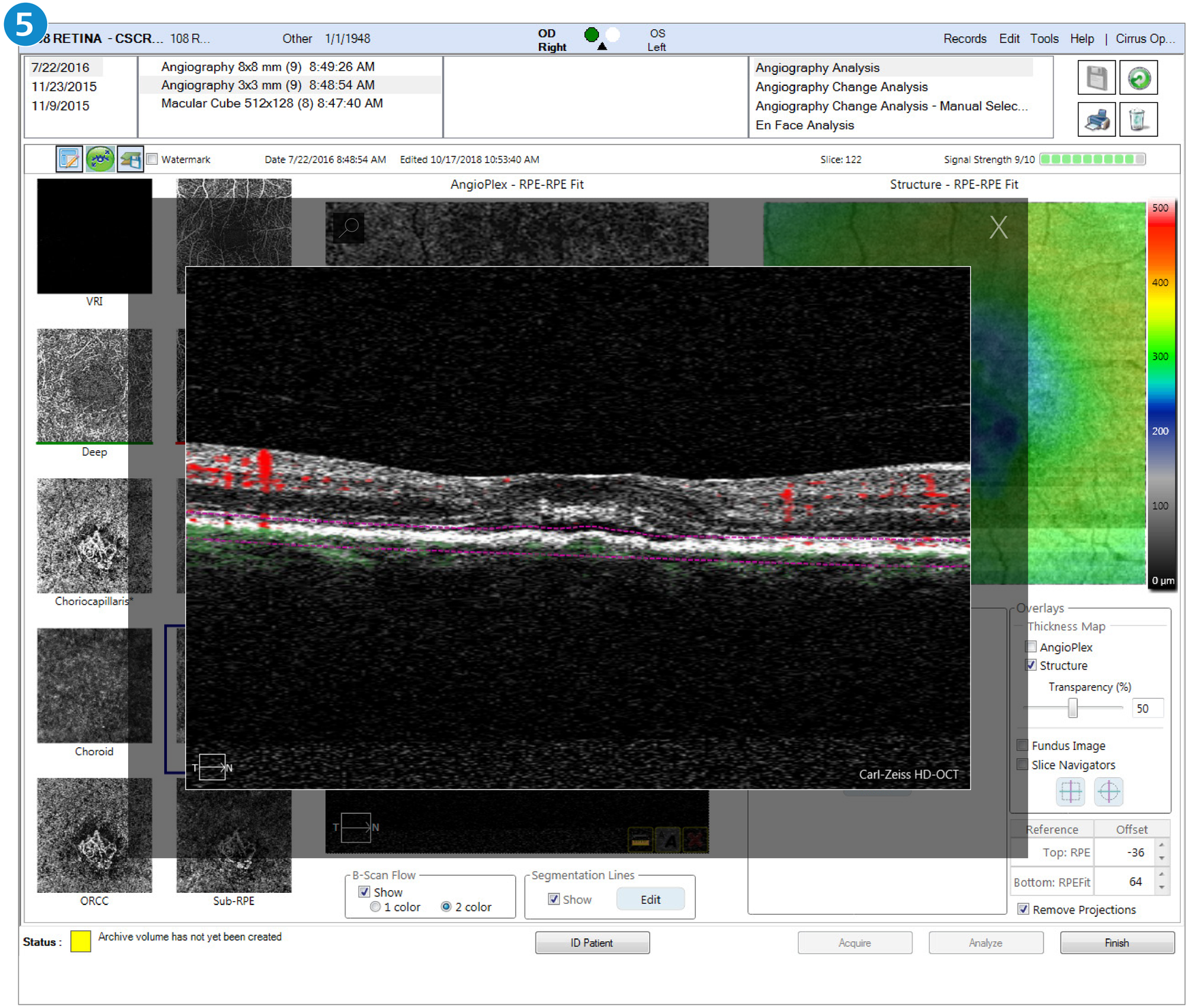


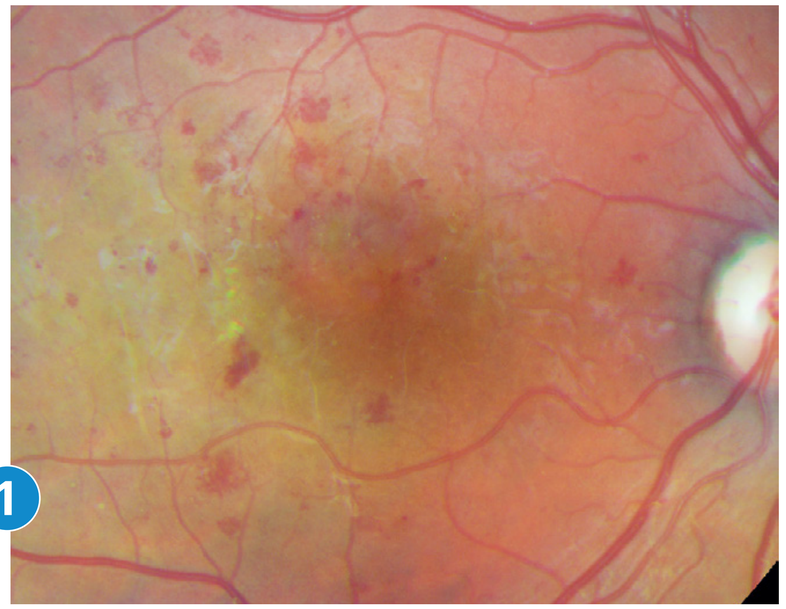
Ischemic Diabetic Maculopathy

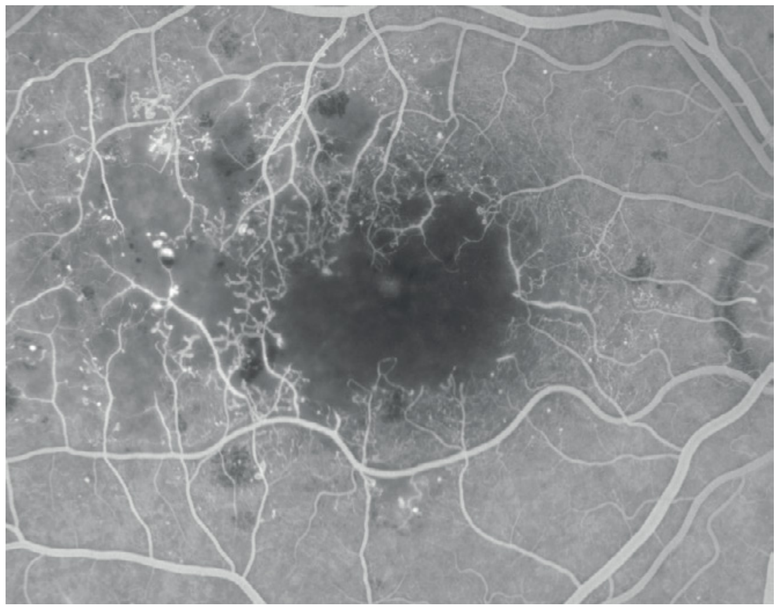
Patient History

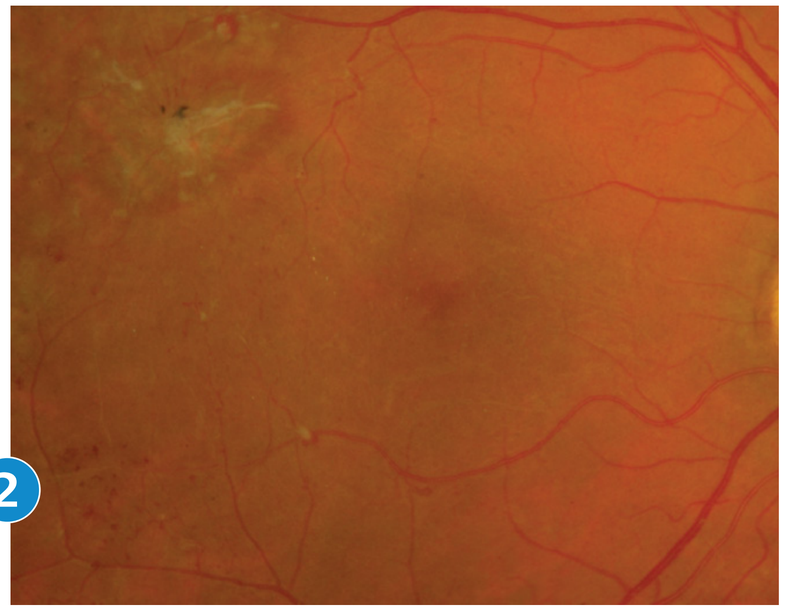
This patient was first imaged on a traditional fundus camera.

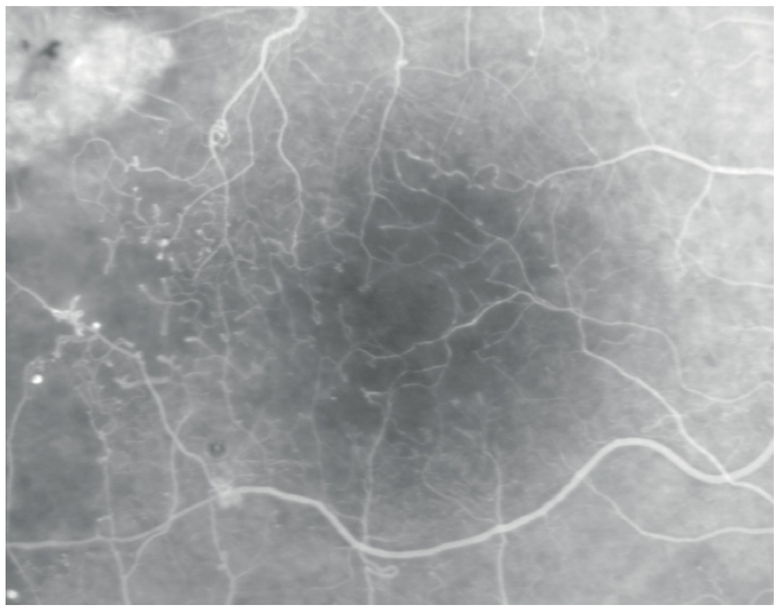
Color fundus images as well as fluorescein angiography images were taken prior to OCT Angiography.

More »









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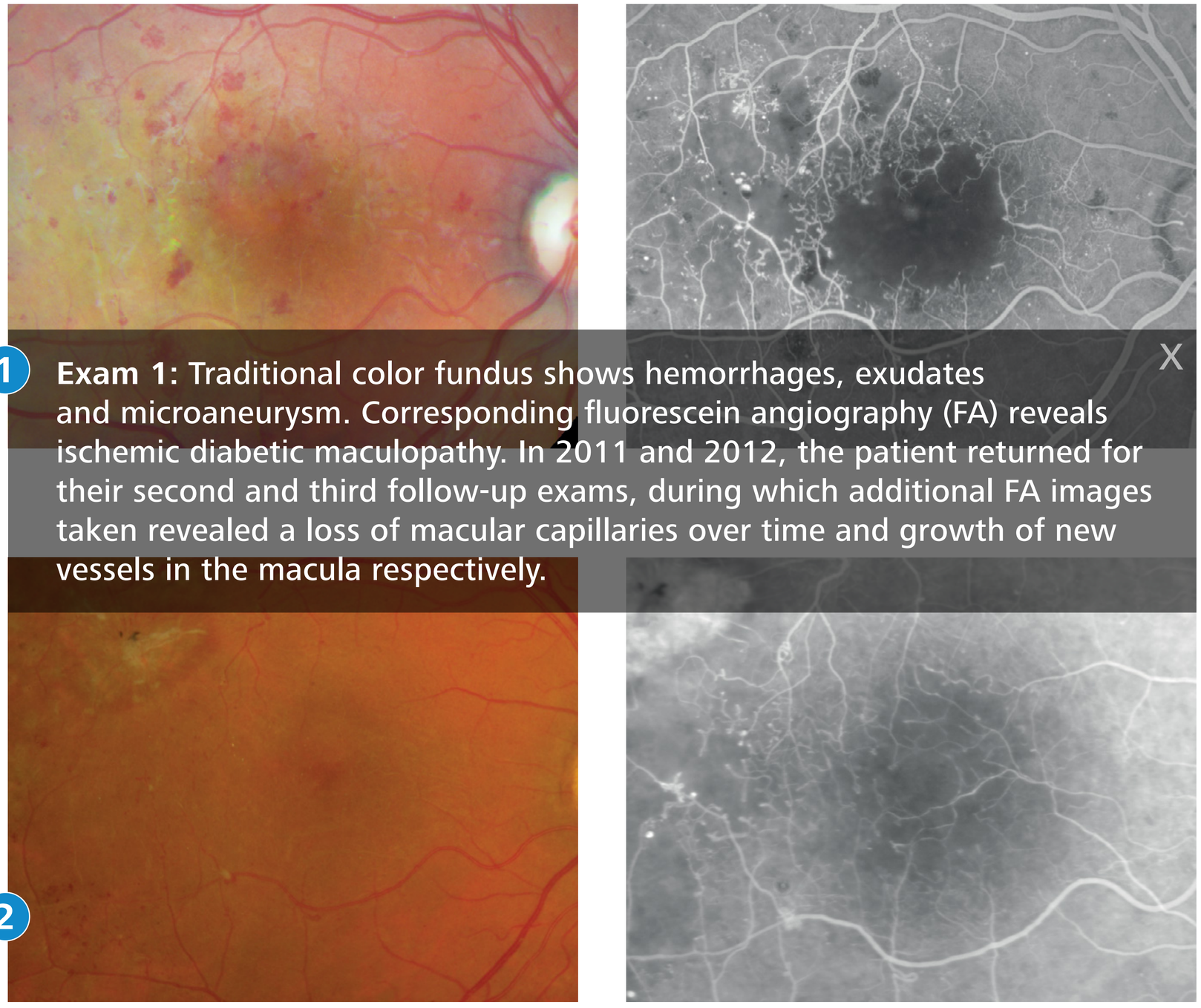

1

Exam 1: Traditional color fundus shows hemorrhages, exudates and microaneurysm. Corresponding fluorescein angiography (FA) reveals ischemic diabetic maculopathy. In 2011 and 2012, the patient returned for their second and third follow-up exams, during which additional FA images taken revealed a loss of macular capillaries over time and growth of new vessels in the macula respectively.

X

2

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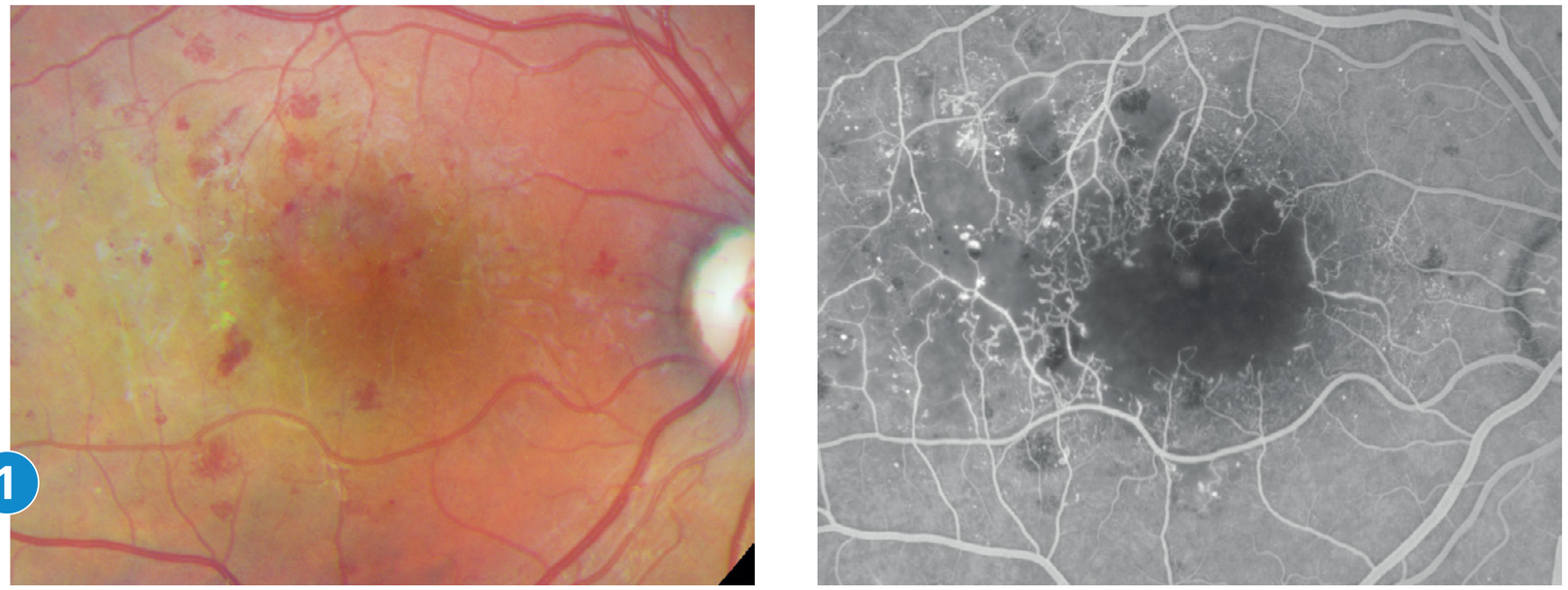
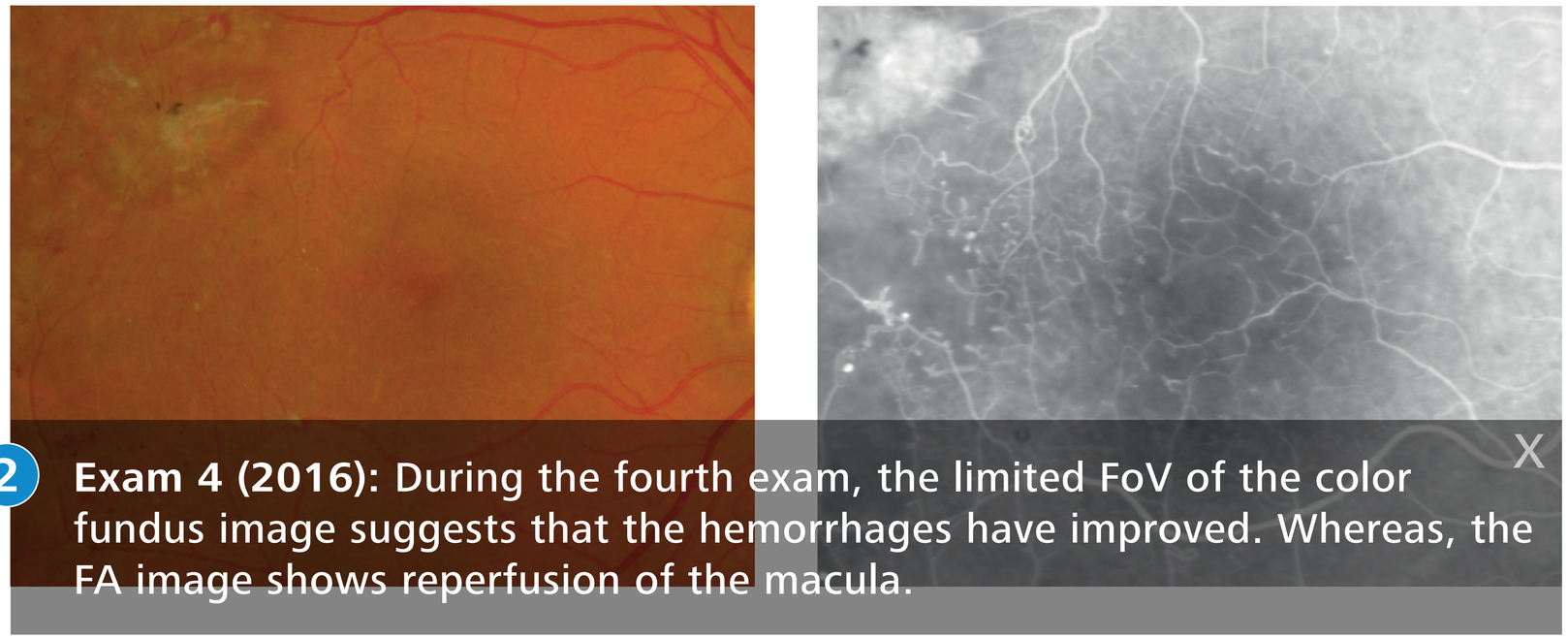
More »



1

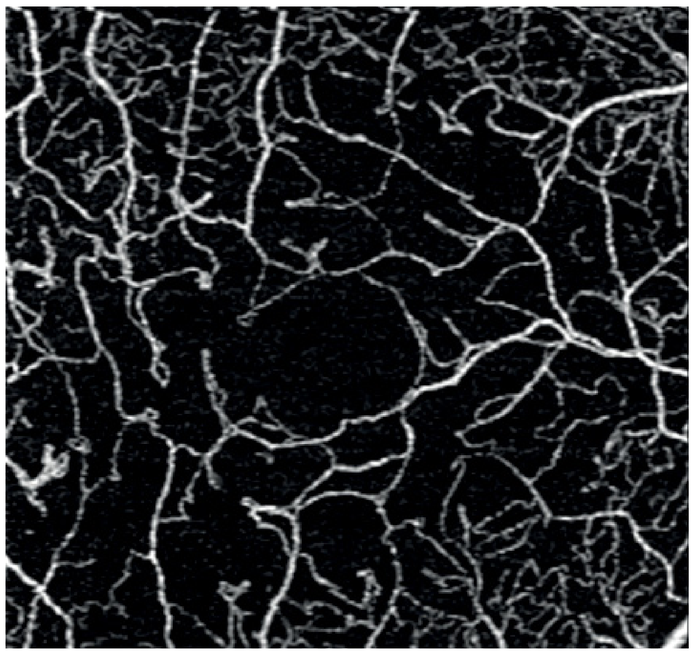


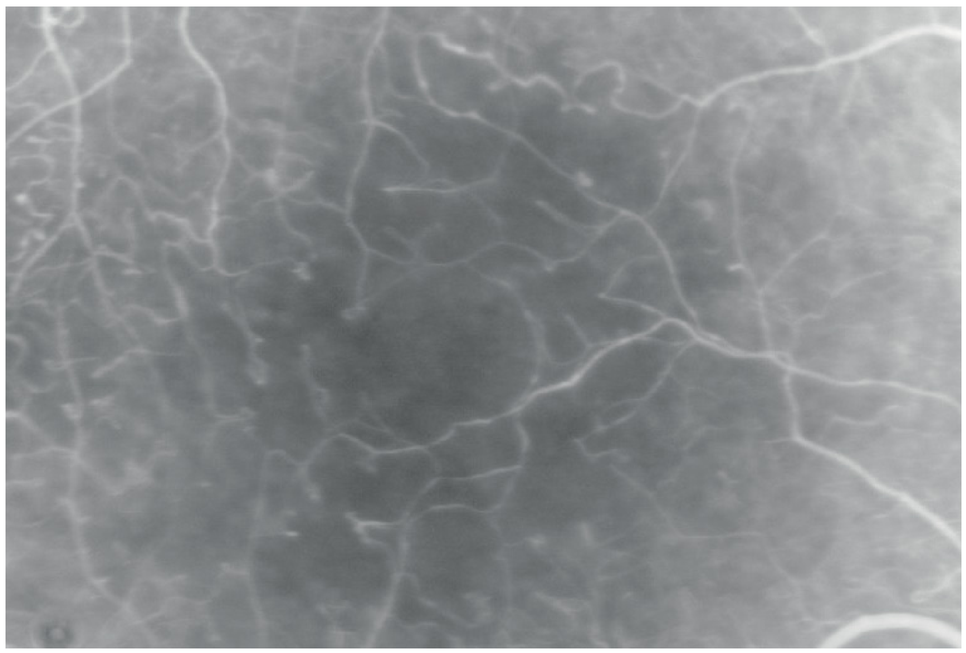
2 **Exam 4 (2016):** During the fourth exam, the limited FoV of the color fundus image suggests that the hemorrhages have improved. Whereas, the FA image shows reperfusion of the macula.

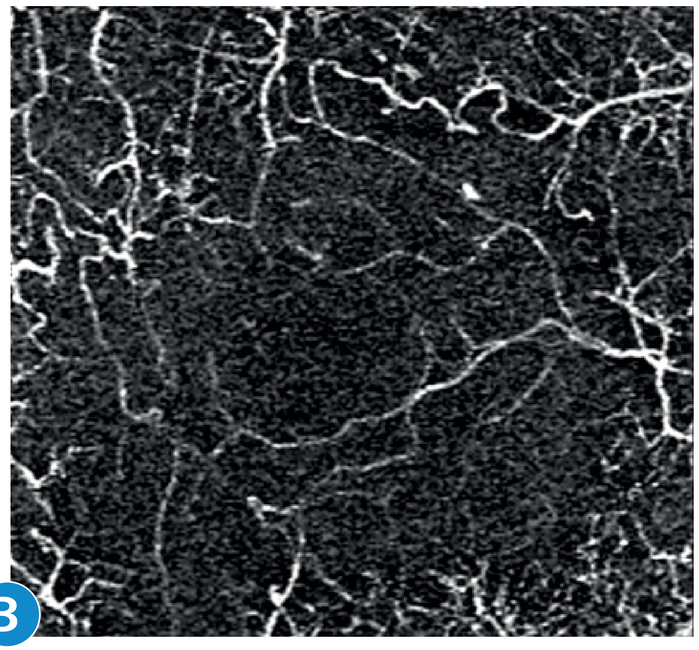
X

Ischemic Diabetic Maculopathy

Summary
In such cases, OCTA may be comparable to FA and preferred since OCTA is much quicker, non-invasive and more comfortable for the patient.







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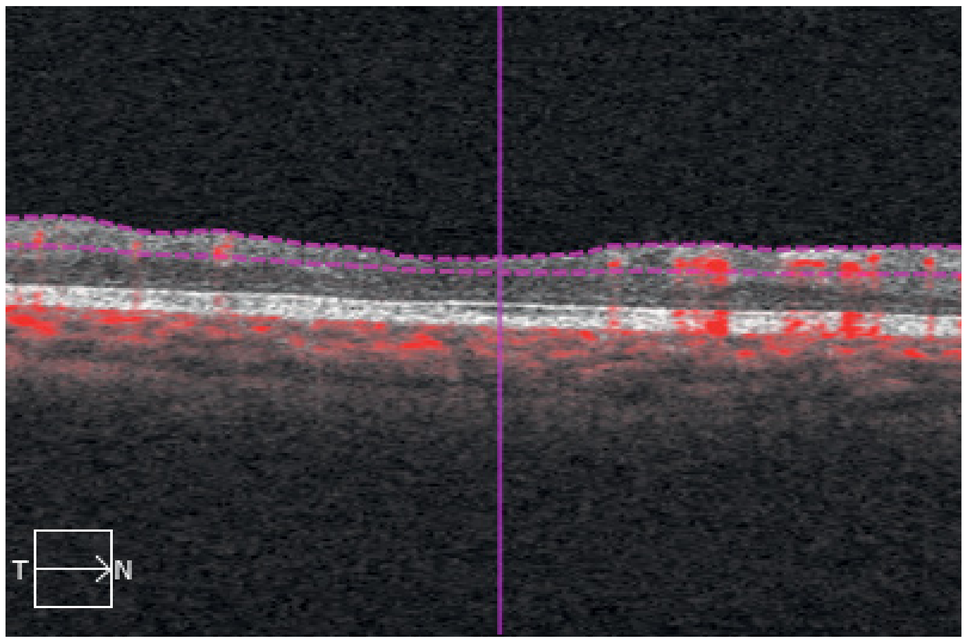

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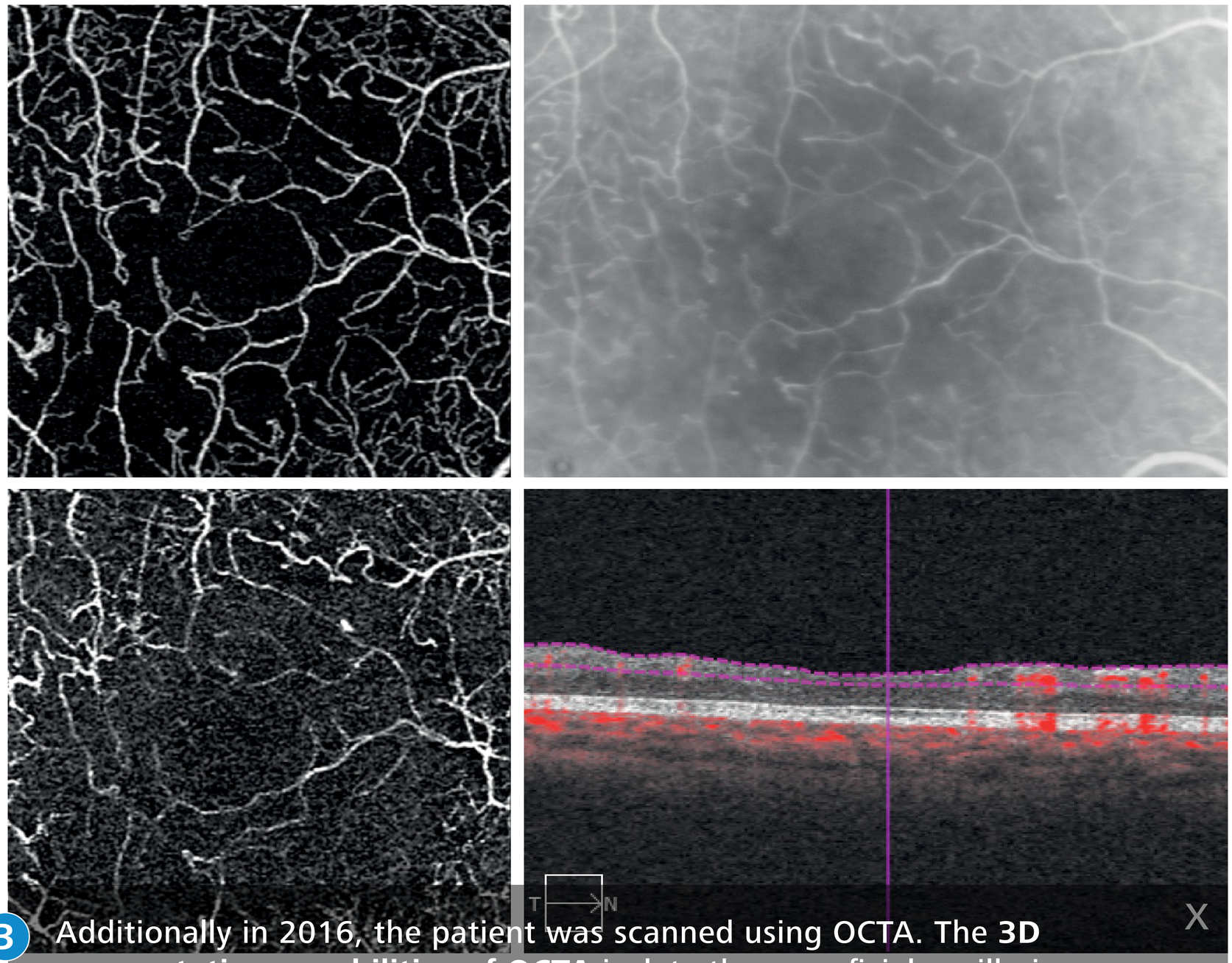

3 Additionally in 2016, the patient was scanned using OCTA. The **3D segmentation capabilities of OCTA** isolate the superficial capillaries, confirming the findings in the FA.

Non-Proliferative Diabetic Retinopathy (NPDR)

Patient History

57-year-old, diabetic male, presented with blurry vision, worse in the right eye.

Physical exam of the patient was unremarkable. There was no refractive error change; best-corrected visual acuity was 20/30 and 20/25 in the right and left eye, respectively. There were no lens changes. Upon dilated fundus exam, mild NPDR was noted in both eyes, with no DME seen.

More »

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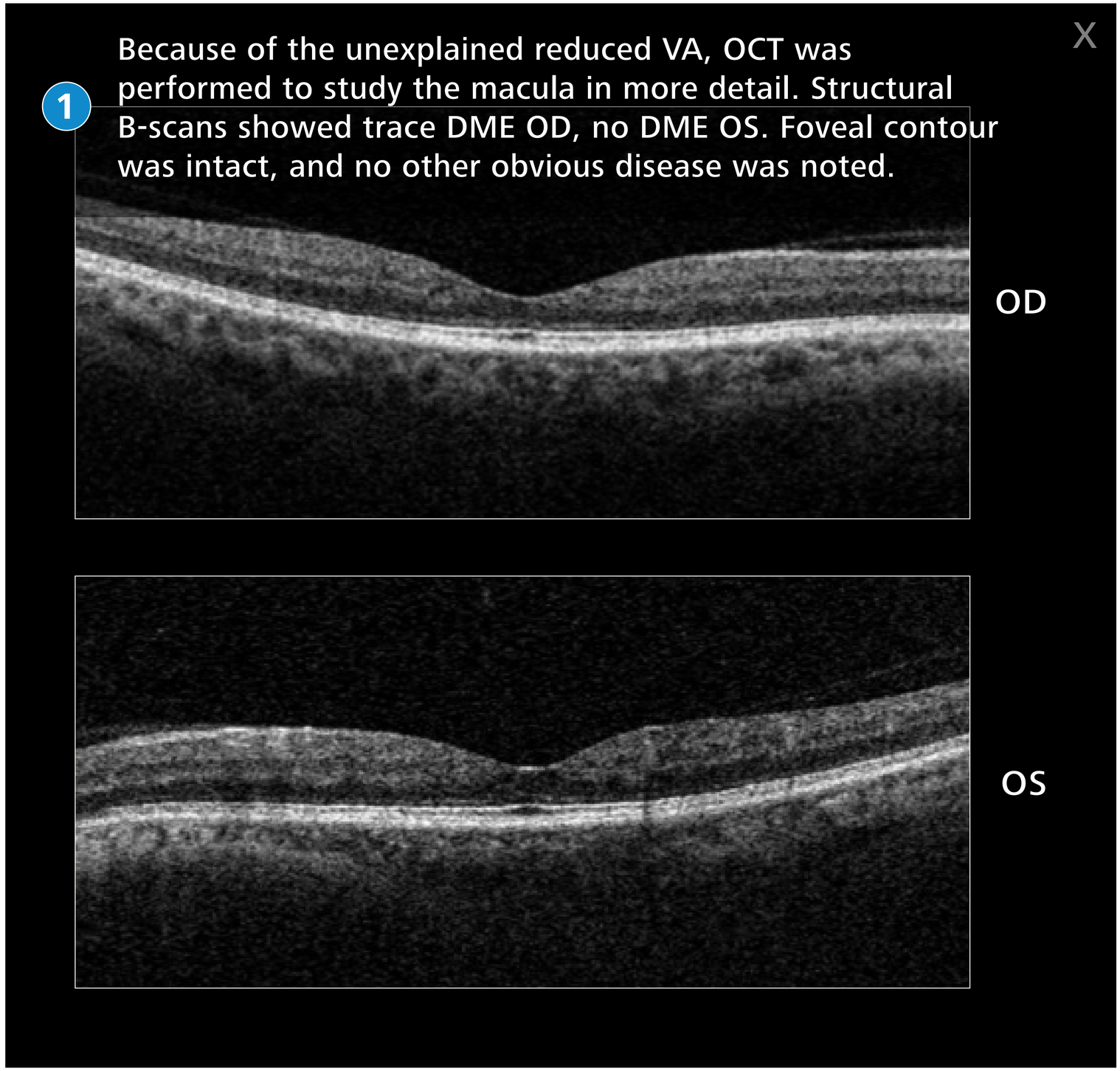


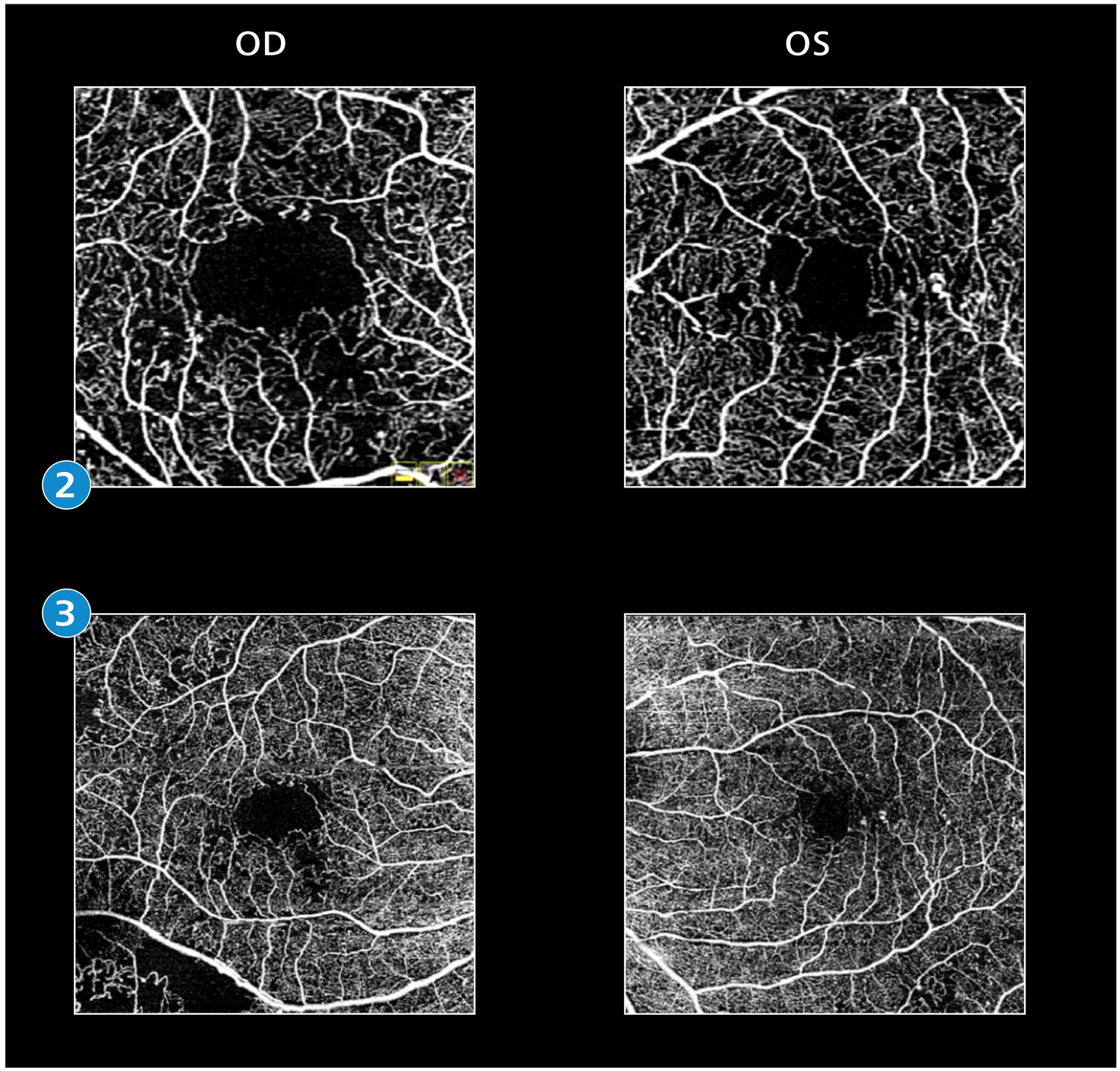
NPDR

Summary

OCTA imaging revealed macular ischemia in both eyes, which explained the reduced visual acuity.

OCTA is quick and non-invasive, providing valuable insight into the health status of the eye and allowing clinicians to evaluate the retinal vasculature when fluorescein angiography may not be indicated. This is especially helpful for diabetic patients, since some studies show that capillary dropout on OCTA may precede visible retinopathy.

In this case, the patient was educated on the need for good compliance with follow ups and treatment to prevent further vision loss.



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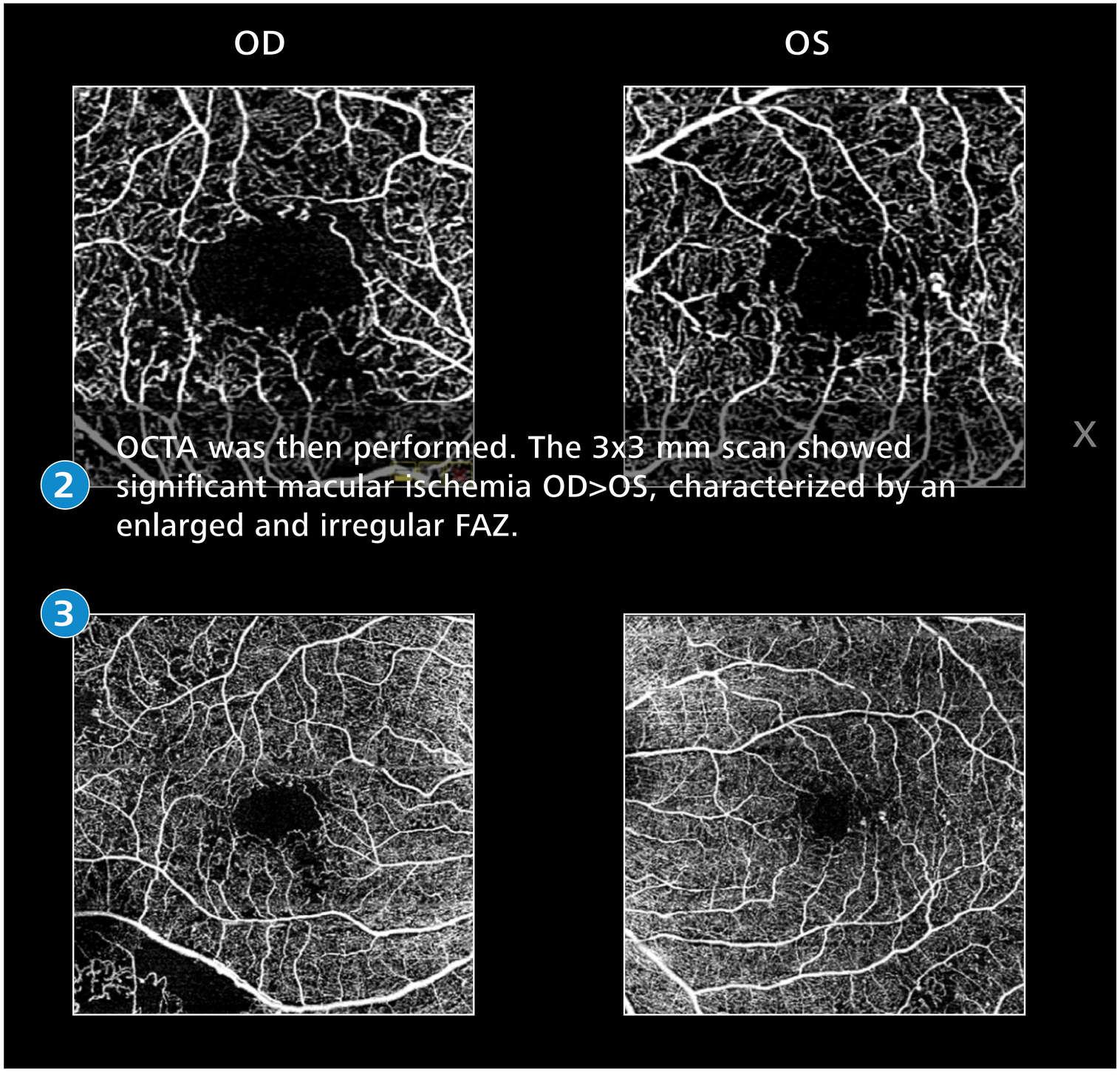

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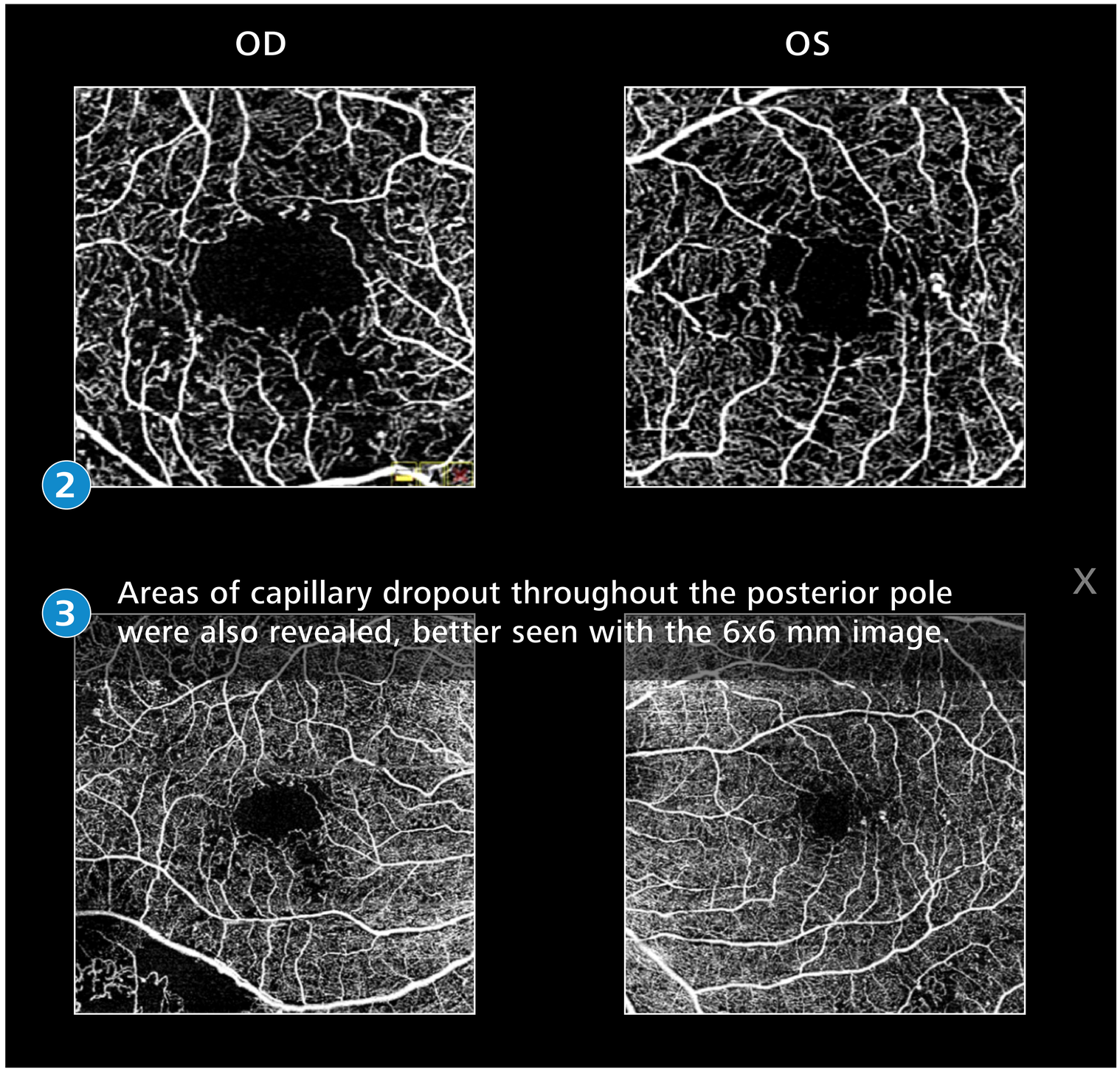
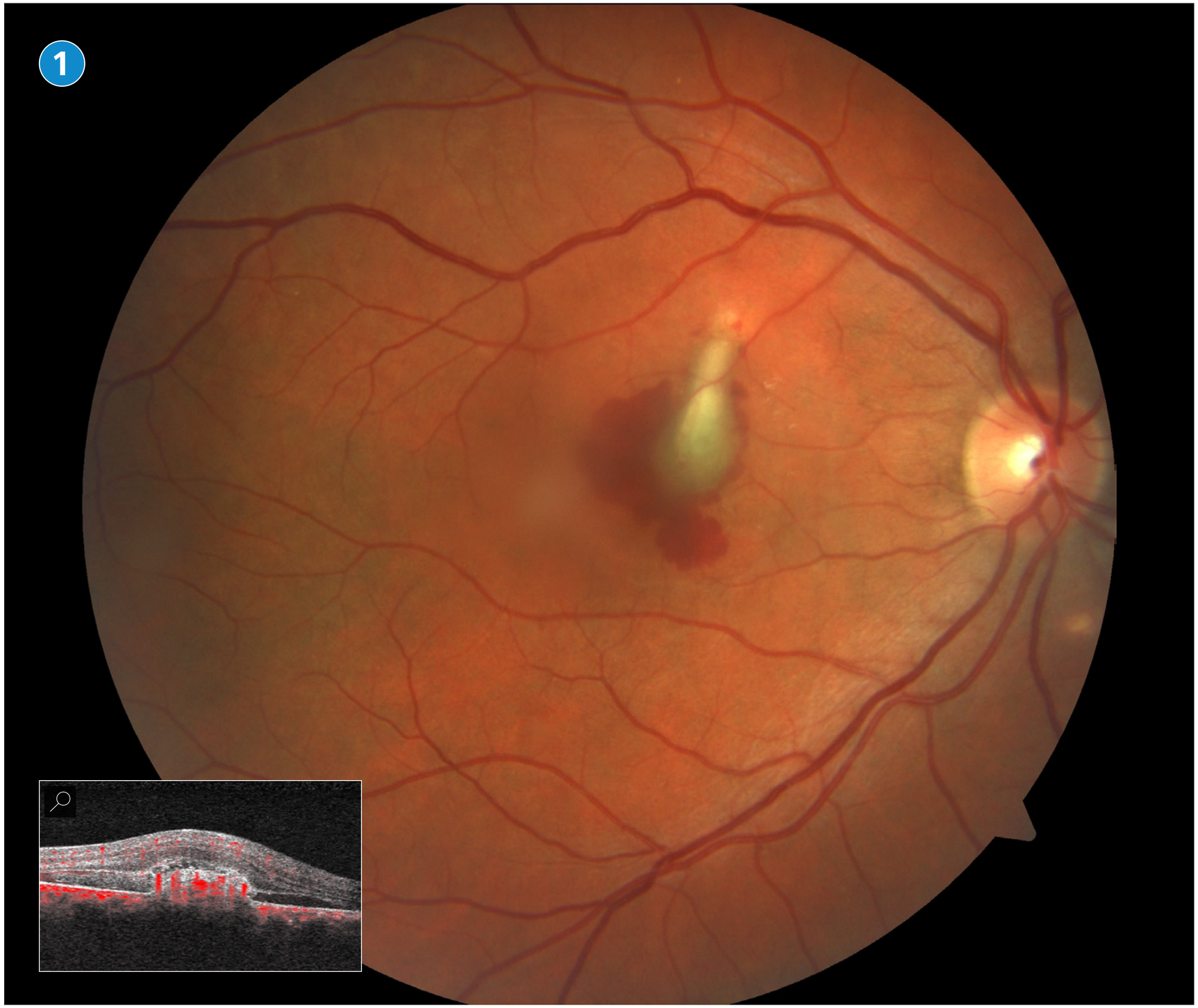


Exudative CNV

Patient History

A 52-year-old white male was referred to the clinic for retinal evaluation. The patient complained of sudden onset of decreased central vision in the right eye for the past 2 days.

More »



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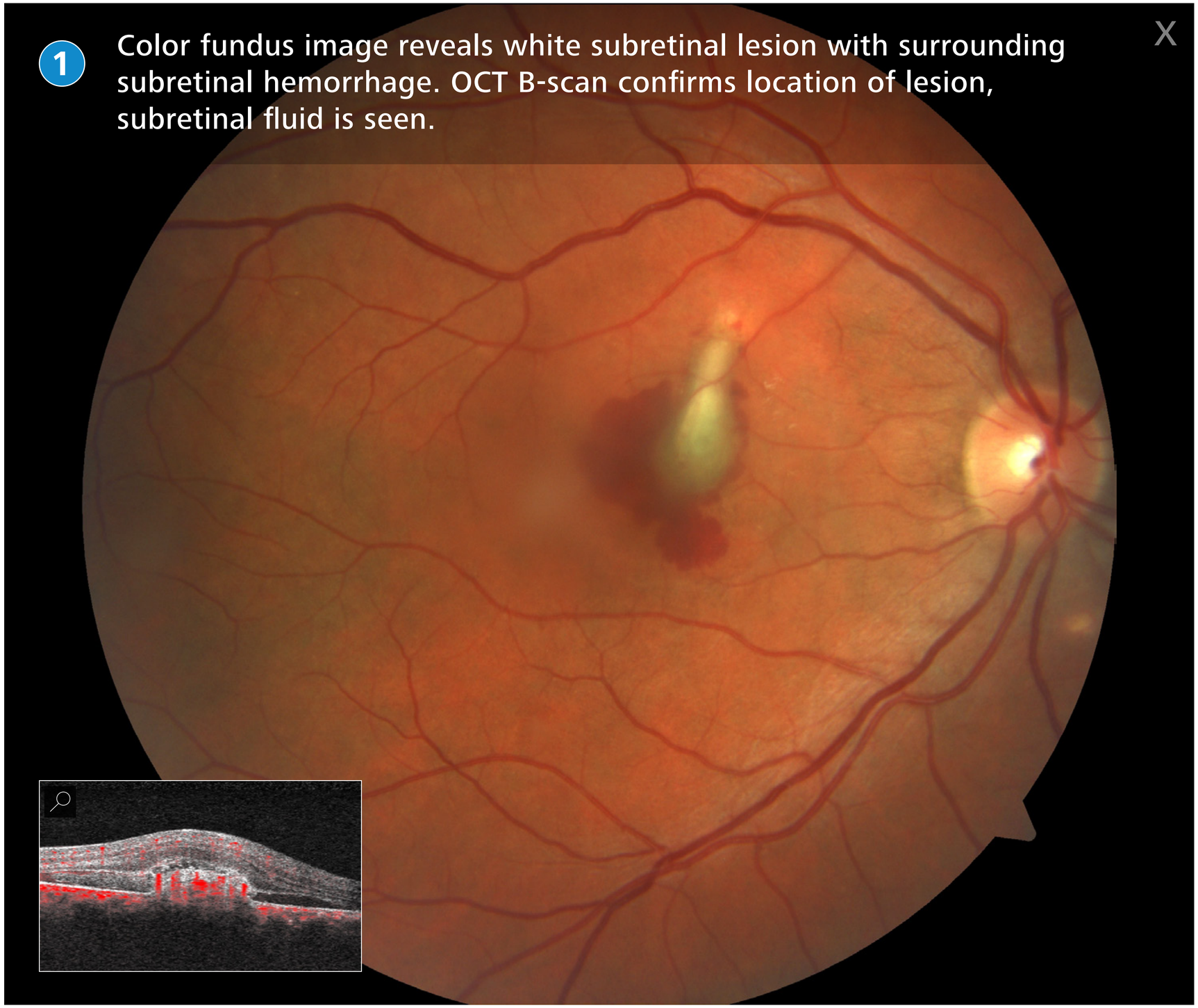

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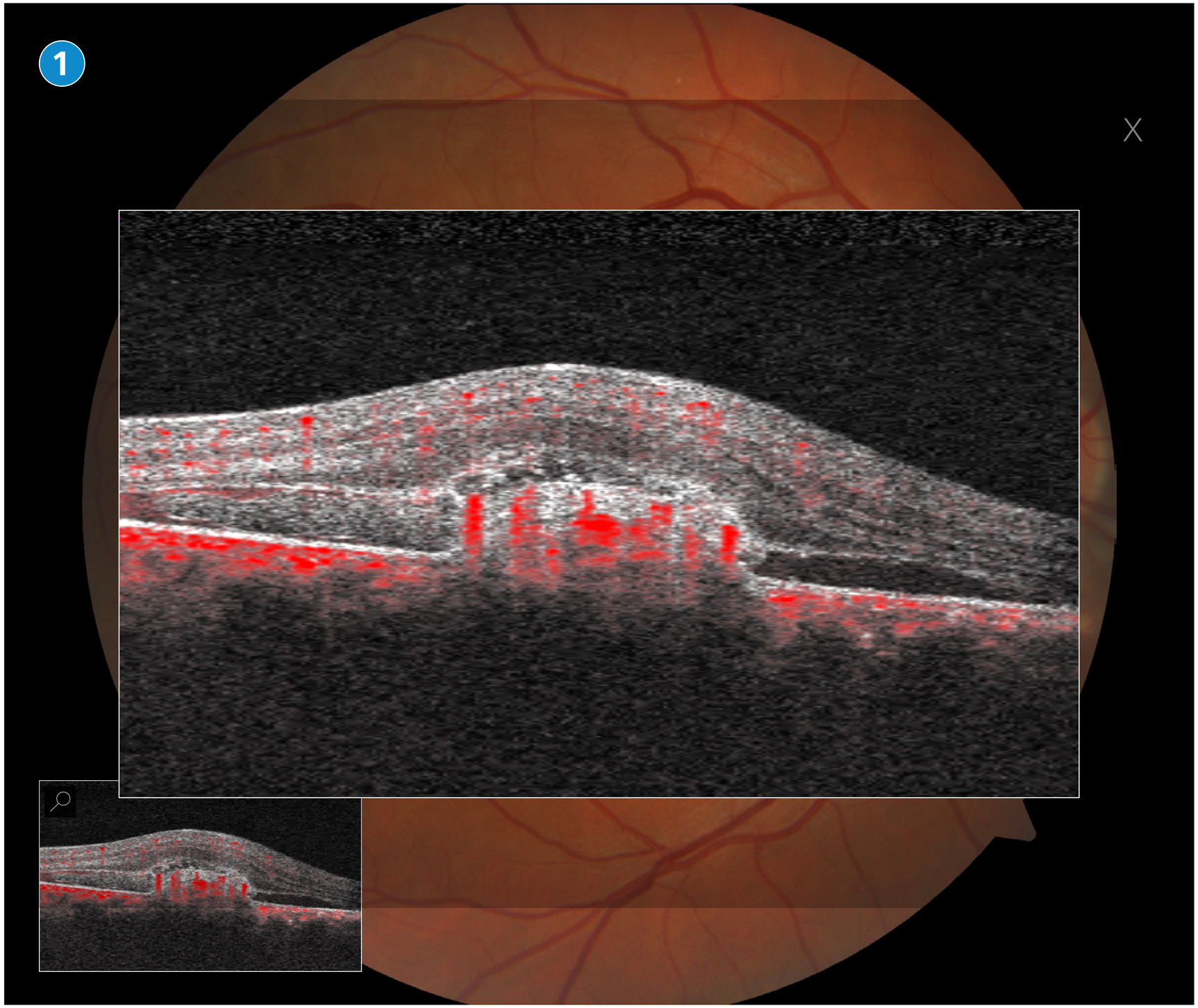

Exudative CNV

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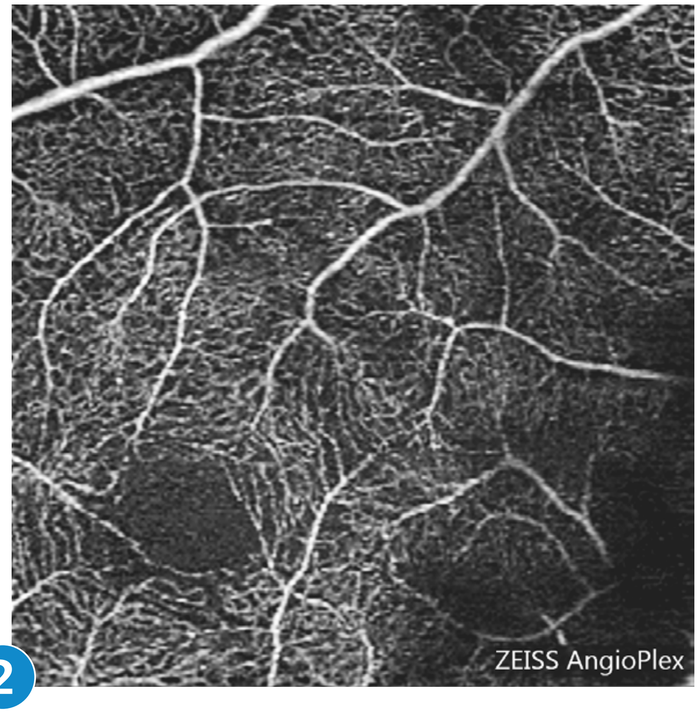
OCTA clearly reveals the CNV lesion in greater detail. In this case, FA may not be needed to make the diagnosis and plan treatment.

As the technology advances, OCTA may complement FA exams for certain diseases.



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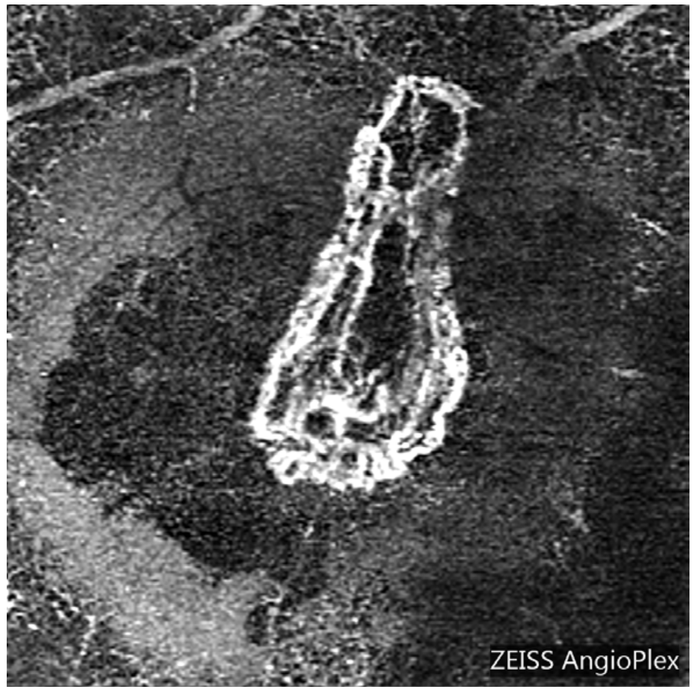

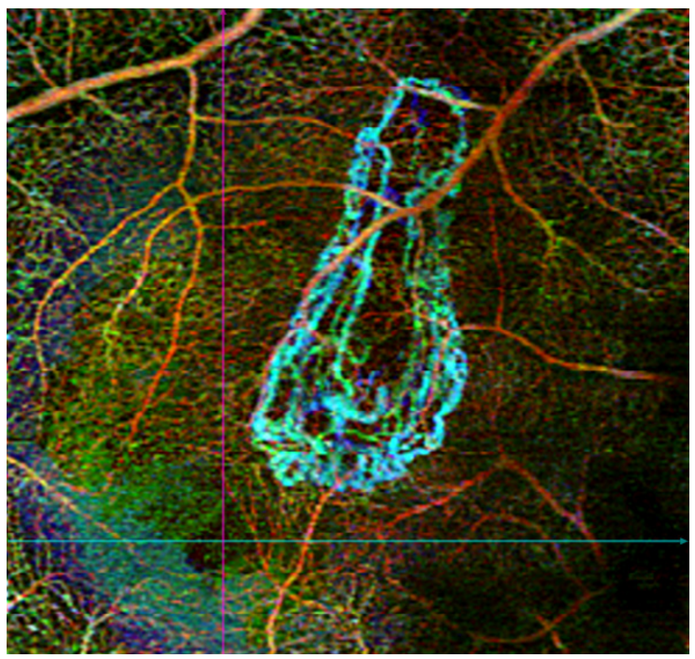

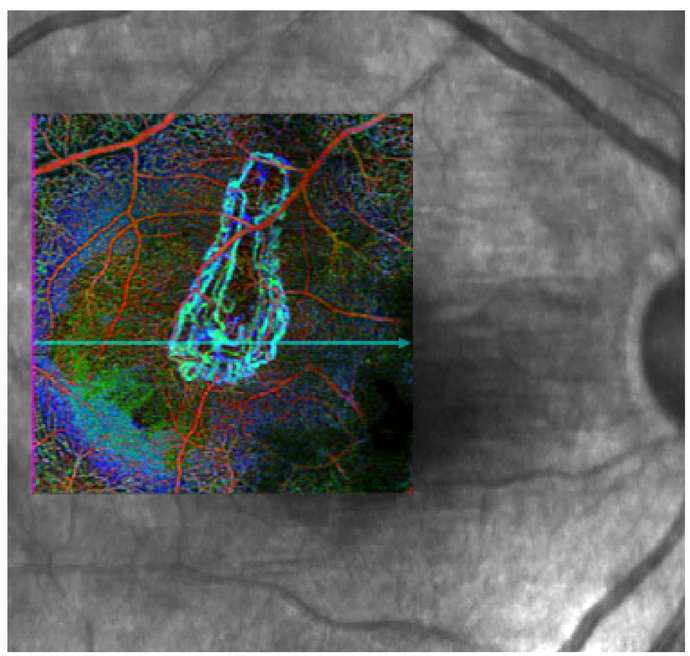

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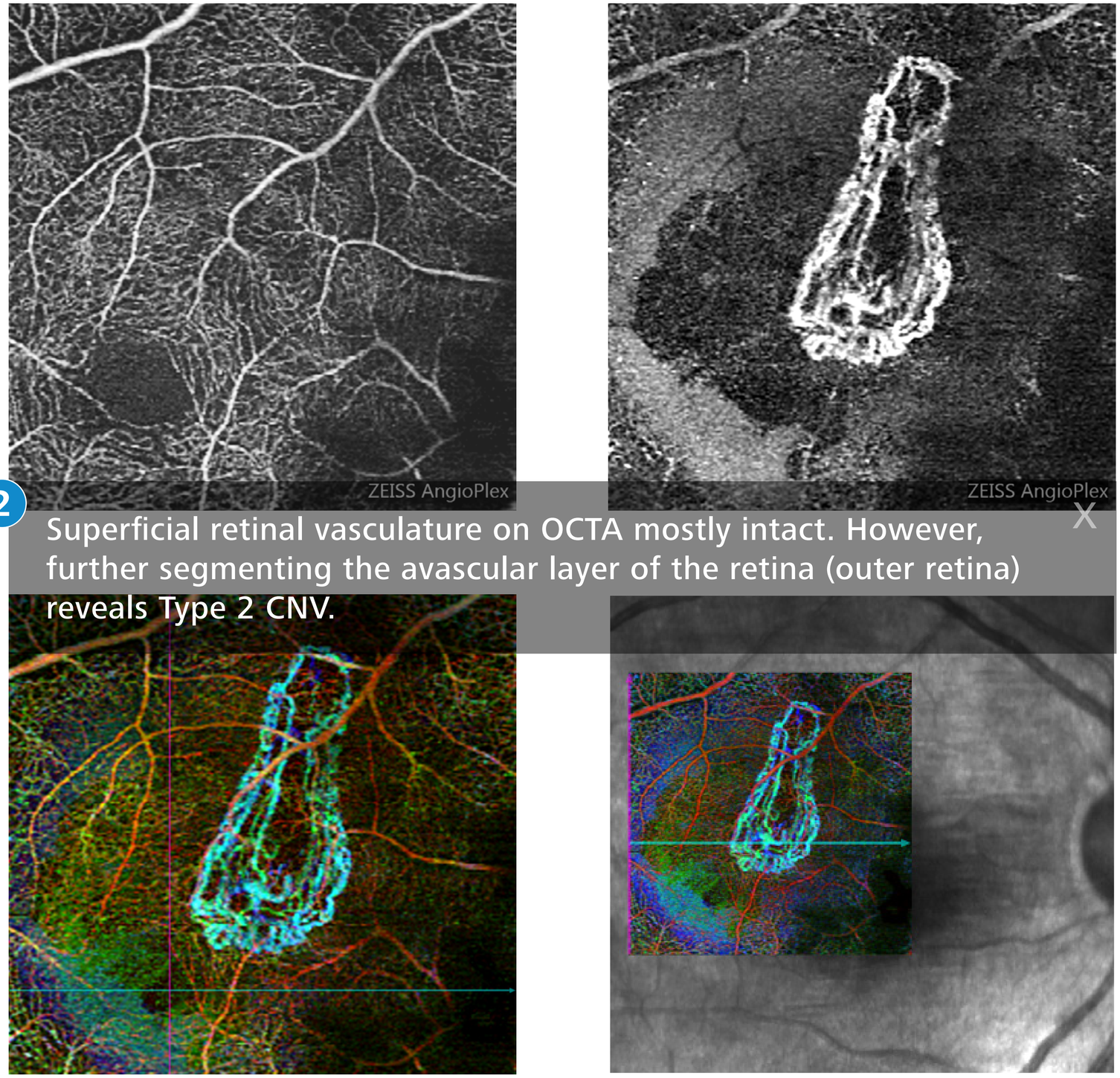

2

Superficial retinal vasculature on OCTA mostly intact. However, further segmenting the avascular layer of the retina (outer retina) reveals Type 2 CNV.

CE 0297

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