ZEISS AngioPlex OCT Angiography Overview

ZEISS OCT Angiography

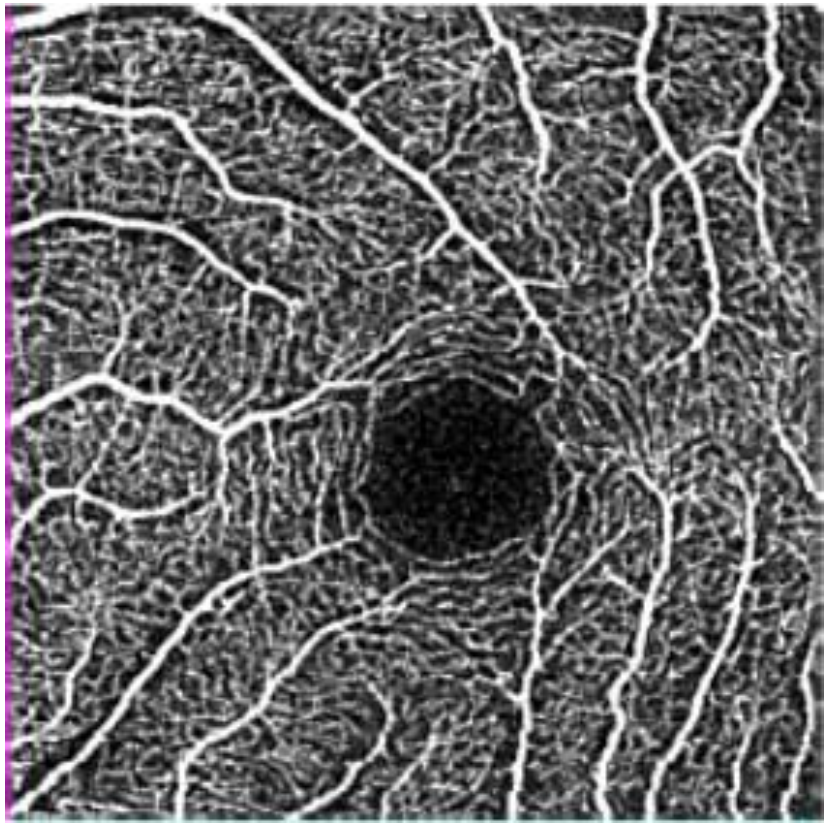
California, 2015-09-02

ZEISS AngioPlex

Ultra-clear visualization of **microvascular** blood flow using **non-invasive OCT** angiography

AngioPlex OCT Angiography from ZEISS

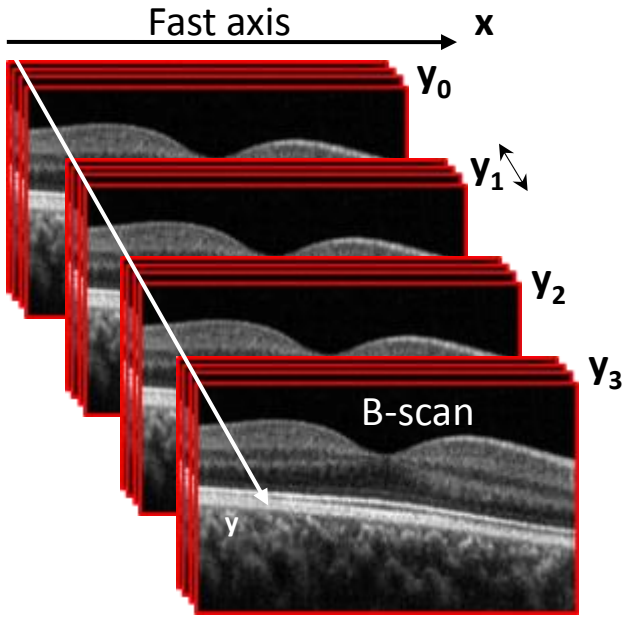
new
non-invasive
microvasculature
imaging technology



AngioPlex OCT Angiography allows visualization of both perfused vasculature and vascular abnormalities of the retina without the need of contrast.

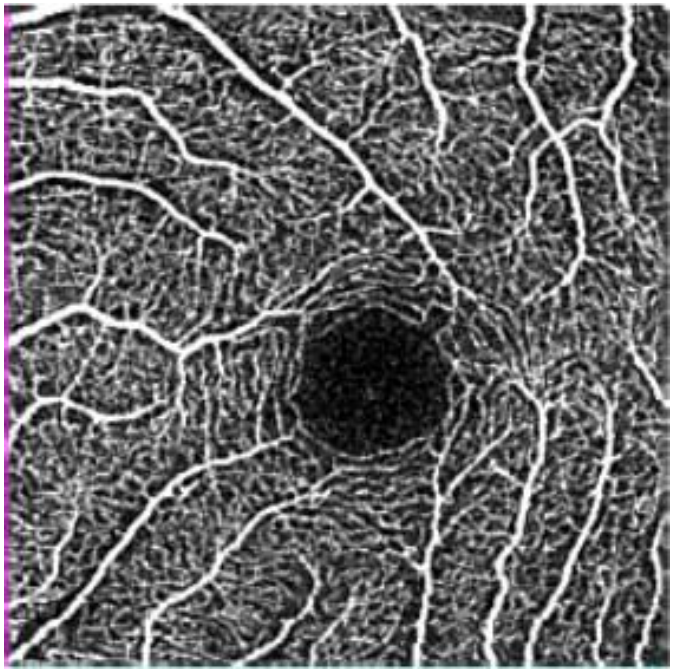
AngioPlex OCT Angiography from ZEISS

AngioPlex Technology



AngioPlex Technology detects motion of scattering particles such as red-blood cells within sequential OCT B-scans performed repeatedly at the same location of the retina.

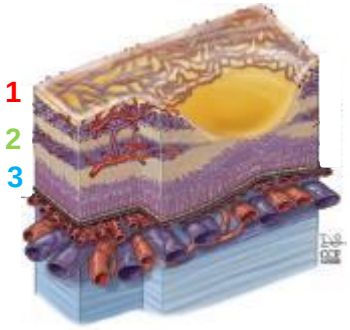
AngioPlex Maps



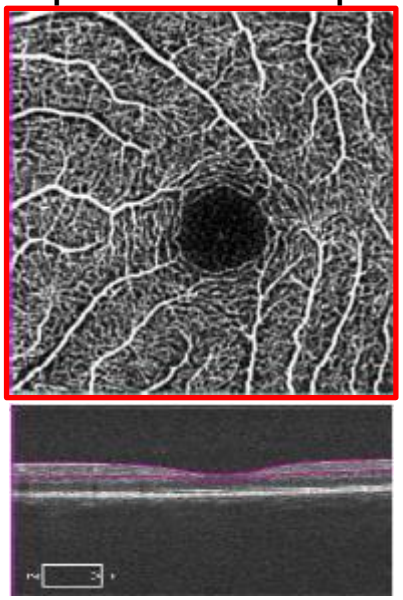
AngioPlex Maps consist of reconstruction of the perfused microvasculature within the retina and choroid.

AngioPlex Maps

AngioPlex Maps consists of a 2D representation of retinal the vasculature of a particular region of interest.

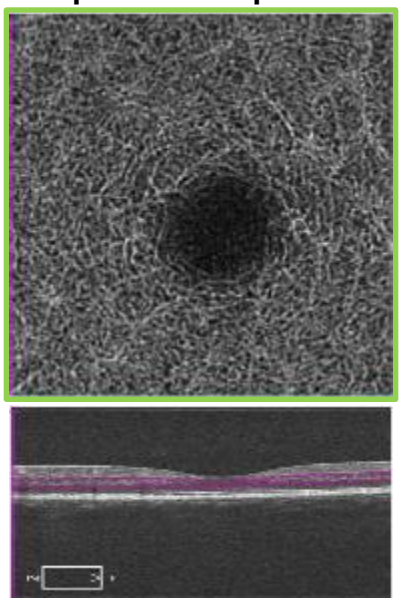


Superficial Retina Map



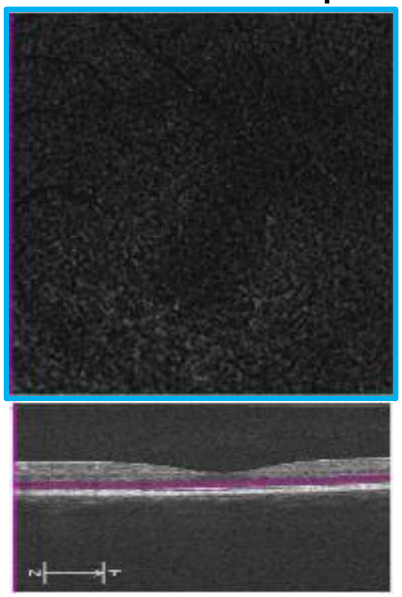
Visualization of blood flow in superficial retina.

Deep Retina Map



Visualization of blood flow in deep retina.

Avascular Retina Map

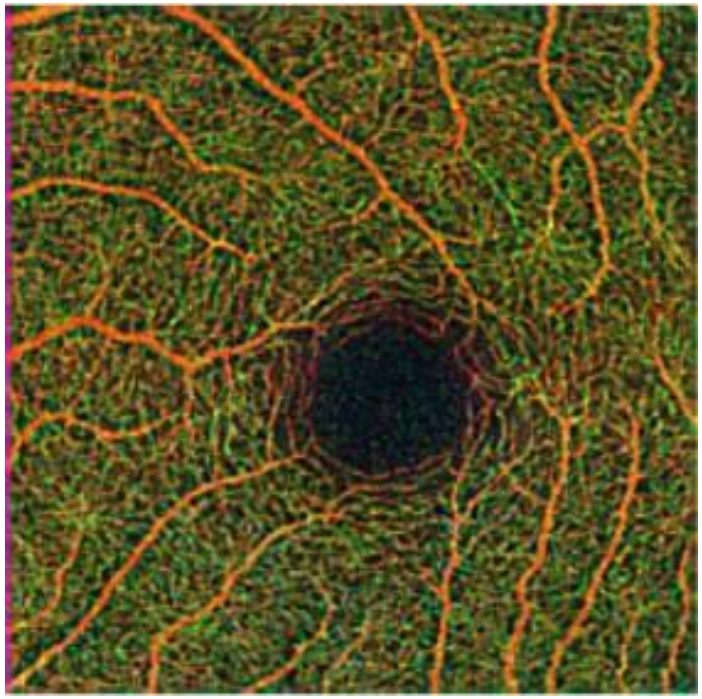


Avascular region of the retina in healthy eyes. Allows for detection of abnormal vascular growth.

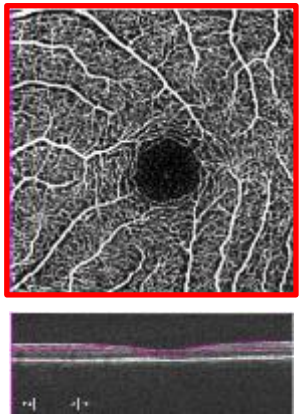
AngioPlex Color Depth Map

The color depth map combines superficial, deep and avascular retina maps and allows for depth visualization of retinal blood flow.

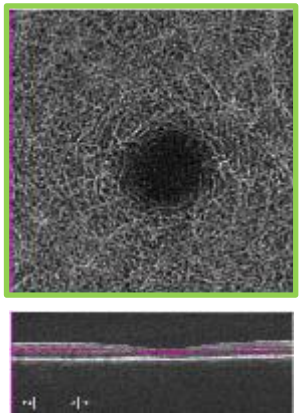
Color Depth Retina Map



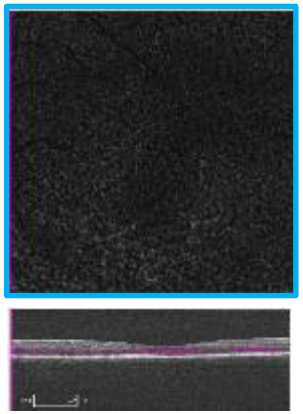
Superficial Retina



Deep Retina



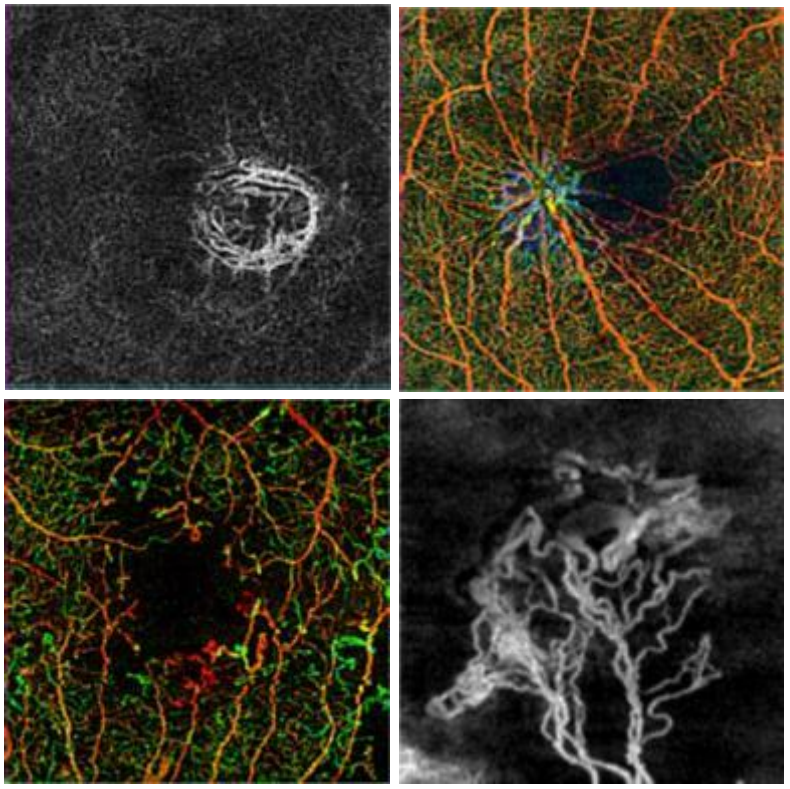
Avascular Retina



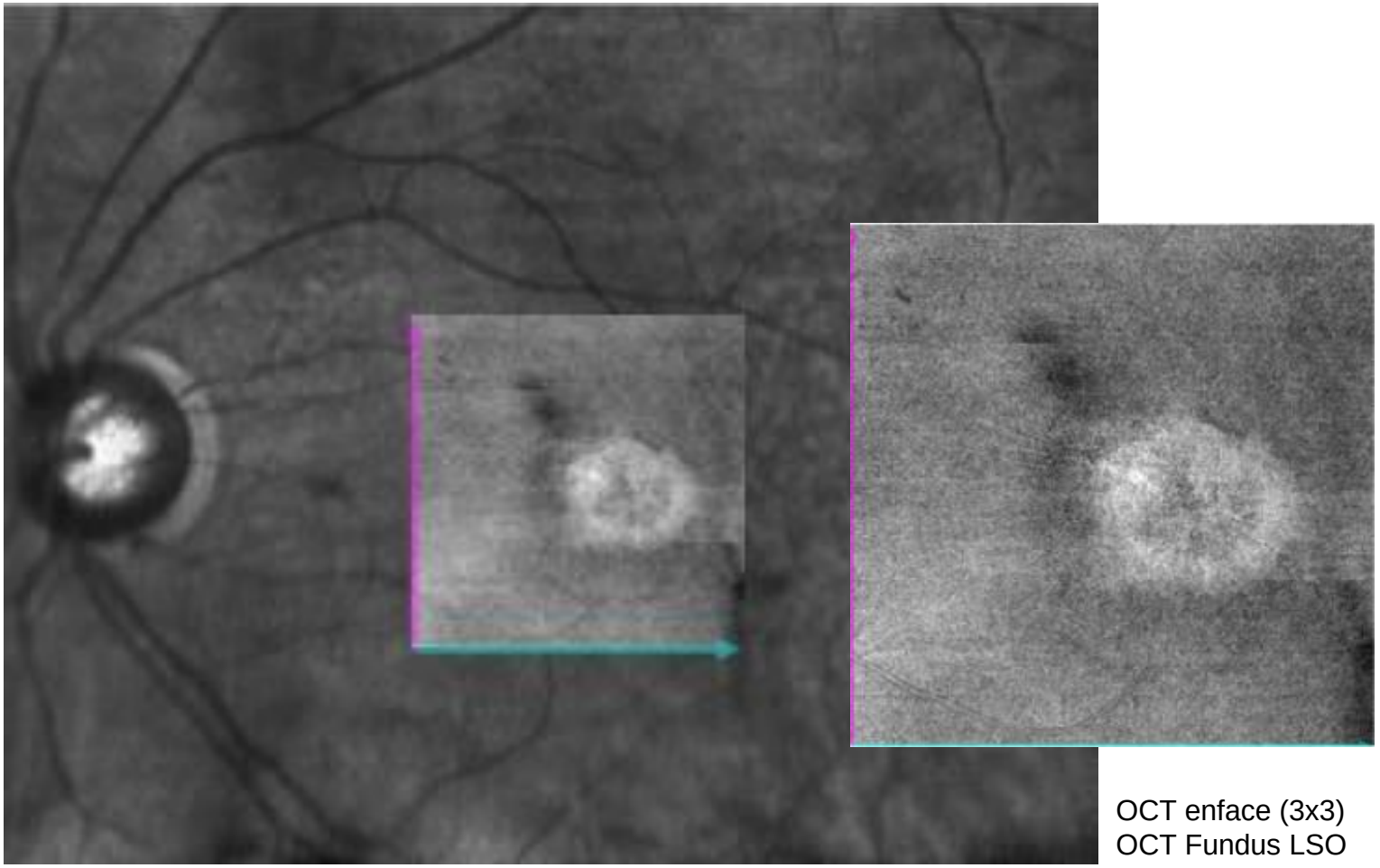
AngioPlex OCT Angiography from ZEISS
Potential clinical applications

AngioPlex can potentially be used to detect vascular structures, such as:

- Areas of CNV in AMD
- Neovascularization in Mactel
- Micro-aneurysms and ischemia in DR
- Occlusions and abnormalities in CRVO and BRVO cases
- Abnormalities of optic nerve vasculature



Clinical case #1: Wet AMD with CNV
64y Male, OS



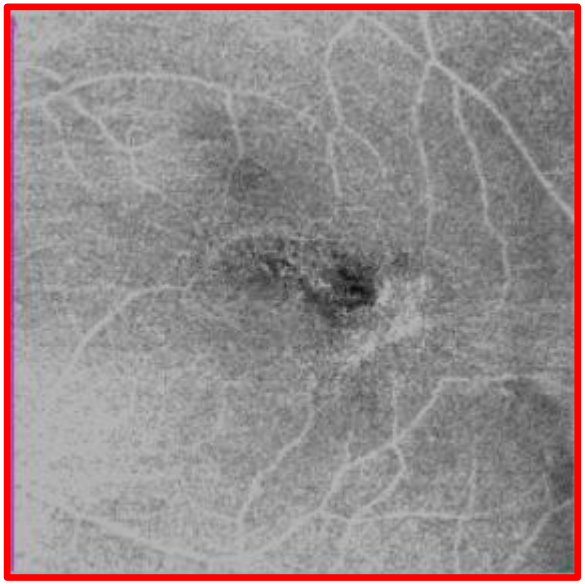
OCT enface (3x3)
OCT Fundus LSO

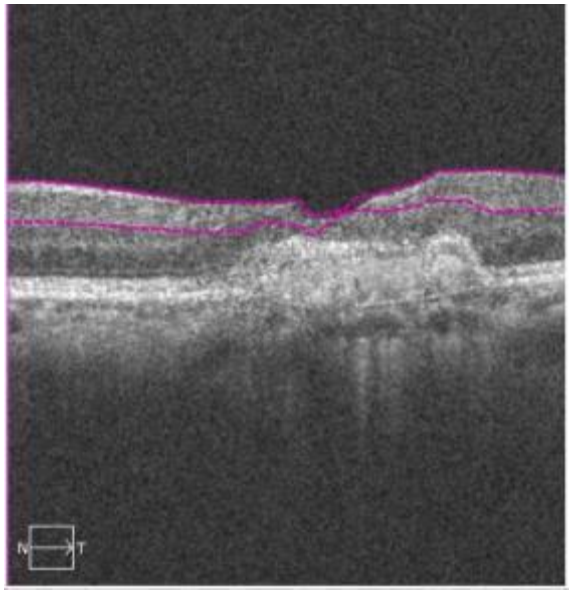
Courtesy of Prof. Philip Rosenfeld, Bascom Palmer Eye Institute, Miami, FL

Clinical case #1: Wet AMD with CNV
64y Male, OS

AngioPlex - CIRRUS
OCT Angiography
Superficial Retina

OCT Enface
Superficial Retina





Courtesy of Prof. Philip Rosenfeld, Bascom Palmer Eye Institute, Miami, FL

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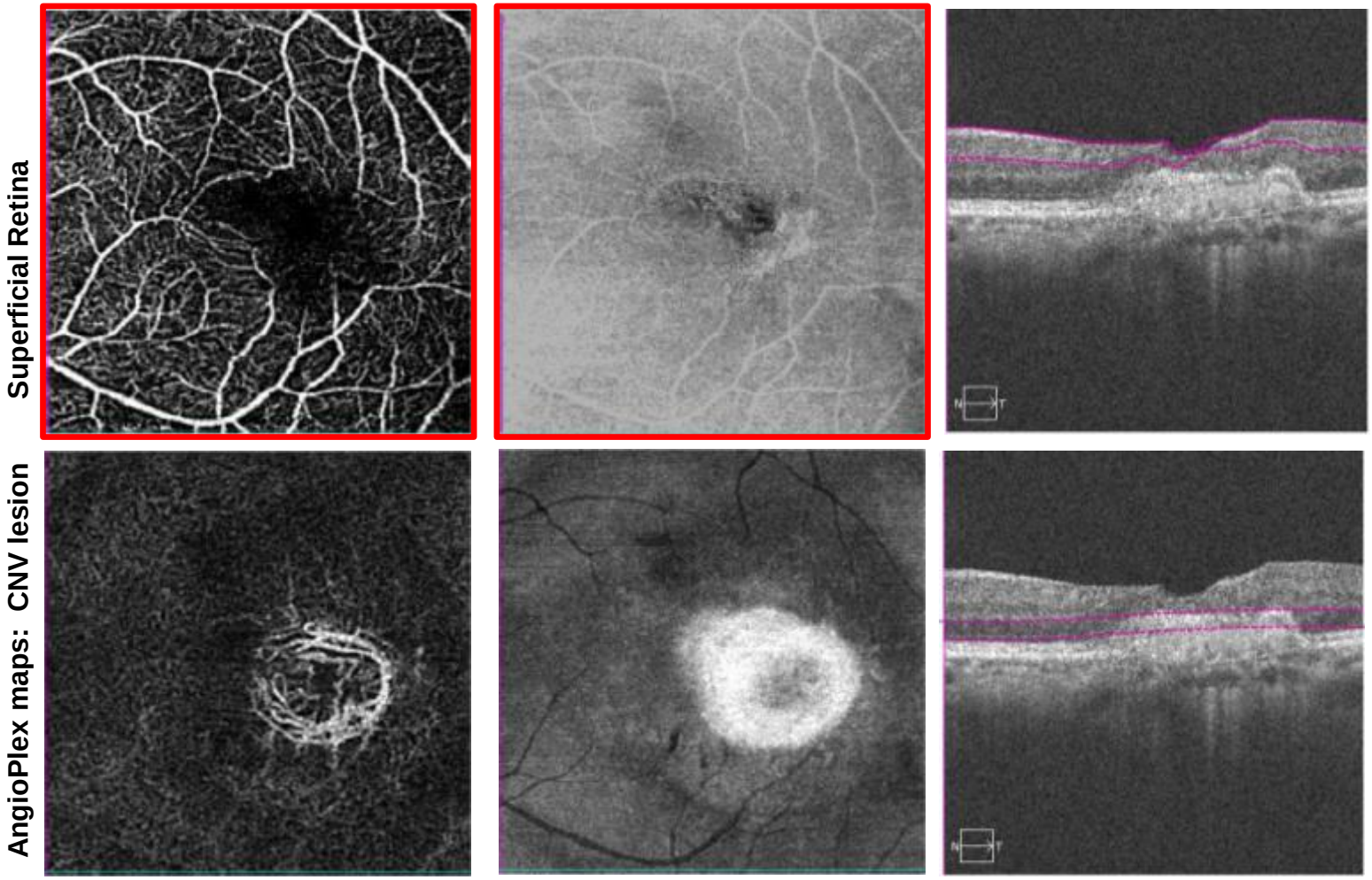
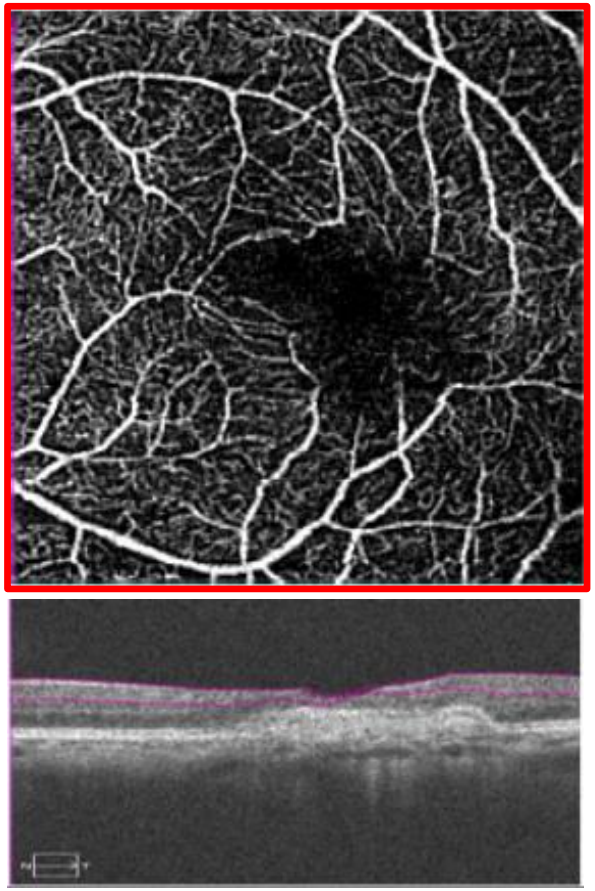
64y Male, OS



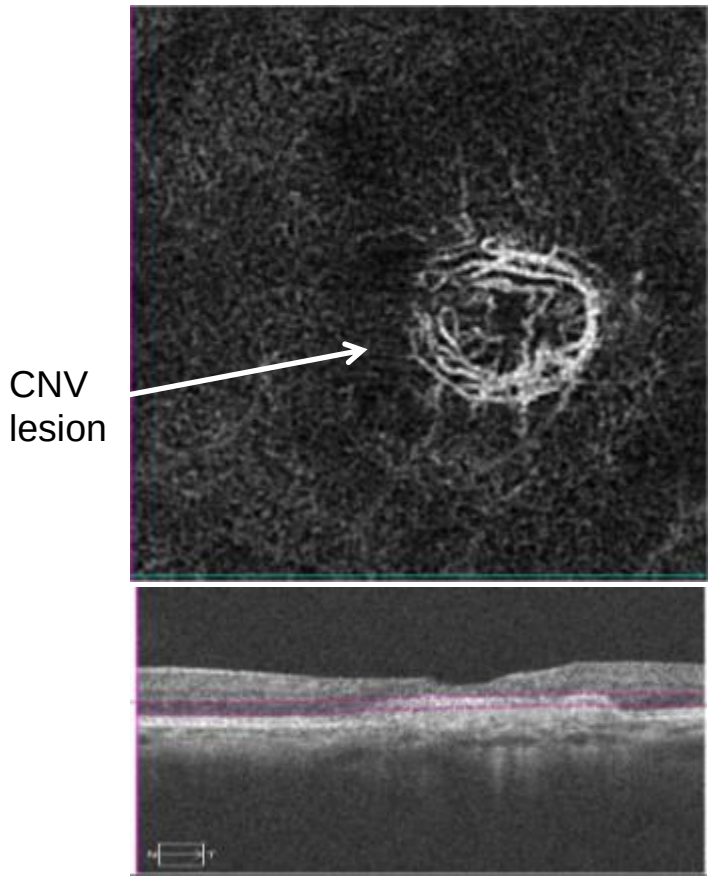
Courtesy of Prof. Philip Rosenfeld, Bascom Palmer Eye Institute, Miami, FL

Clinical case #1: Wet AMD with CNV
64y Male, OS

CIRRUS OCT Angiography
Superficial Retina

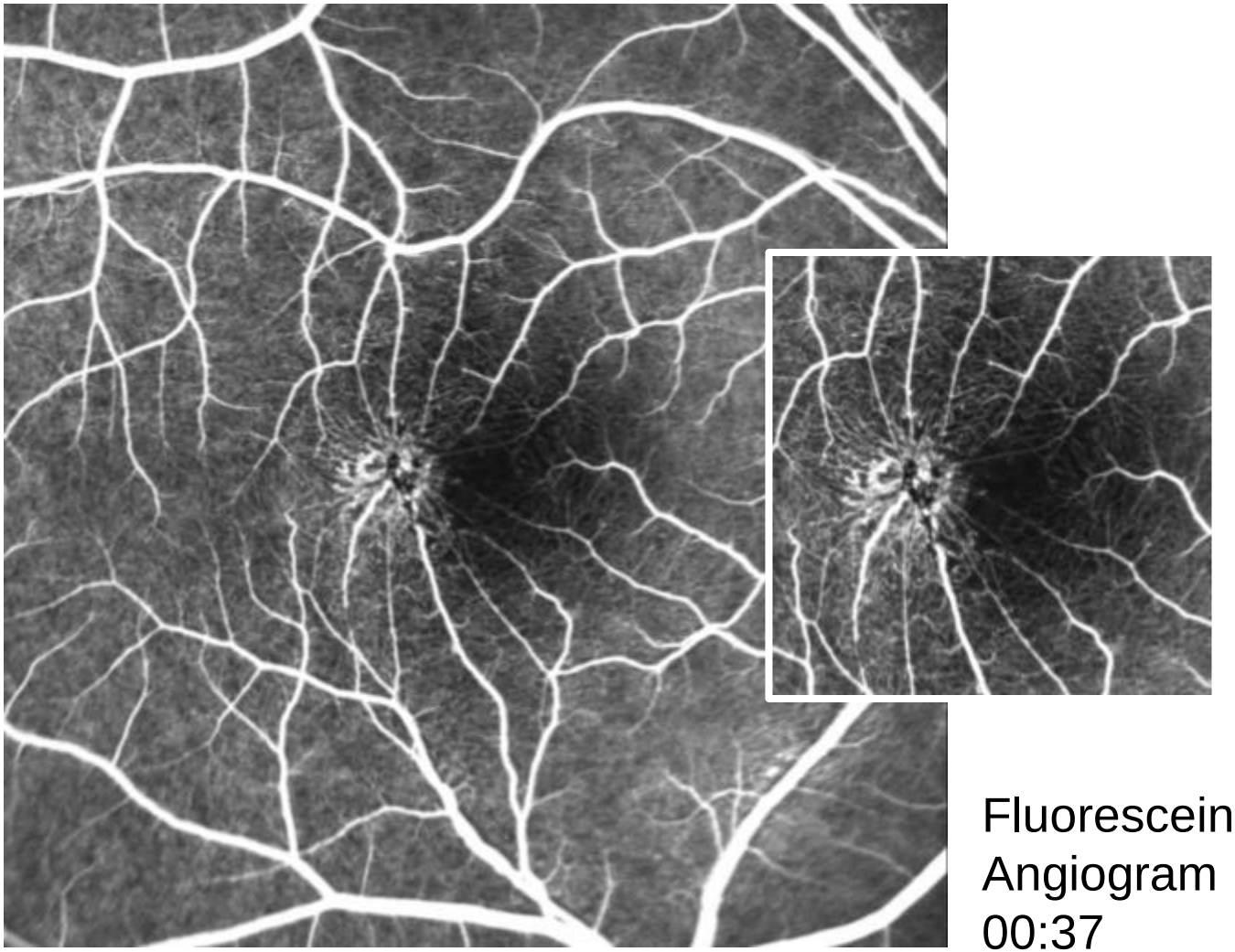


CIRRUS OCT Angiography
Map through CNV Lesion



Courtesy of Prof. Philip Rosenfeld, Bascom Palmer Eye Institute, Miami, FL

Clinical case #2: MacTel Type 2
56y Female, OD

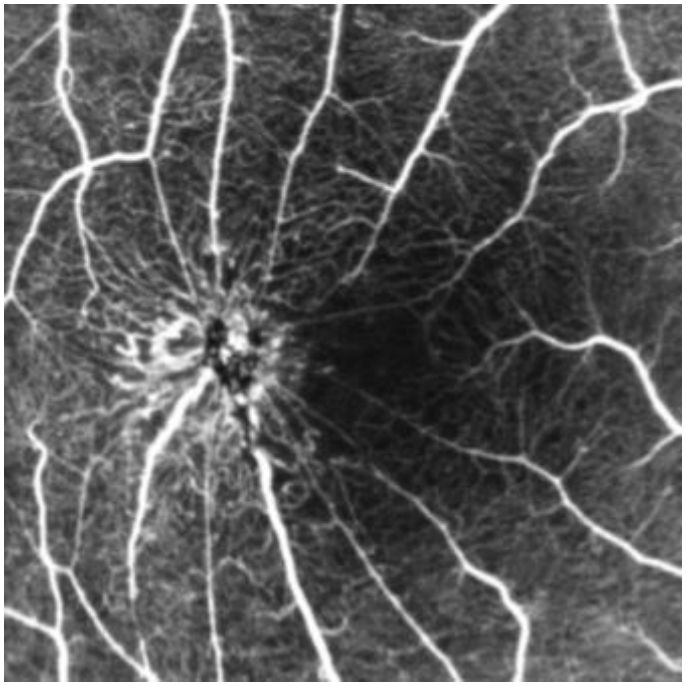


Fluorescein Angiogram 00:37

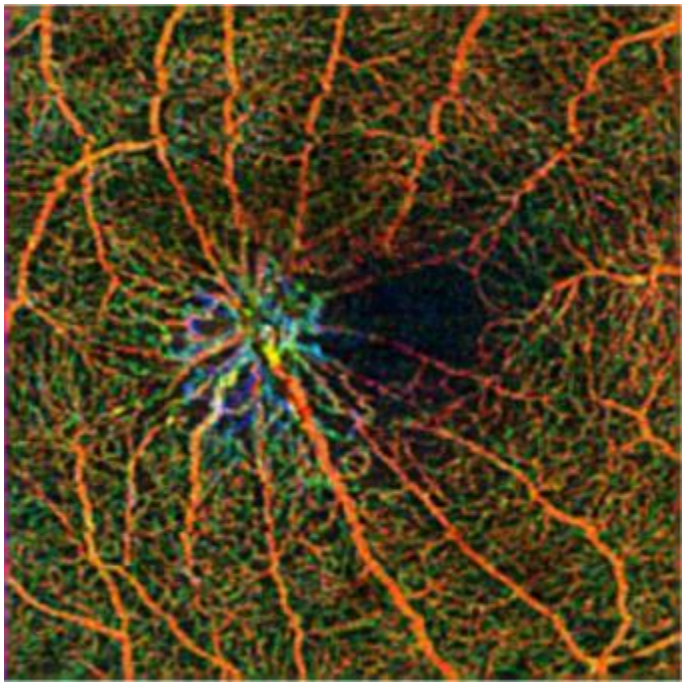
Courtesy of Prof. Philip Rosenfeld, Bascom Palmer Eye Institute, Miami, FL

Clinical case #2: MacTel Type 2
56y Female, OD

Comparison between Fluorescein Angiography and AngioPlex



Fluorescein Angiogram
00:37

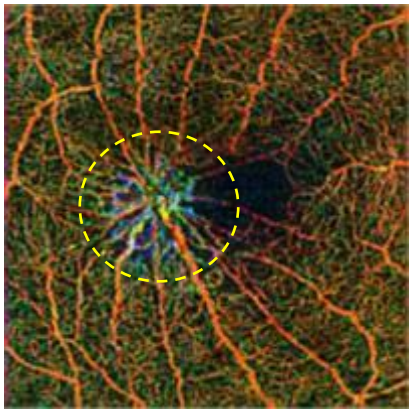


AngioPlex Map
Color Depth Retina

Courtesy of Prof. Philip Rosenfeld, Bascom Palmer Eye Institute, Miami, FL

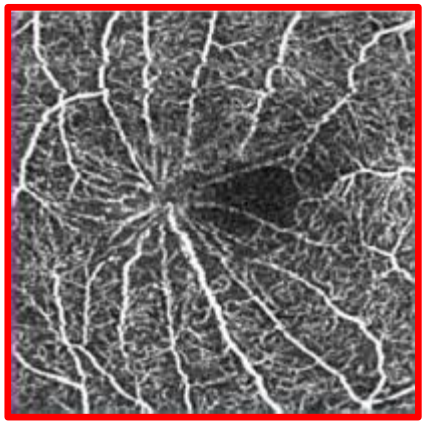
Clinical case #2: MacTel Type 2
56y Female, OD

AngioPlex Maps

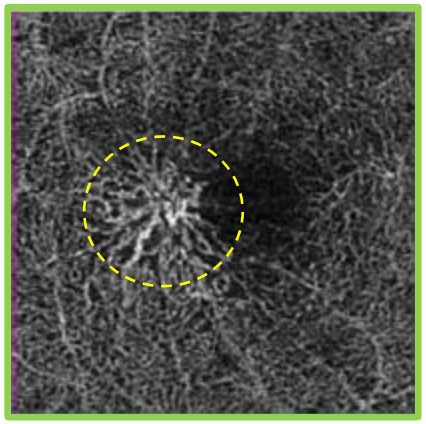


Color depth Retina

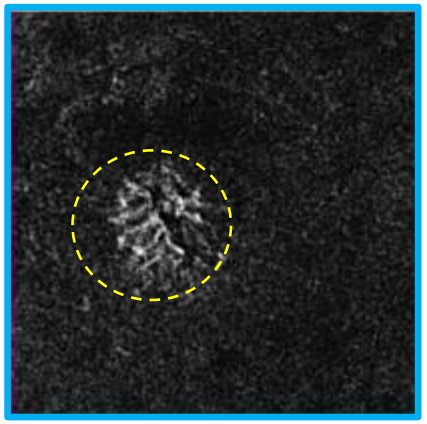
AngioPlex maps highlight regions of abnormal vasculature within the retina



Superficial Retina



Deep Retina

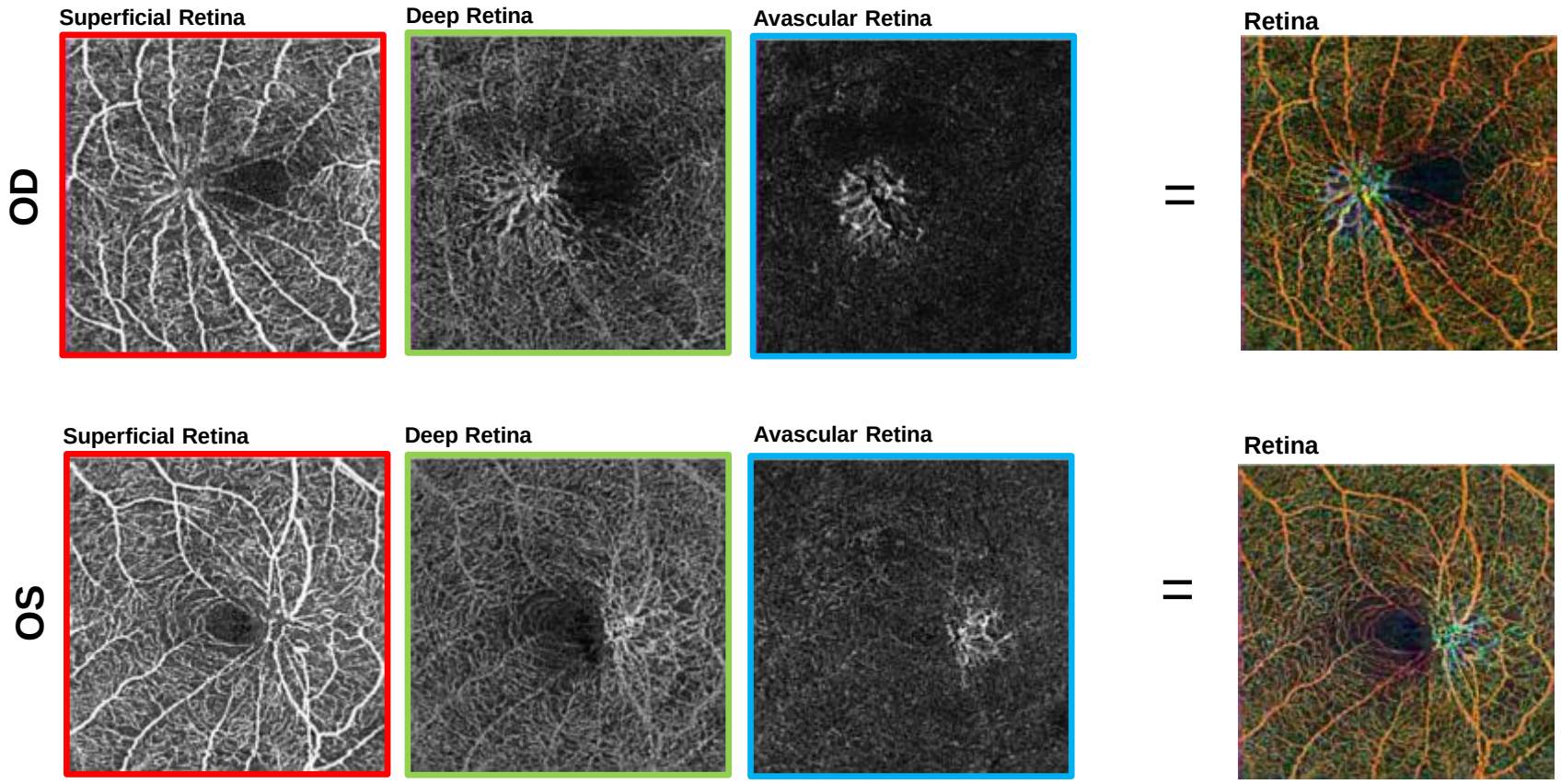


Avascular Retina

Courtesy of Prof. Philip Rosenfeld, Bascom Palmer Eye Institute, Miami, FL

Clinical case #2: MacTel Type 2
56y Female, OU

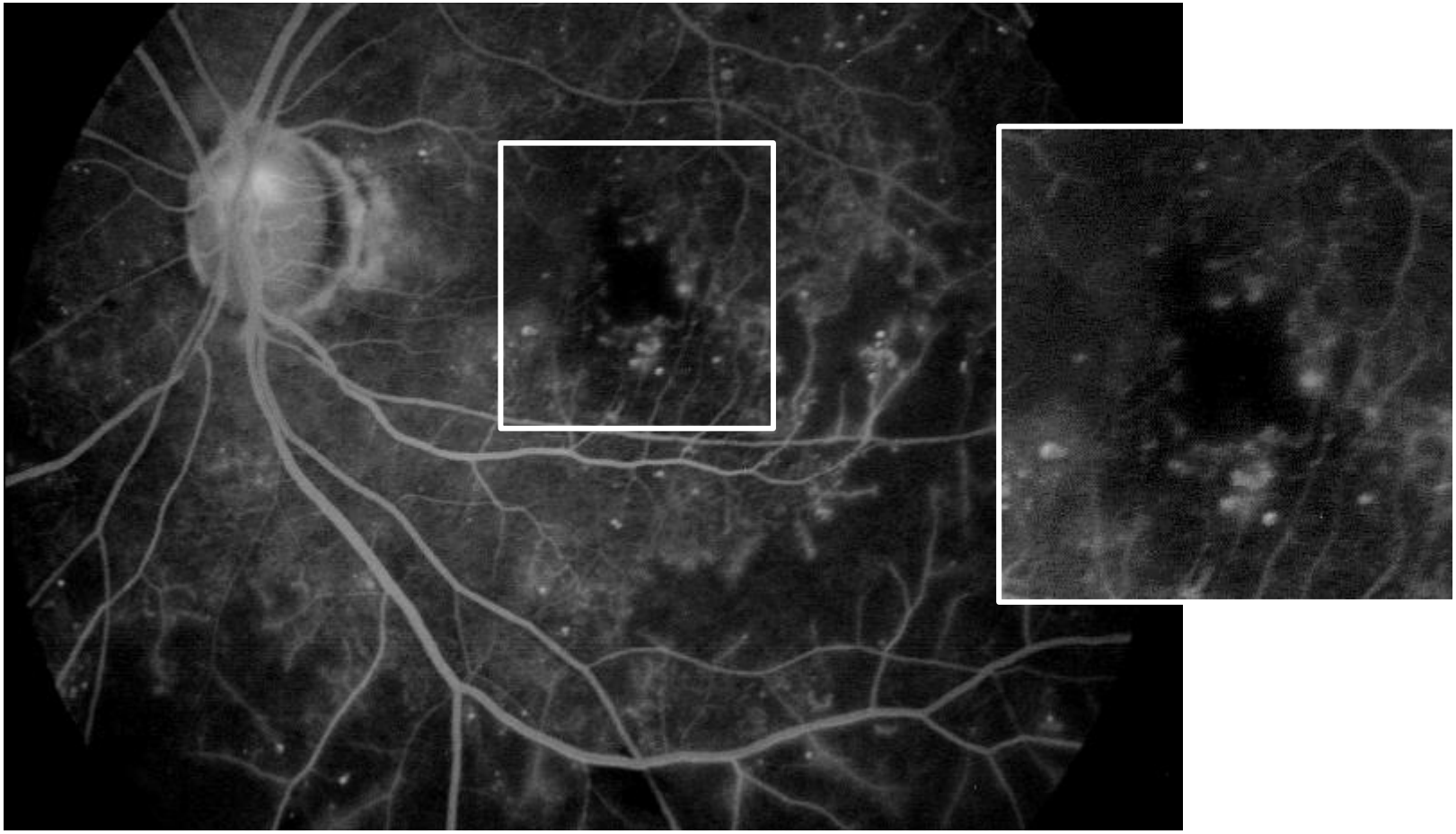
AngioPlex Maps



Courtesy of Prof. Philip Rosenfeld, Bascom Palmer Eye Institute, Miami, FL

Clinical case #3: PDR
57y Male, OS

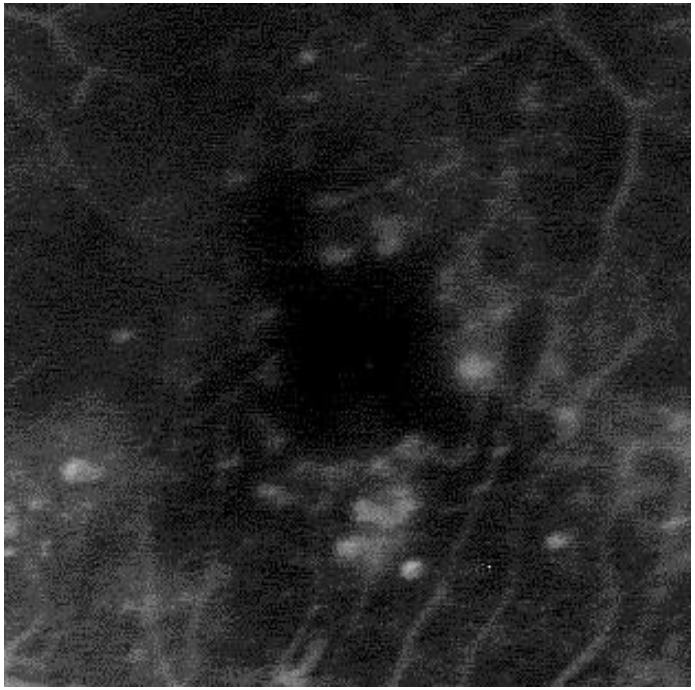
Fluorescein Angiogram Early phase



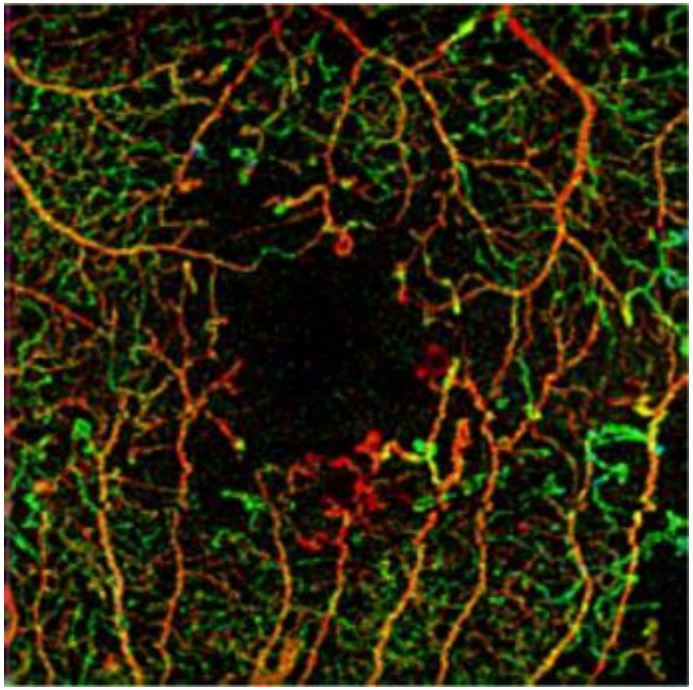
Courtesy of Dr. Scott Lee, East Bay Retina Consultants, Oakland, CA

Clinical case #3: PDR
57y Male, OS

Comparison between Fluorescein Angiography and AngioPlex



Fluorescein Angiogram
00:37

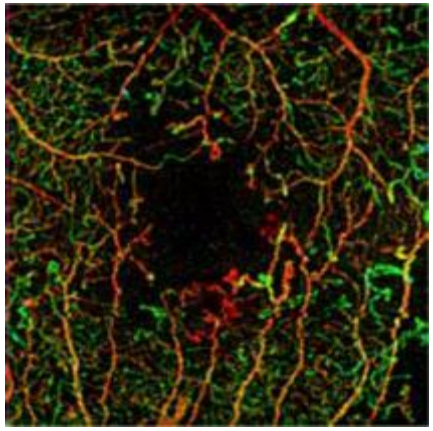


AngioPlex Map
Color Depth Retina

Courtesy of Dr. Scott Lee, East Bay Retina Consultants, Oakland, CA

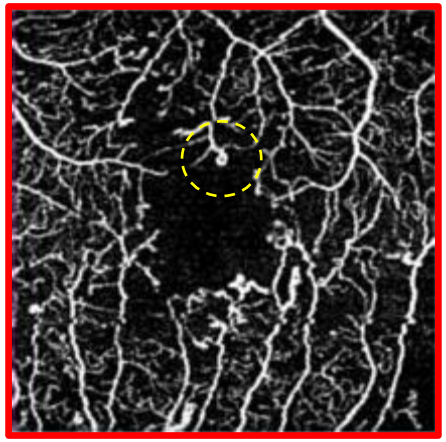
Clinical case #3: PDR
57y Male, OS

AngioPlex Maps

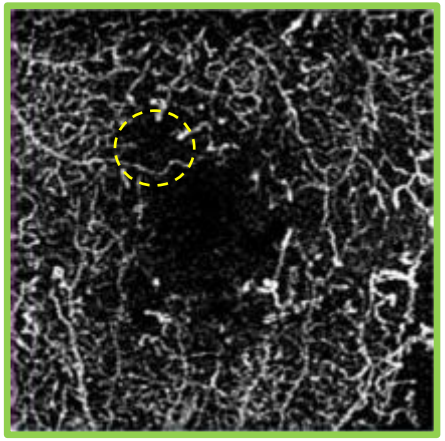


Color depth Retina

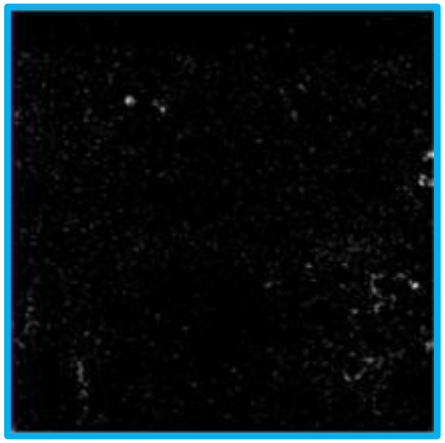
AngioPlex maps highlight regions of abnormal vasculature (micro-aneurysm, ischemia) within the retina



Superficial Retina



Deep Retina

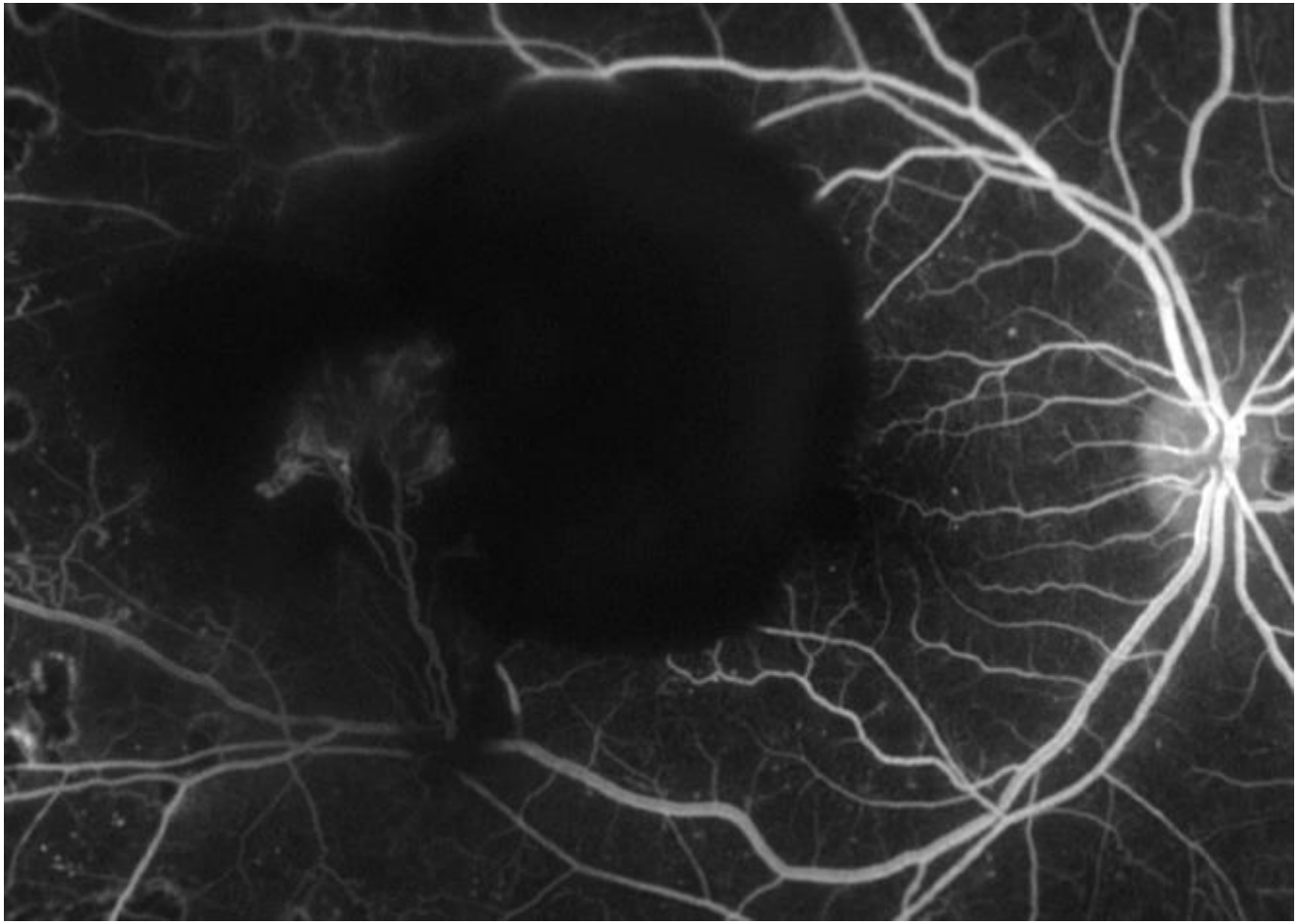


Avascular Retina

Courtesy of Dr. Scott Lee, East Bay Retina Consultants, Oakland, CA

Clinical case #4: DR with NVE
37y Male, OD

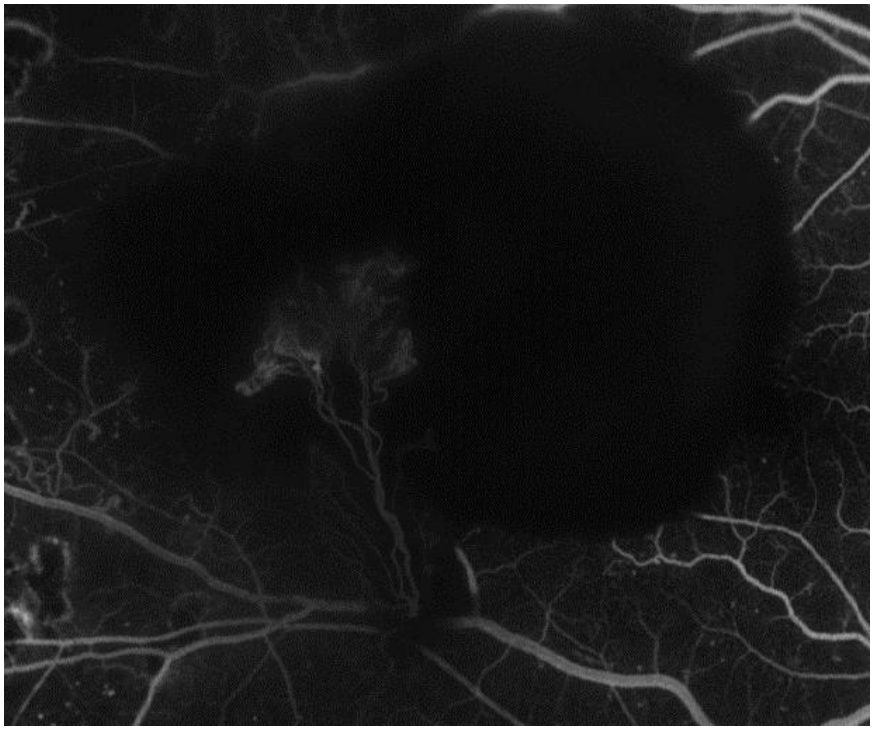
Fluorescein Angiogram Early phase



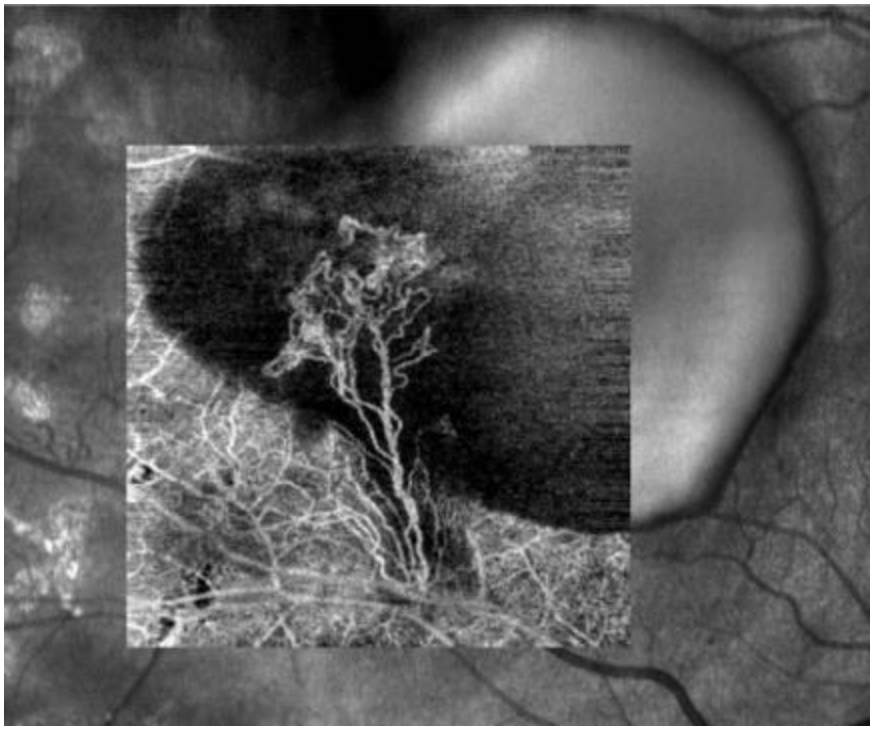
Courtesy of Dr. Soraya Rofagha, East Bay Retina Consultants, Oakland, CA

Clinical case #4: DR with NVE
37y Male, OD

Comparison between Fluorescein Angiography and AngioPlex



Fluorescein Angiogram
34s



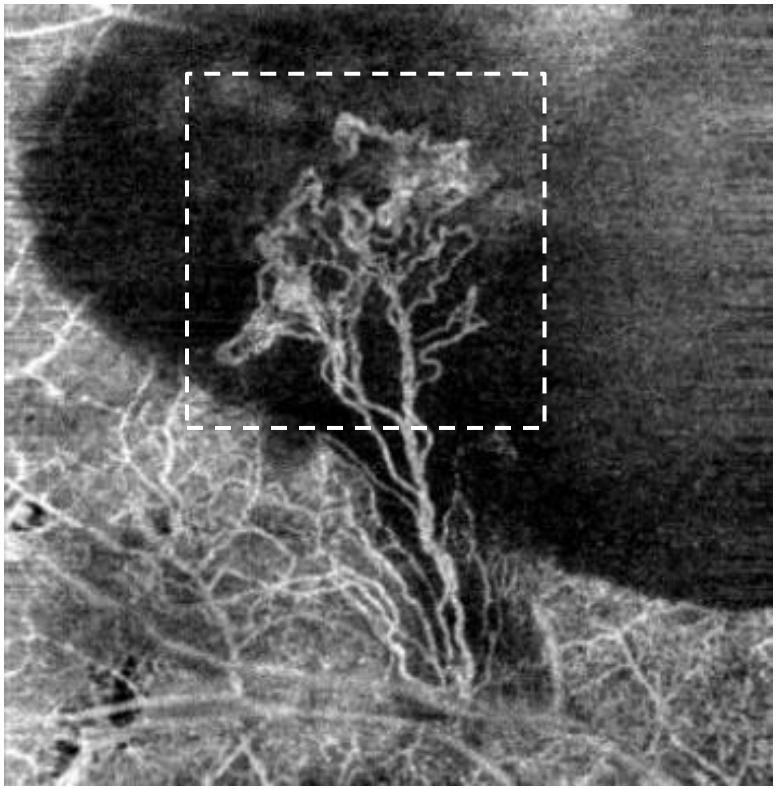
AngioPlex Map overlay on OCT Fundus LSO
Full Retina

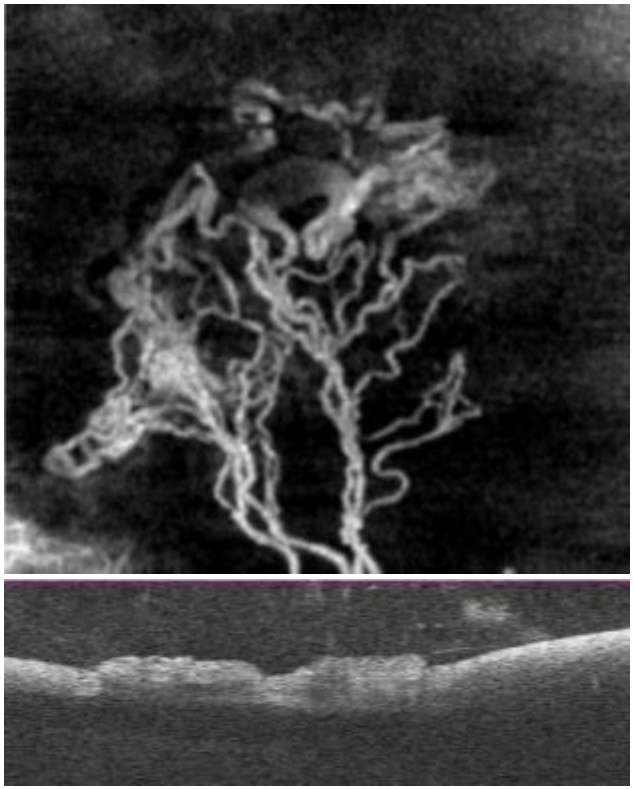
Courtesy of Dr. Soraya Rofagha, East Bay Retina Consultants, Oakland, CA

Clinical case #4: DR with NVE
37y Male, OD

AngioPlex Maps

AngioPlex maps highlight regions of abnormal vasculature in the vitreous

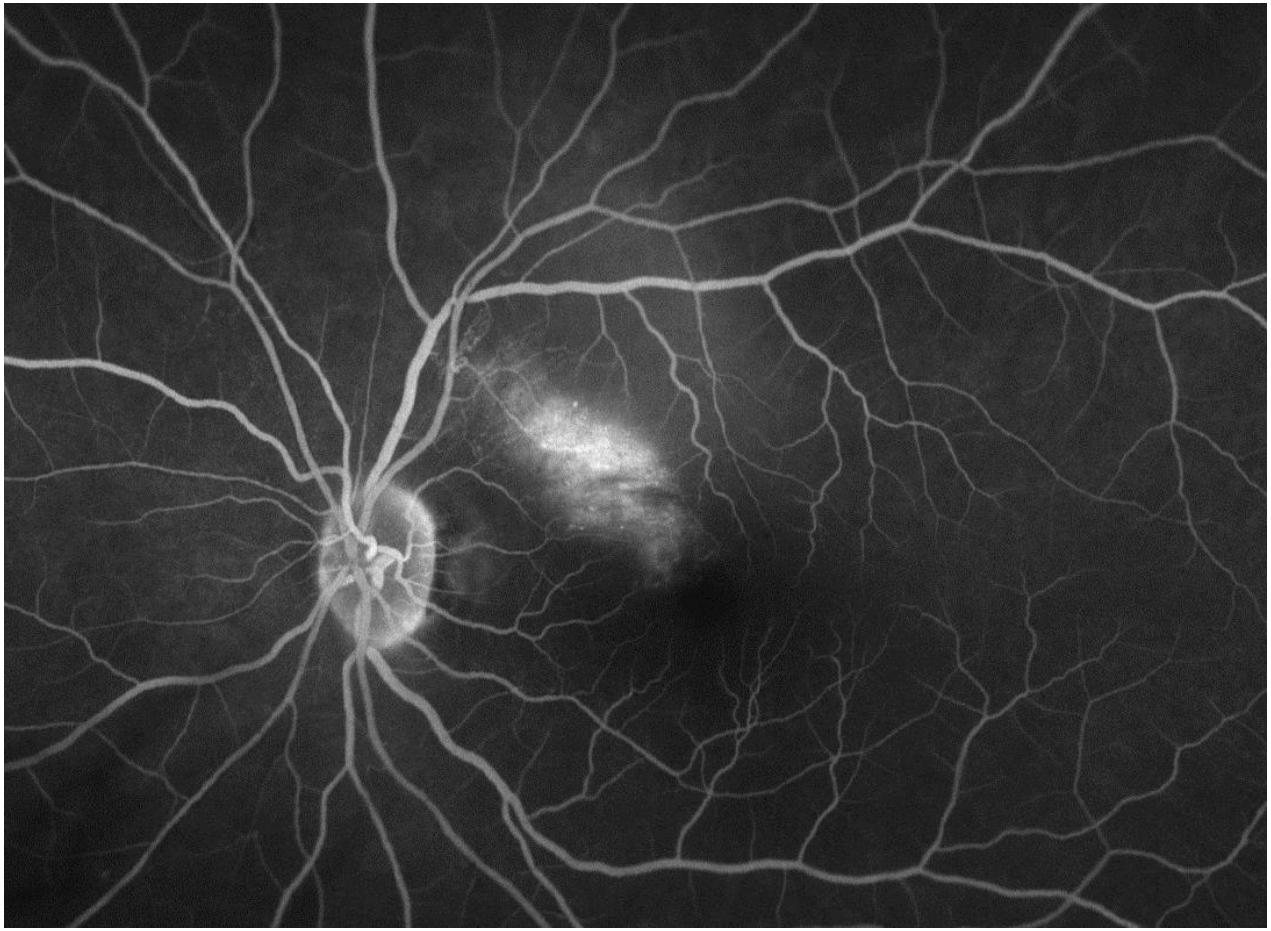




Courtesy of Dr. Soraya Rofagha, East Bay Retina Consultants, Oakland, CA

Clinical case #5: BRVO
44y Female, OS

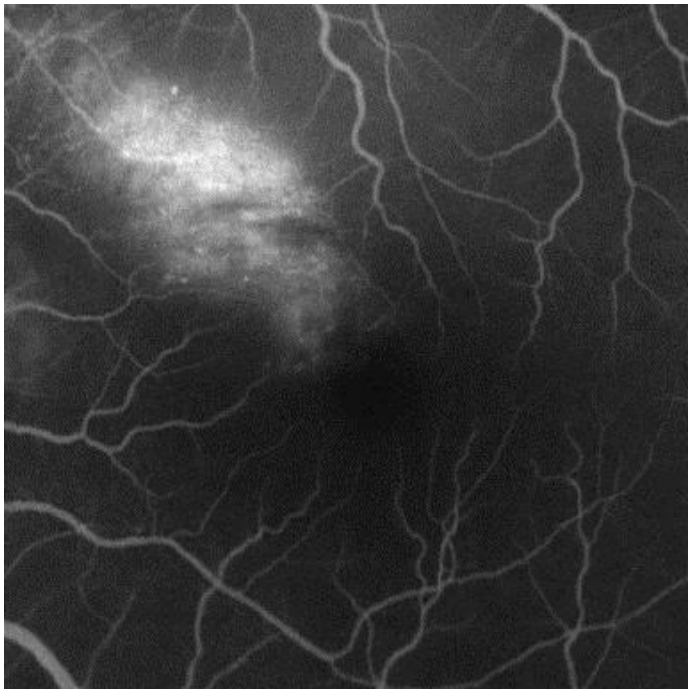
Fluorescein Angiogram Late phase



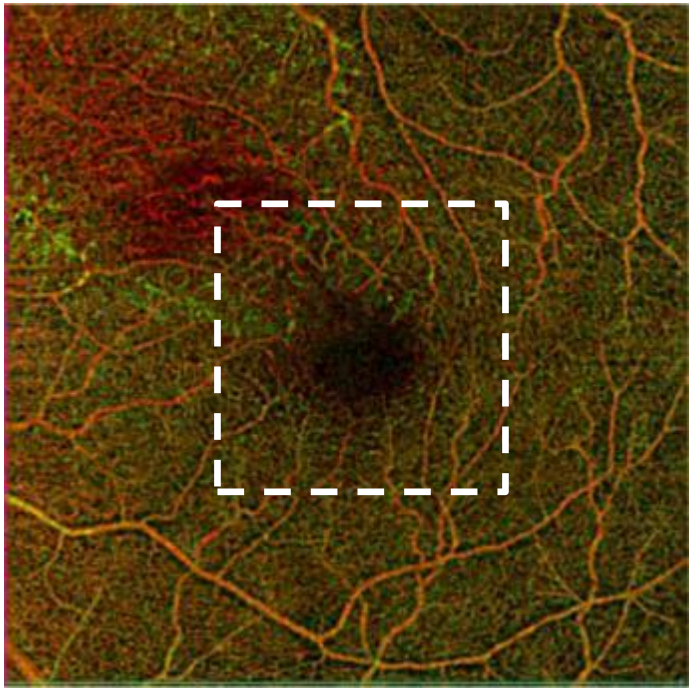
Courtesy of Dr. Soraya Rofagha, East Bay Retina Consultants, Oakland, CA

Clinical case #5: BRVO
44y Female, OS

Comparison between Fluorescein Angiography and AngioPlex



Fluorescein Angiogram
10 mins

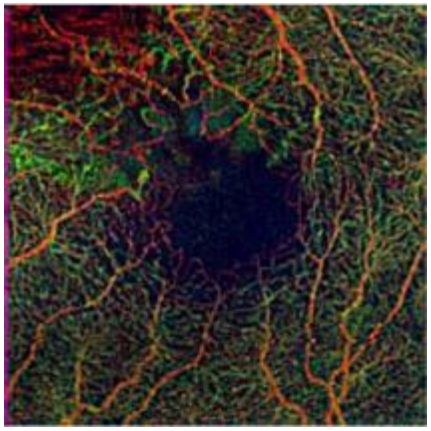


AngioPlex Map
Color Depth Retina

Courtesy of Dr. Soraya Rofagha, East Bay Retina Consultants, Oakland, CA

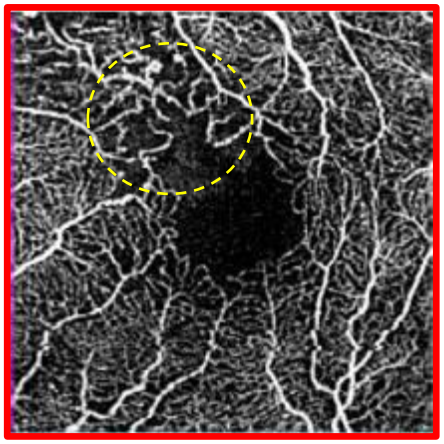
Clinical case #5: BRVO
44y Female, OS

AngioPlex Maps

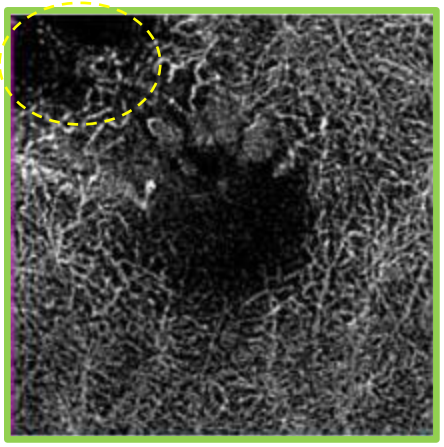


Color depth Retina

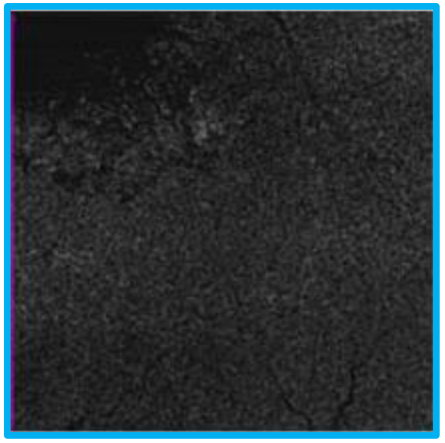
AngioPlex maps identify regions of abnormal vasculature (micro-aneurysm, ischemia) within the retina



Superficial Retina



Deep Retina

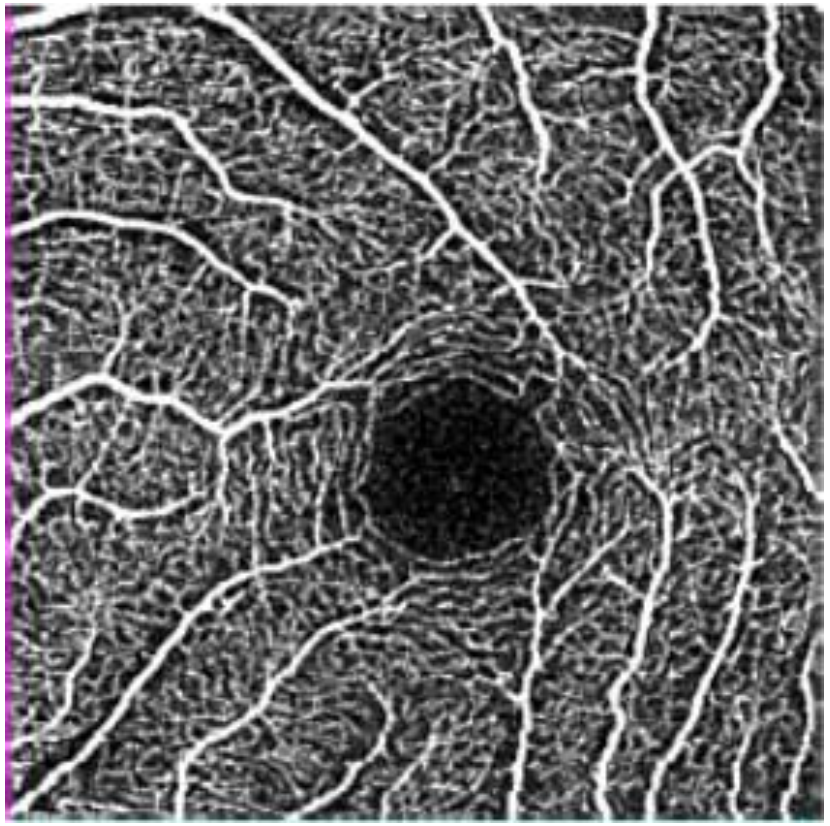


Avascular Retina

Courtesy of Dr. Soraya Rofagha, East Bay Retina Consultants, Oakland, CA

AngioPlex OCT Angiography from ZEISS

new
non-invasive
microvasculature
imaging technology



CIRRUS AngioPlex OCT Angiography allows visualization of both perfused vasculature and vascular abnormalities of the retina without the need of contrast.

We make it visible.