

## Specifications

### OCT Model: BM-400K

OCT optical source	Swept Source
Center wavelength	1060nm

### OCT B-scan

Scan speed	400,000 A-scans/sec
Max. Length (posterior)	24mm
Max. Length (anterior)	24mm
Scan depth (posterior)	6mm
Scan depth (anterior)	6mm
Refractive adjustment range	-35D to +45D
Axial optical resolution	≤6μm
Transverse optical resolution	10μm

### Fundus Imaging

Methodology	Scanning Laser Ophthalmoscopy (SLO)
SLO wavelength	850nm
SLO FOV	60° ×60°
Minimum pupil diameter	2.0mm
Eye tracking speed	128Hz

### OCT Angiography

Max. Single scan size (anterior)	18mm×18mm
Max. Single scan size (posterior)	24mm×20mm
Maximum resolution (single scan)	1536×1280
Max. scan size (montage)	42mm×40mm

### Software Functions

Anterior segment (AS) quantification	<input checked="" type="checkbox"/>
AS panoramic parameters	<input checked="" type="checkbox"/>
Thickness/volumn measurement (retina)	<input checked="" type="checkbox"/>
Thickness/volumn measurement (choroid)	<input checked="" type="checkbox"/>
Glaucoma analysis (GMA, ONH, etc.)	<input checked="" type="checkbox"/>
Blood flow quantification (retina)	<input checked="" type="checkbox"/>
Blood flow quantification (choroid)	<input checked="" type="checkbox"/>
Blood flow quantification (optic disk)	<input checked="" type="checkbox"/>
Blood flow quantification (AS)	<input checked="" type="checkbox"/>
Posterior curvature	<input checked="" type="checkbox"/>
3D structure	<input checked="" type="checkbox"/>
3D vessel	<input checked="" type="checkbox"/>



TowardPi

# BMizar

400KHz | Full Range SS-OCT/OCTA



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CE Marking under the EU MDR



TowardPi

# BMizar

400KHz Full Range Ultra-Wide Field Swept-Source OCT/OCTA



**400KHz**  
**24x20mm**

*Ultra-Wide Field OCTA  
Self-Innovated High-Speed  
Acquisition Card*

**10 Billion Voxels**

*Ultra-High Resolution  
1536x1280*

*Brand-New Choroid  
OCT Angiography*

# BMizar

**The World's First 400KHz**  
Full Range Ultra-Wide Field Swept-Source OCT

**Self-Innovated**  
Homemade component parts

**Ten Billion Voxels**  
Ultra- High Resolution

**New Patent Choroid OCTA Algorithms**

**7-15 seconds High Speed**  
Ultra-Wide Field OCTA Acquisition

**All-Slabs and All-Sizes**  
Quantification Analysis

**No additional lens**  
Animal scan

**Multi Platforms Imaging**  
Joint Diagnosis

# Development History of OCT Technology

OCT technology is a paradigm of medicine, engineering integration and continuous innovation. Full-range swept-source OCT technology reveals significant advantages in multiple dimensions such as scanning speed, imaging depth, and visualizing field etc.

**1996**

**Time-Domain OCT  
(Linear Scan)**

<1K A-scan/sec  
Single B-scan  
2mm Depth

**2002**

**Time-Domain OCT  
(Resonance Scan)**

<10K A-scan/sec  
HD Single B-scan  
2mm Depth

**2006**

**Spectral-Domain OCT  
(Frequency-Domain OCT)**

20-100K A-scan/sec  
3D-OCT, OCTA  
1.8-3mm Depth

**2016**

**Swept Source OCT**

100K A-scan/sec  
Wide-Field OCTA  
2-3mm Depth

**2022**

**Full Range Swept Source OCT**

100-400K A-scan/sec  
Ultra-Wide Field OCTA  
6-12mm Depth  
16-24mm length

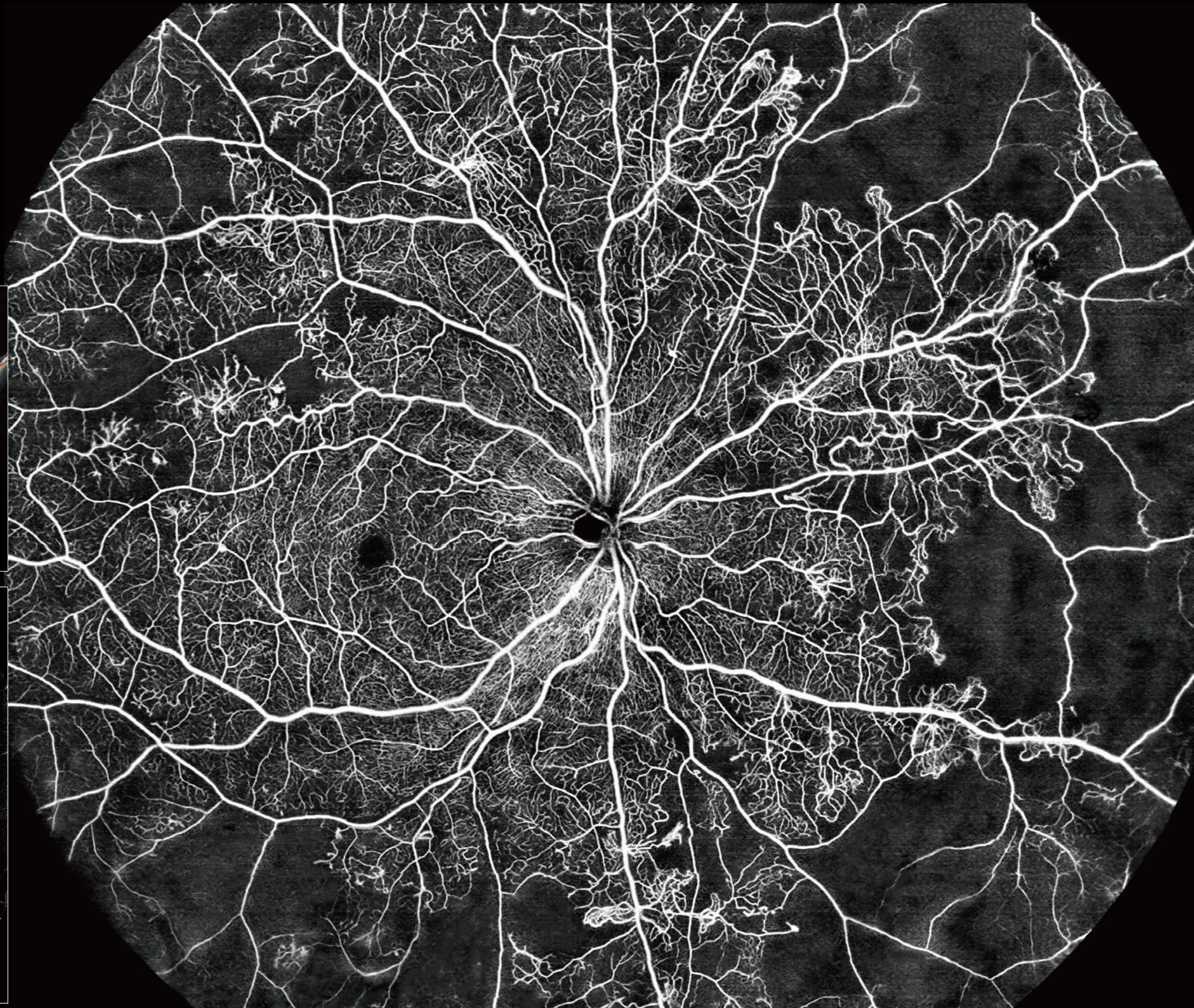
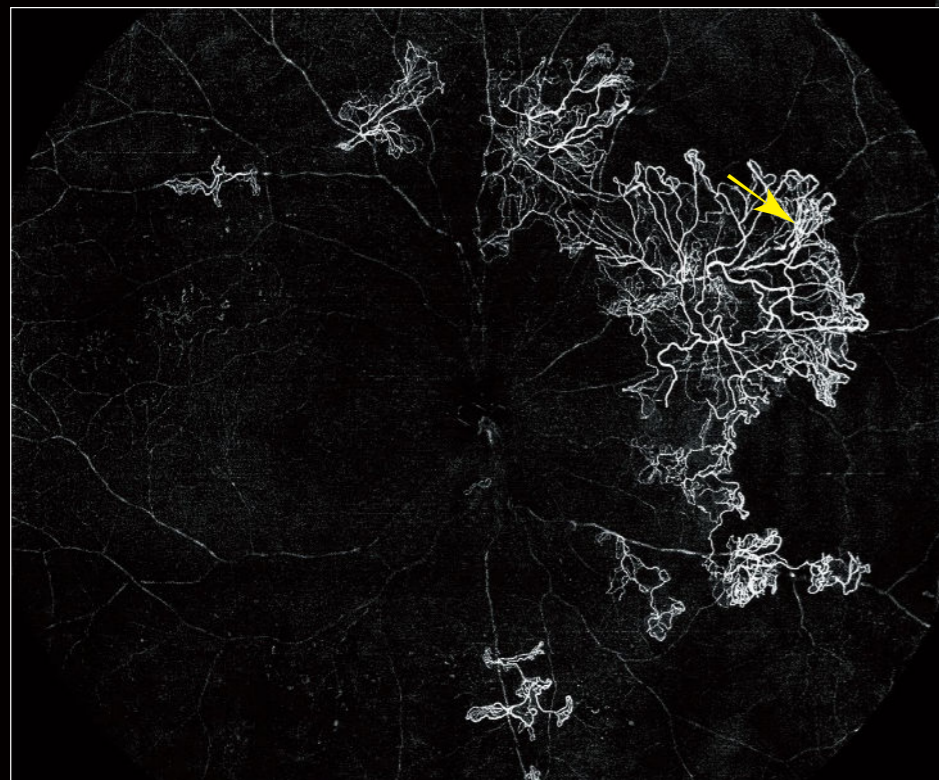
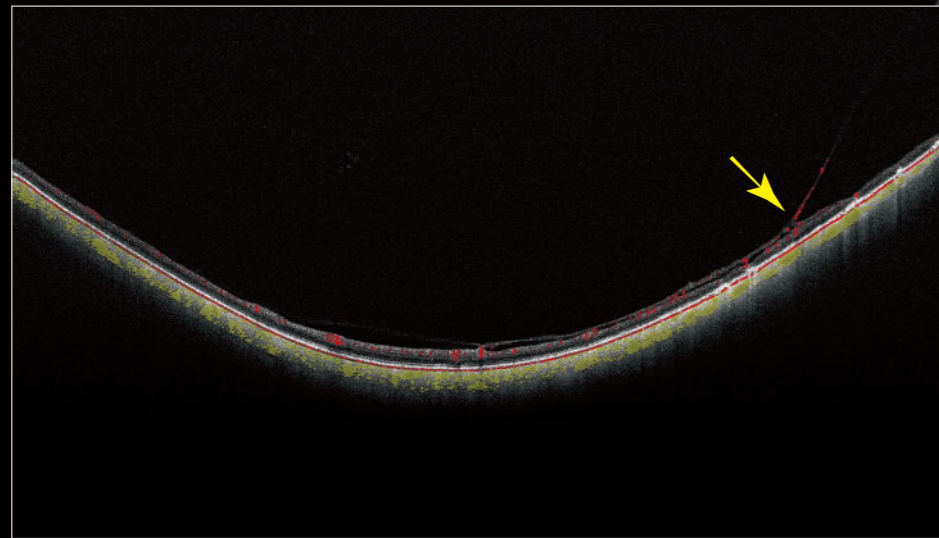
## Find More Details with Single Capture

10 Billion maximal voxels

24X20mm ultra-wide field OCTA

1536x1280 ultra-high resolution

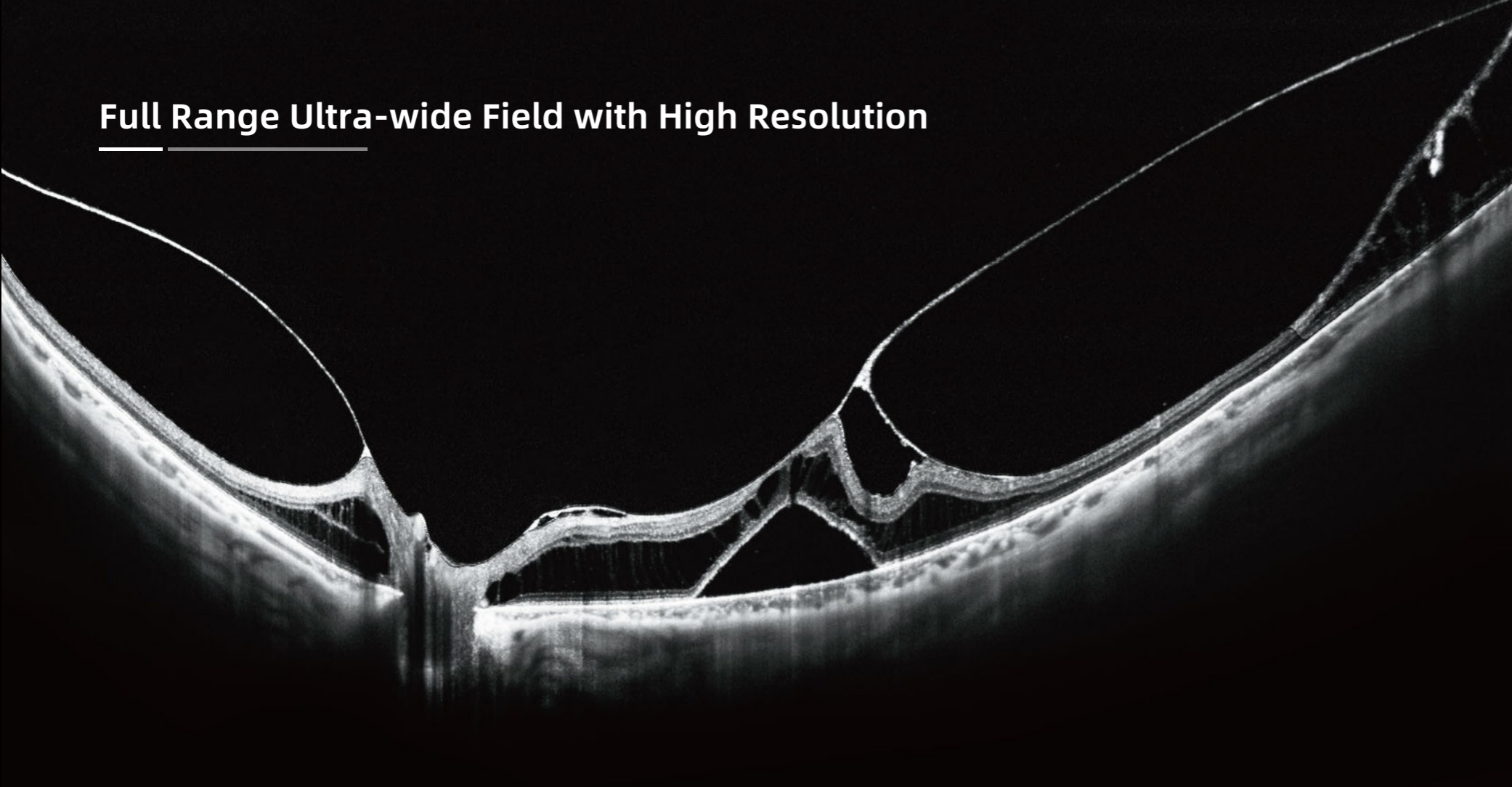
Fast acquisition speed (7-15 seconds)



Neovascular membrane (vitreal slab)

Proliferative diabetic retinopathy (PDR)

**Full Range Ultra-wide Field with High Resolution**

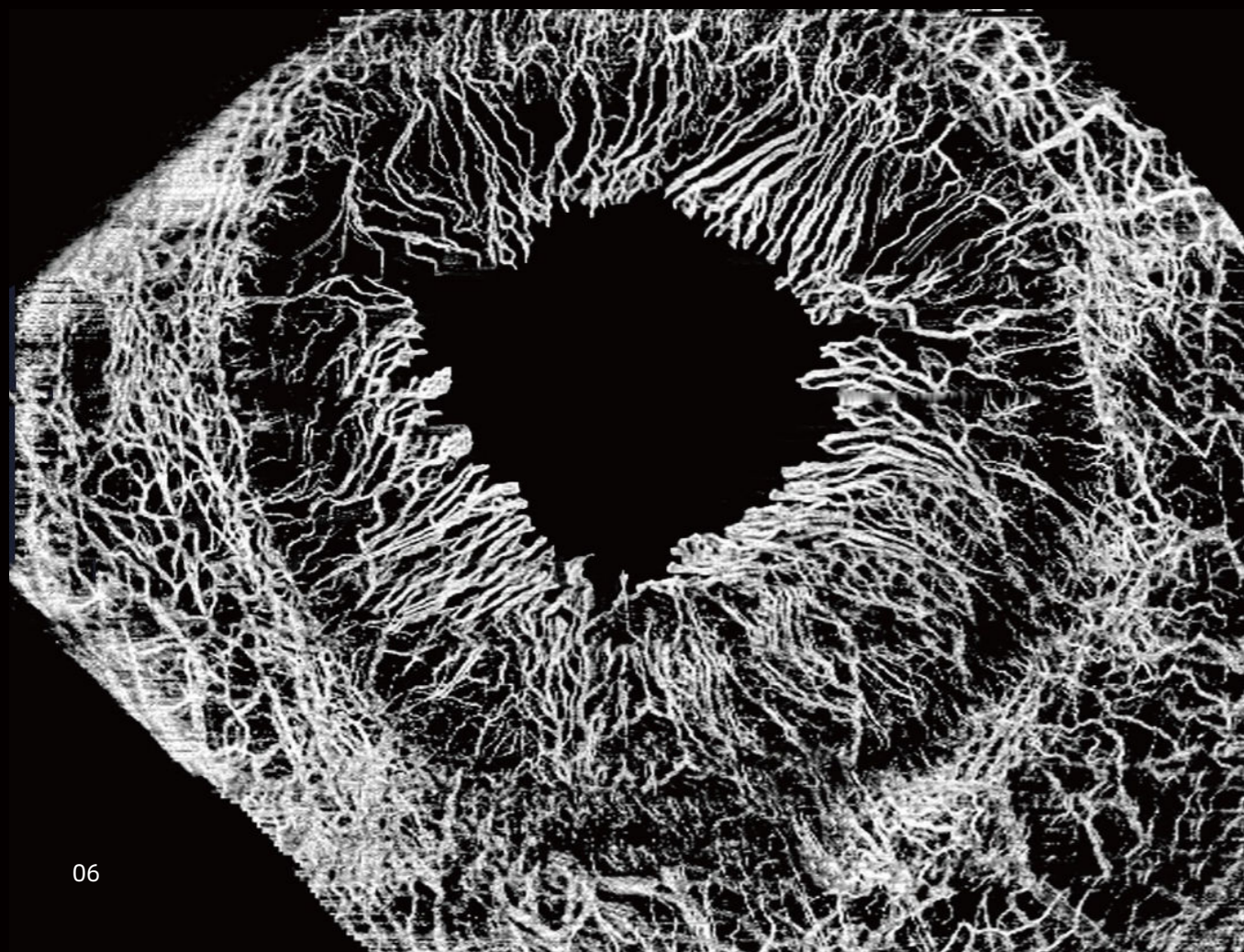


24mm length, 6mm scan depth | Vitreomacular traction (VMT)

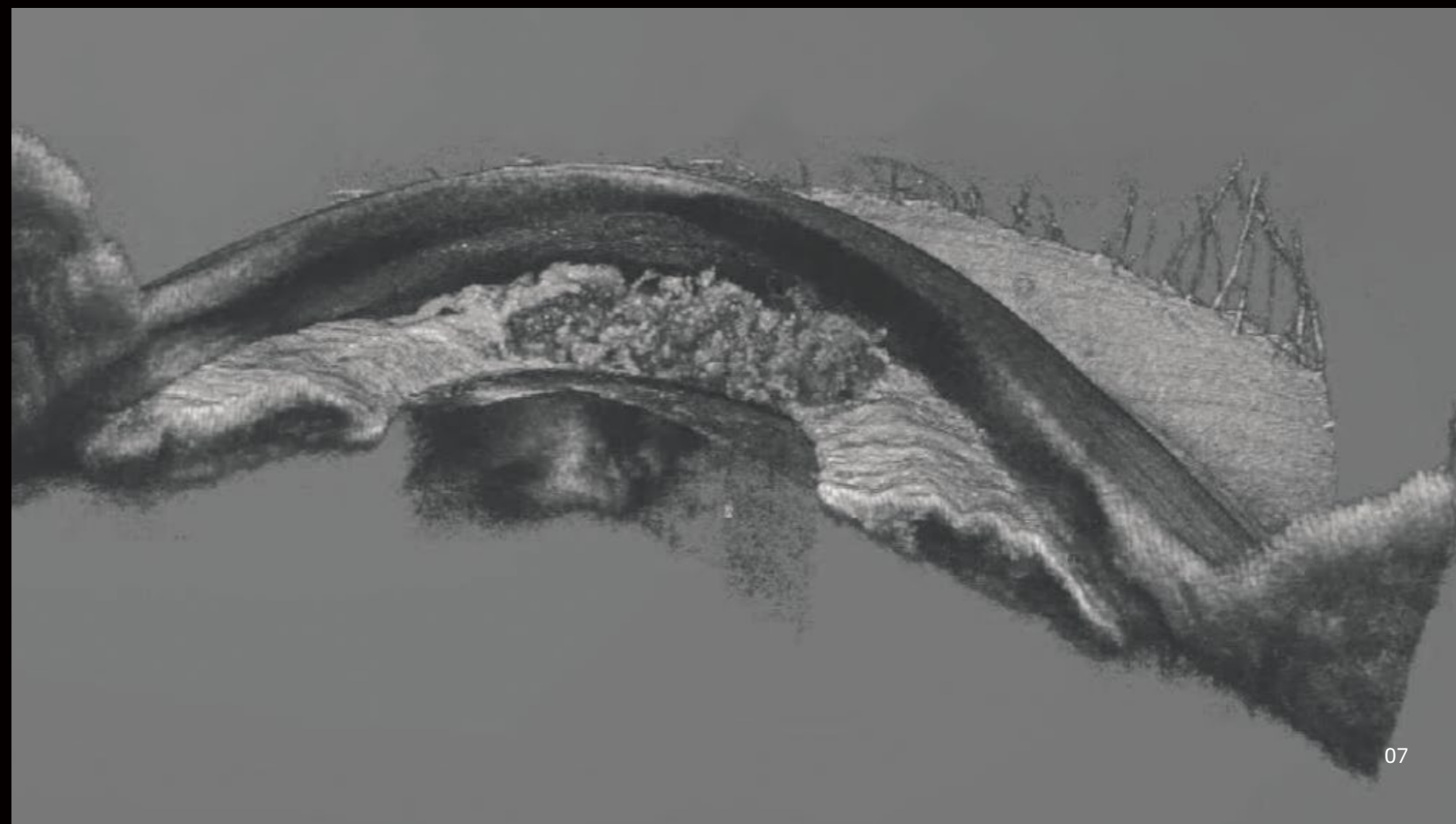


SLO fundus image | Vitreomacular traction (VMT) (same patient with left)

AS OCTA | Corneal neovascularization

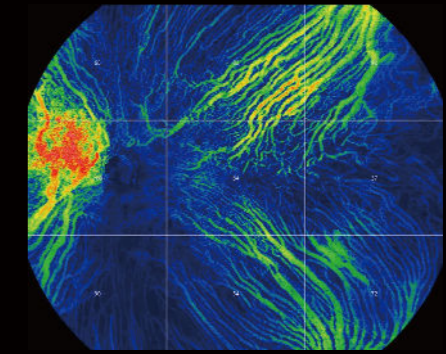
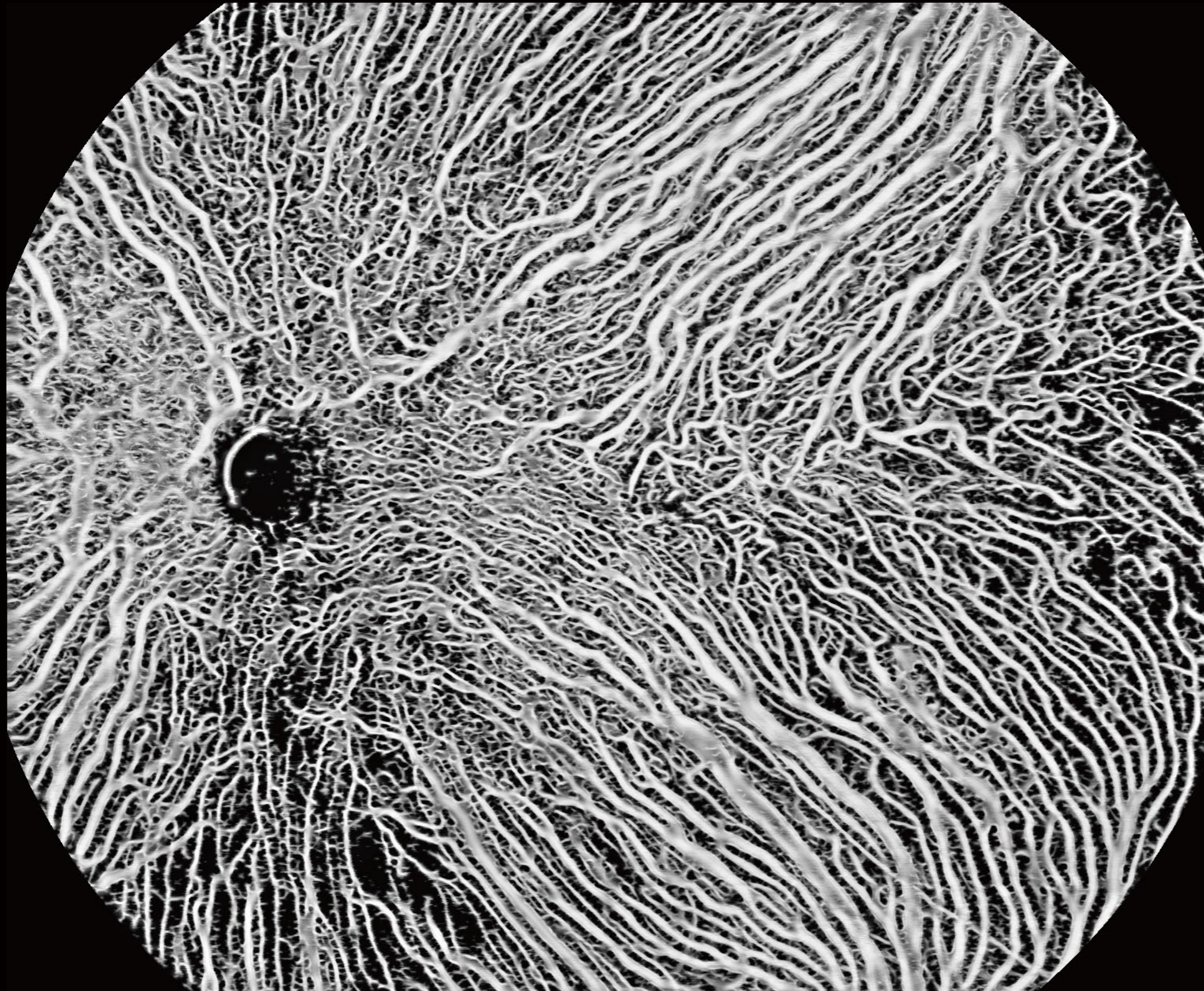


AS 3D reconstruction | Iridoschisis

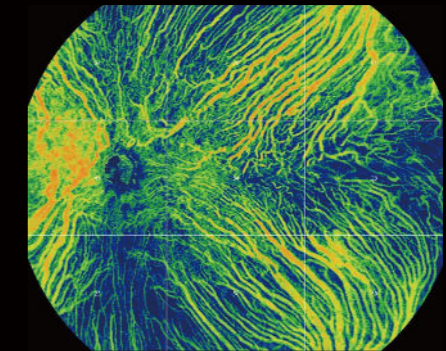


# Reveal the Undiscovered

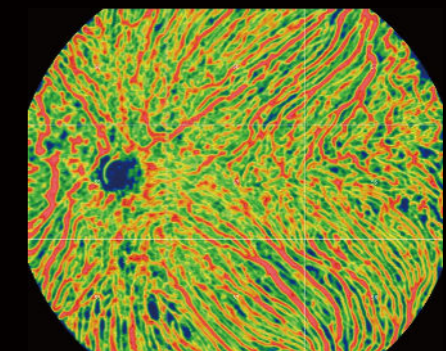
Ultra-wide field OCTA for Choroid with quantification parameters



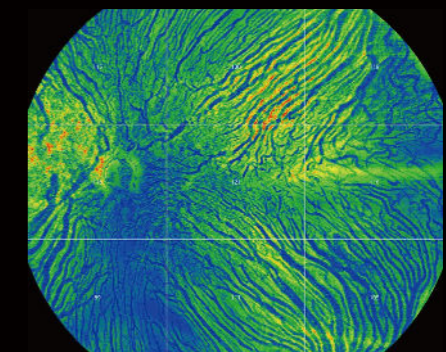
Choroid Vessel Volume ratio (CVV/a)



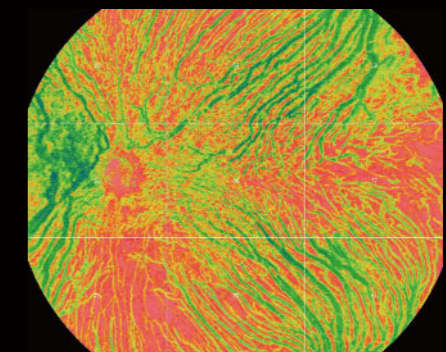
Choroid Vessel Index (3D-CVI)



Choroid Vessel Density (2D)



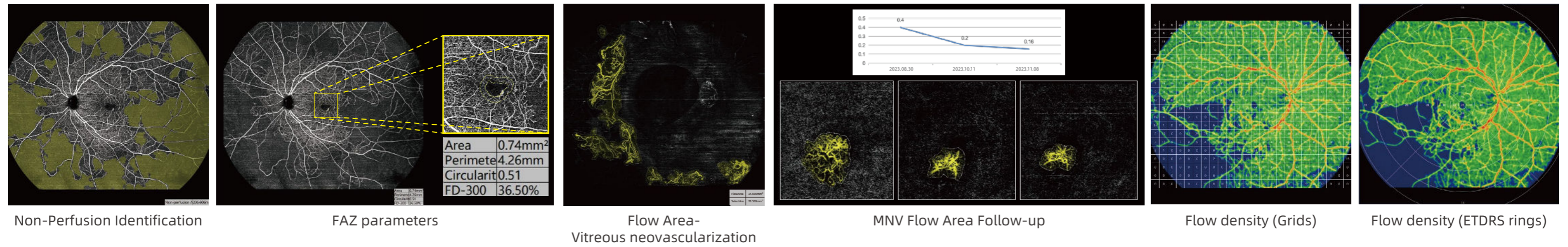
Choroidal Stroma Volume ratio (CSV/a)



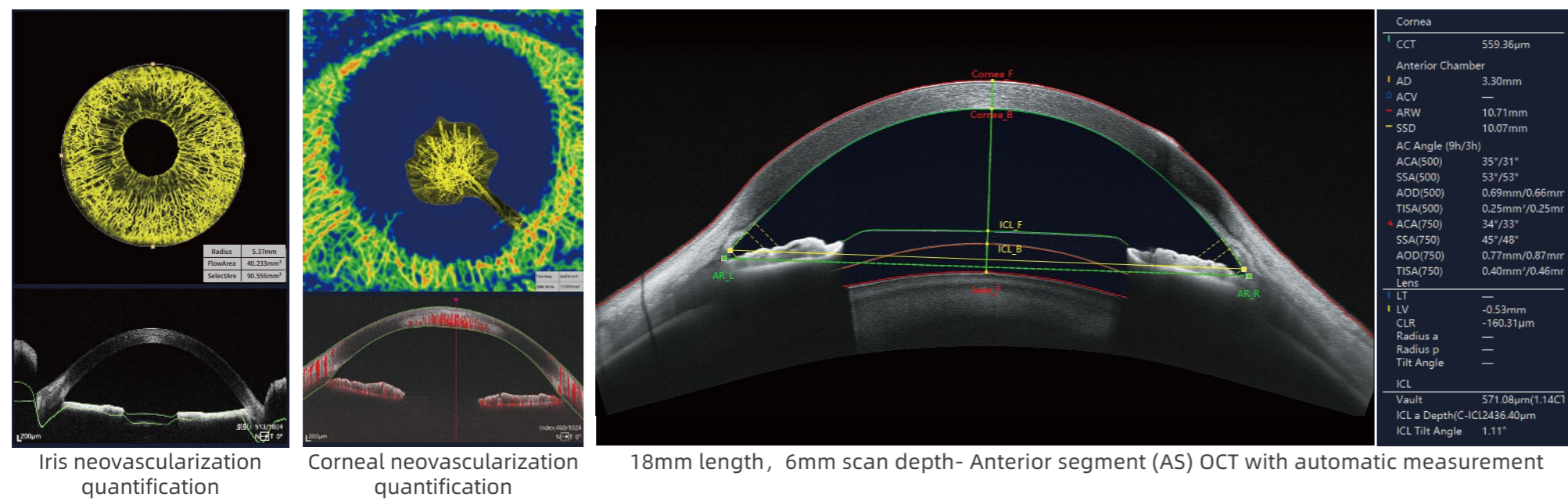
Choroidal Stroma Index (CSI)

# Comprehensive Quantitative Analysis

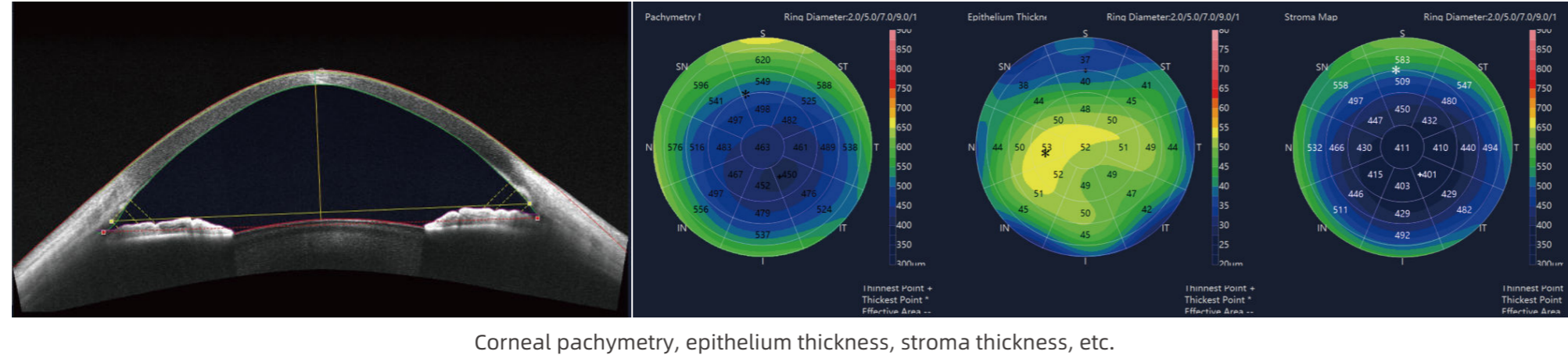
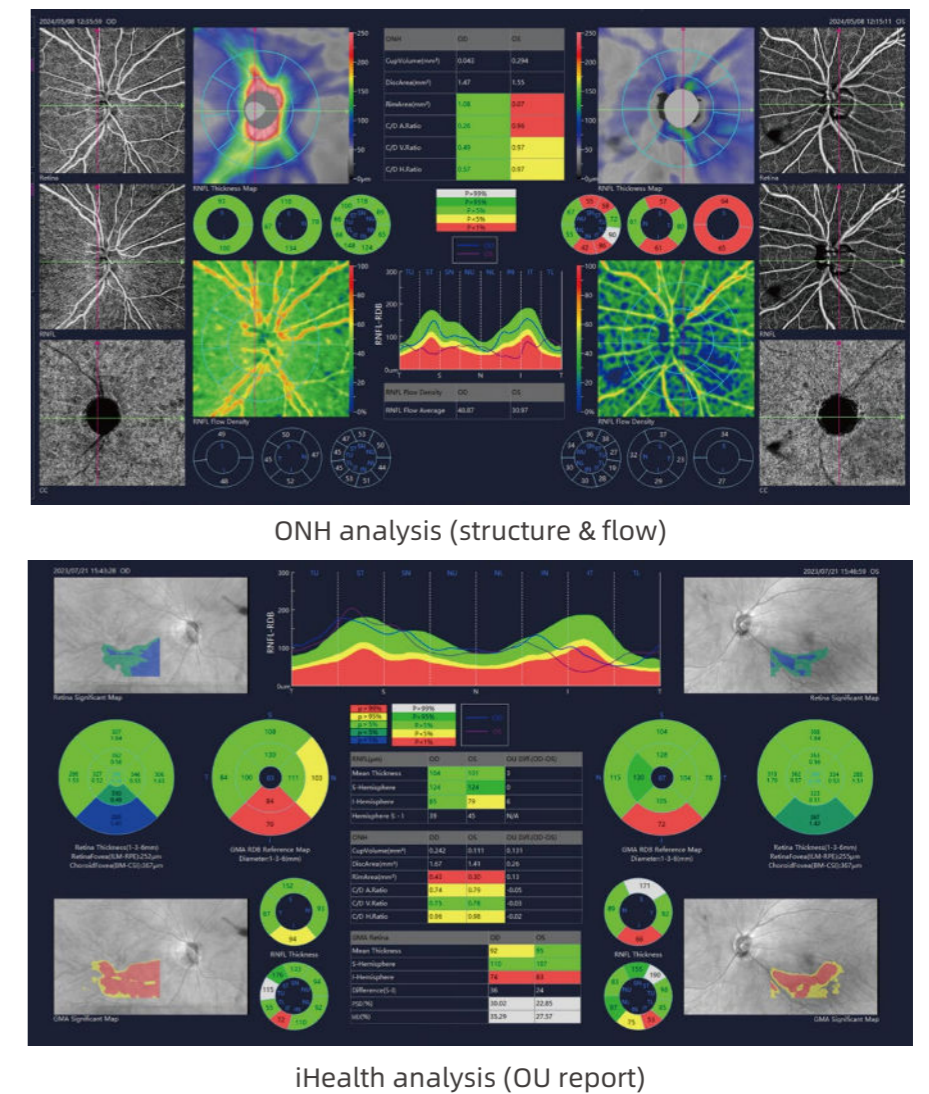
## Retinal blood flow with quantification



## AS OCTA with quantization and parameters



## Comprehensive glaucoma analysis

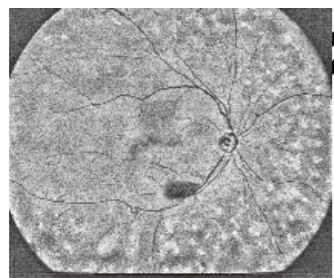


# Innovation.

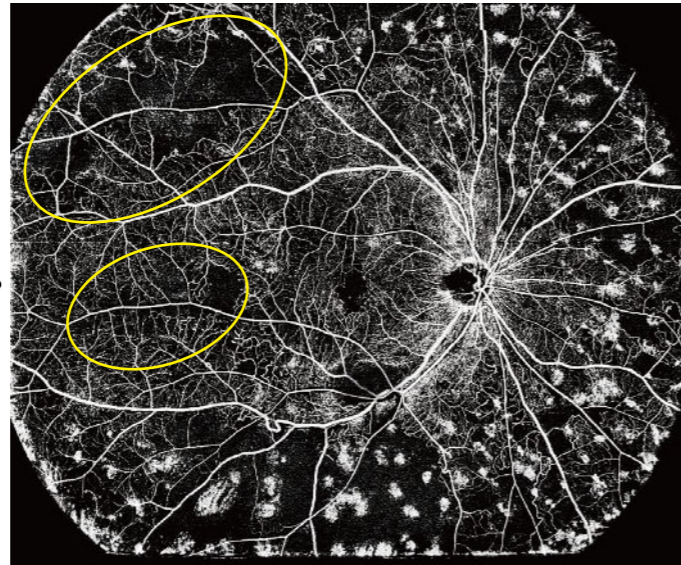
## iSpot

Precision and convenient OCTA-guided photocoagulation.

Superficial retina OCTA image detects NPA



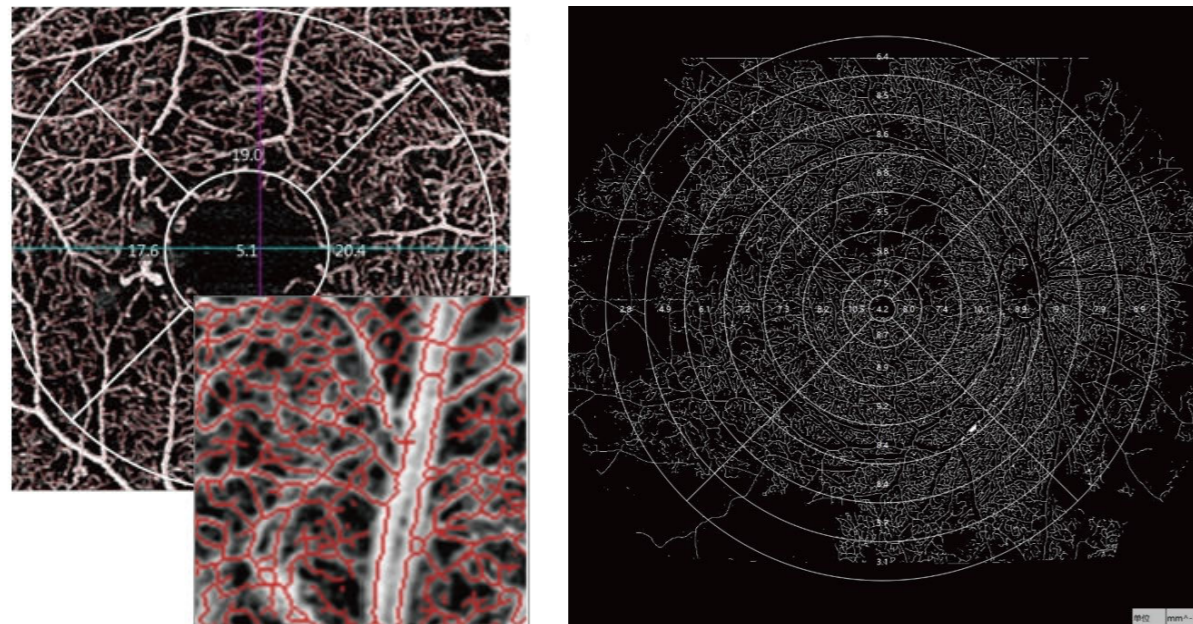
En face image of outer retina shows laser spots



Non-perfusion areas with insufficient laser are clearly identified

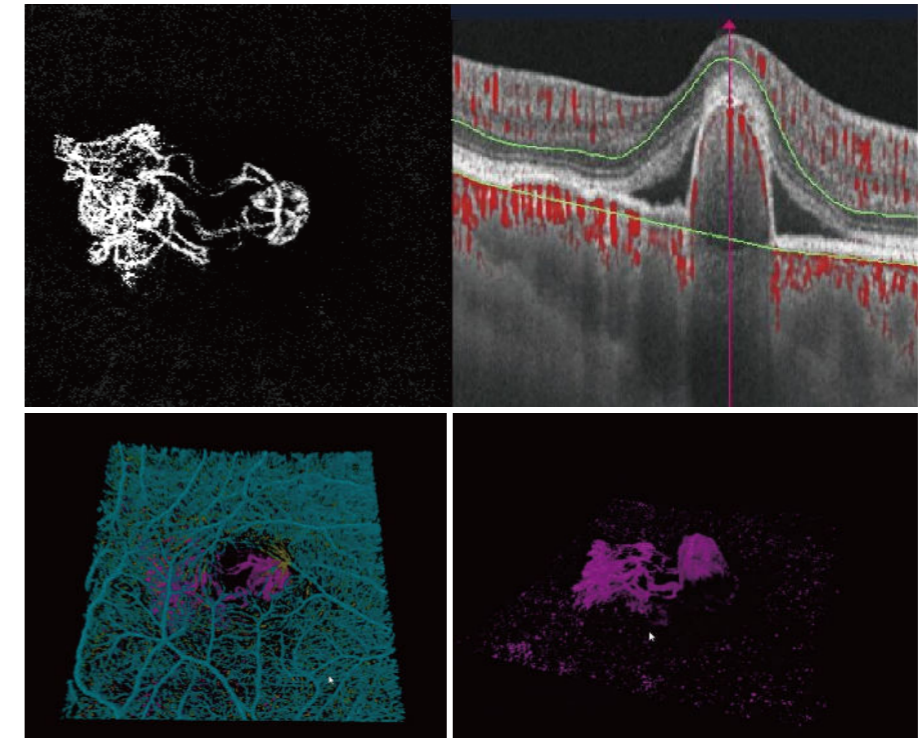
## Vessel Skeleton Density (VSD)

The ratio of the linear length in the region to the area of the region ( $\text{mm}^{-1}$ ) after the vessels are skeletonized. More sensitive to changes in the vessels number and less affected by vessel diameter.



## 3D OCTA

Visualization vessels in 3D reconstruction for customized layers.



## Retinal Morphology Trio

Restore the true shape of retina with built-in advanced algorithm based on 3D structure.

