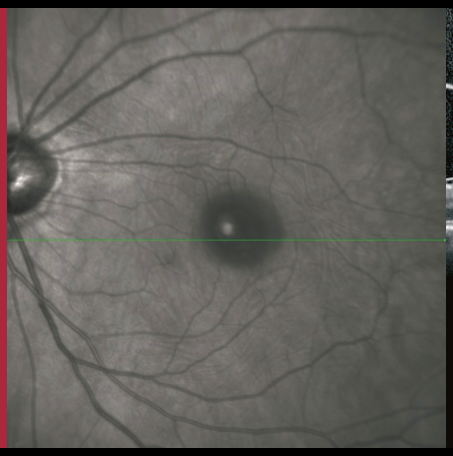
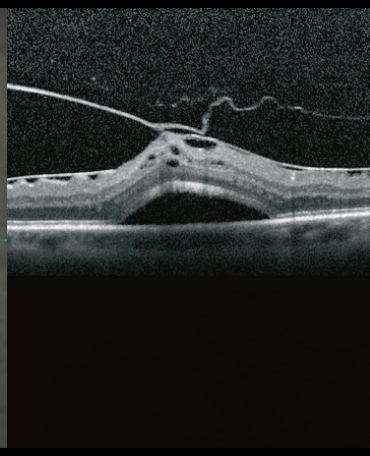
Searching for Clues
on OCT Images

SPECTRALIS®

Basics of OCT Image Interpretation



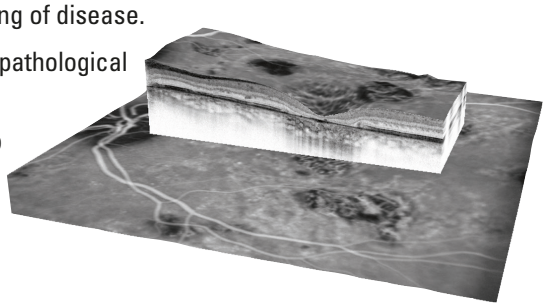


HEIDELBERG ENGINEERING ACADEMY

This brochure is not intended as a diagnostic guide and is not a substitute for clinical experience and judgment. When diagnosing and treating patients, each clinician must analyze and interpret all available data and make individual clinical decisions based on his or her clinical judgment and experience. The diagnosis is the responsibility of the physician.

Reading the Clues on a SPECTRALIS OCT Image

SPECTRALIS spectral domain optical coherence tomography (SD-OCT) is a fast, non-invasive method of examining the posterior section of the eye. In addition to its optimal imaging technique that aids in diagnosis, it also offers a unique AutoRescan function which allows for reproducible measurements necessary for optimal monitoring of disease.



The qualitative evaluation of OCT images makes it possible to accurately assign pathological changes to the individual layers of the retina.

This guide will help you to both systematically evaluate OCT images and to describe clinical observations visualized by such images in a straight forward and efficient manner.

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Things to Know Before You Start

Color Schemes

It is possible to view OCT images with different color schemes. For clinical use, black-on-white (Fig. 1) and white-on-black (Fig. 2) are most common. Changing the color scheme does not change the information included in the image. However, it is sometimes helpful to reverse the contrast to highlight areas of interest.

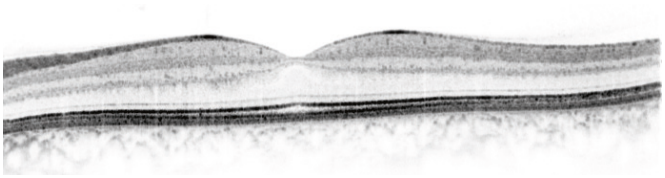


Fig. 1: OCT image on a white background (“hyperreflective” = black, “hyporeflective” = white)

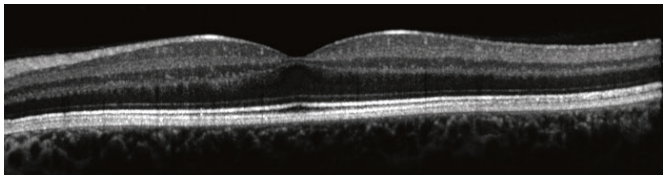


Fig. 2: OCT image on a black background (“hyperreflective” = white, “hyporeflective” = black)

Scan Pattern

Two high-resolution central OCT images of the fovea should be documented for every eye with perifoveal abnormalities. These should have a horizontal and vertical orientation and should intersect the fovea. Furthermore, a volume scan should be adjusted in terms of size/density and placed over the area of interest as indicated on the fundus image (Fig. 3-6).

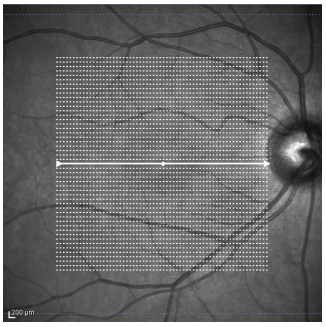


Fig. 3: Dense Scan

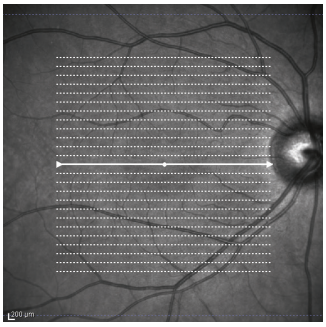


Fig. 4: Fast Scan

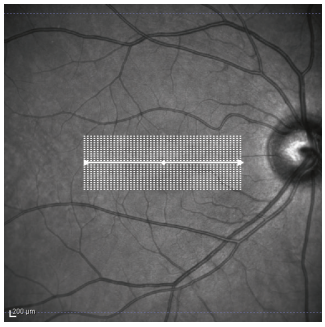


Fig. 5: Detail Scan

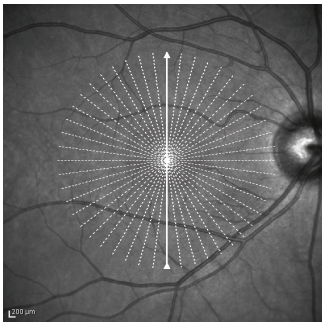


Fig. 6: Radial Scan

Quality Check

Every single OCT image of the volume scan should be observed and analyzed. If the thickness map is of interest, the automatic segmentation of each OCT section image should be reviewed to ensure no errors were made (Fig. 7-8).

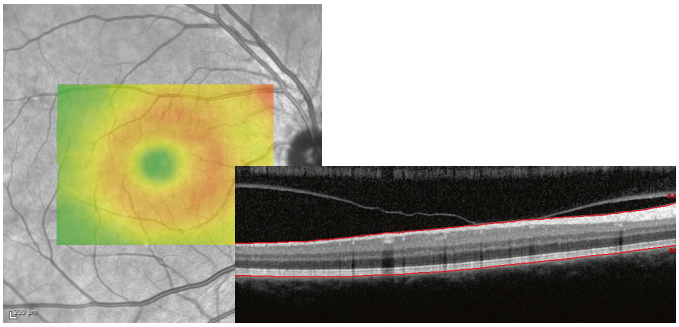


Fig. 7: Segmentation successful

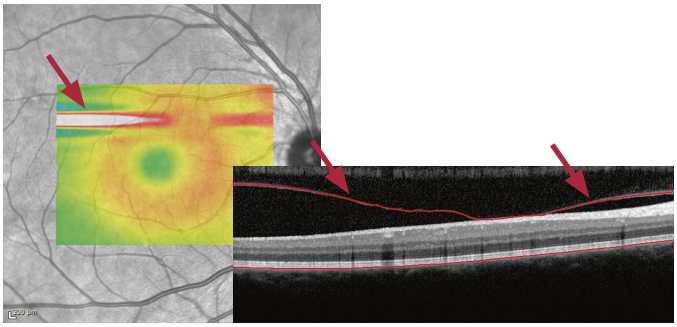


Fig. 8: Segmentation failed

The Role of the Fundus Image

Every OCT image is associated with a reference fundus image: By simultaneously displaying the fundus image and OCT image, it is possible to precisely correlate clinically abnormal areas to the corresponding finding on the OCT image (Fig. 9).

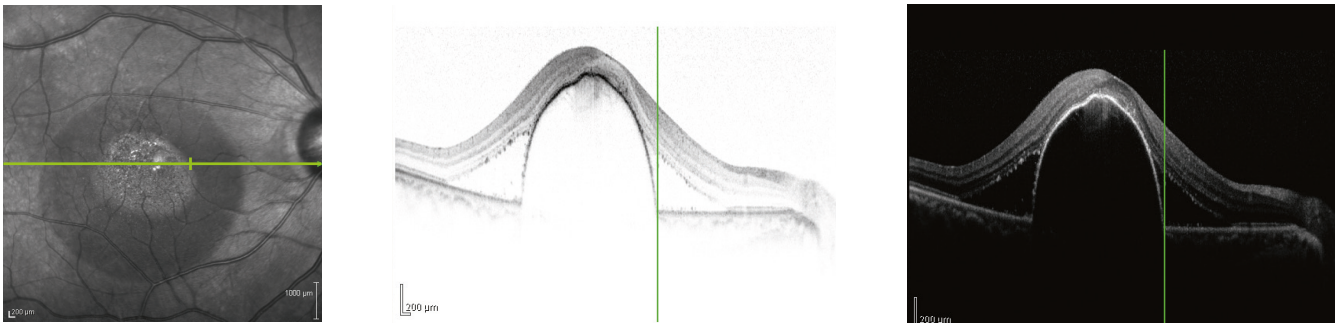
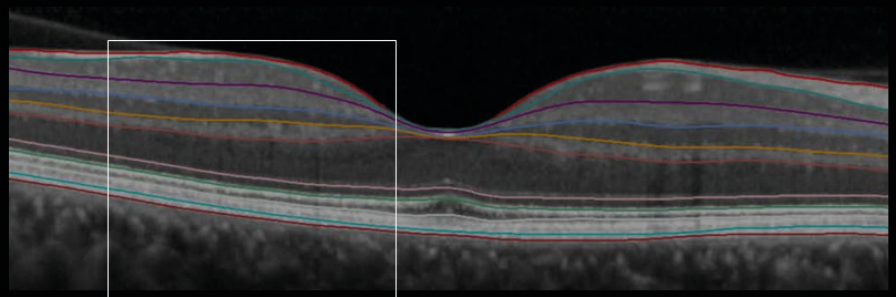
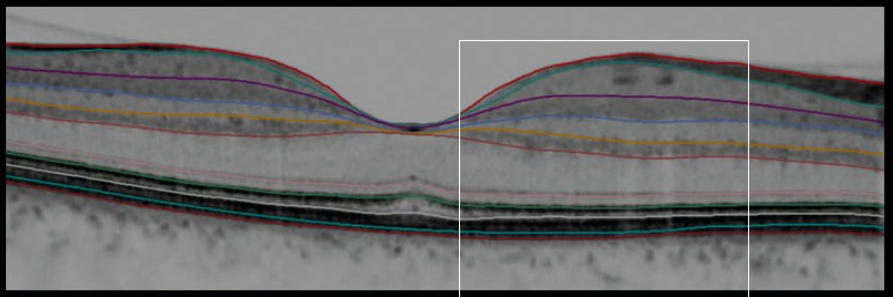
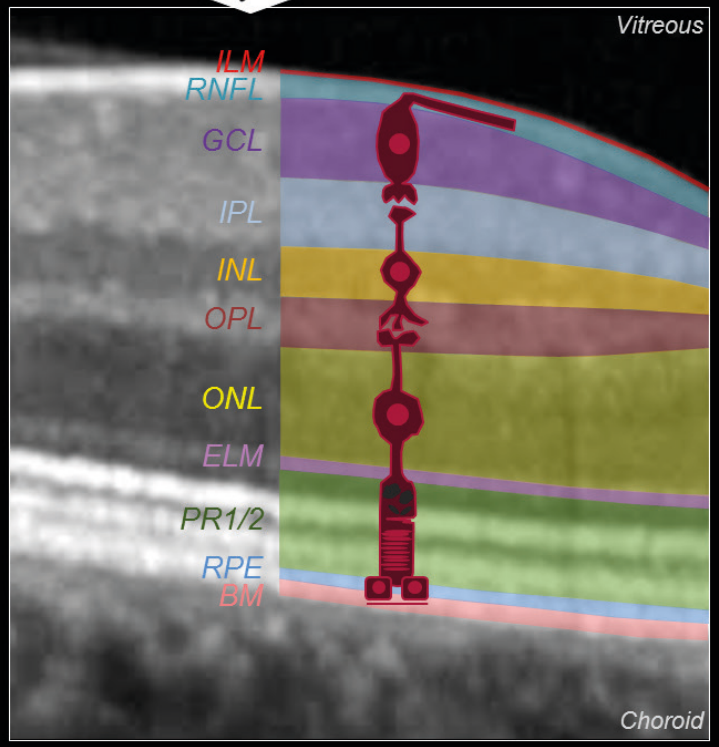


Fig. 9: Correlating the changes visible on the IR image with the OCT image

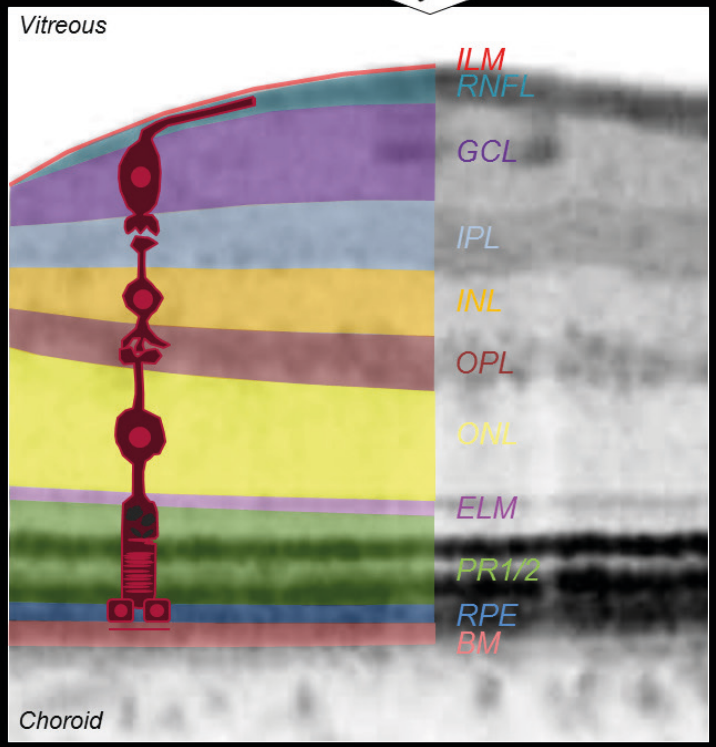
Retinal Layers







Retinal Layers	
Abbr.	**Name**
ILM	Internal Limiting Membrane
RNFL	Retinal Nerve Fiber Layer
GCL	Ganglion Cell Layer
IPL	Inner Plexiform Layer
INL	Inner Nuclear Layer
OPL	Outer Plexiform Layer
ONL	Outer Nuclear Layer
ELM	External Limiting Membrane
PR1/2	Photoreceptor Layers
RPE	Retinal Pigment Epithelium
BM	Bruch's Membrane



Systematic Procedure for OCT Image Interpretation in 60 sec

Check the OCT Image from the Inner to the Outer Retinal Layers

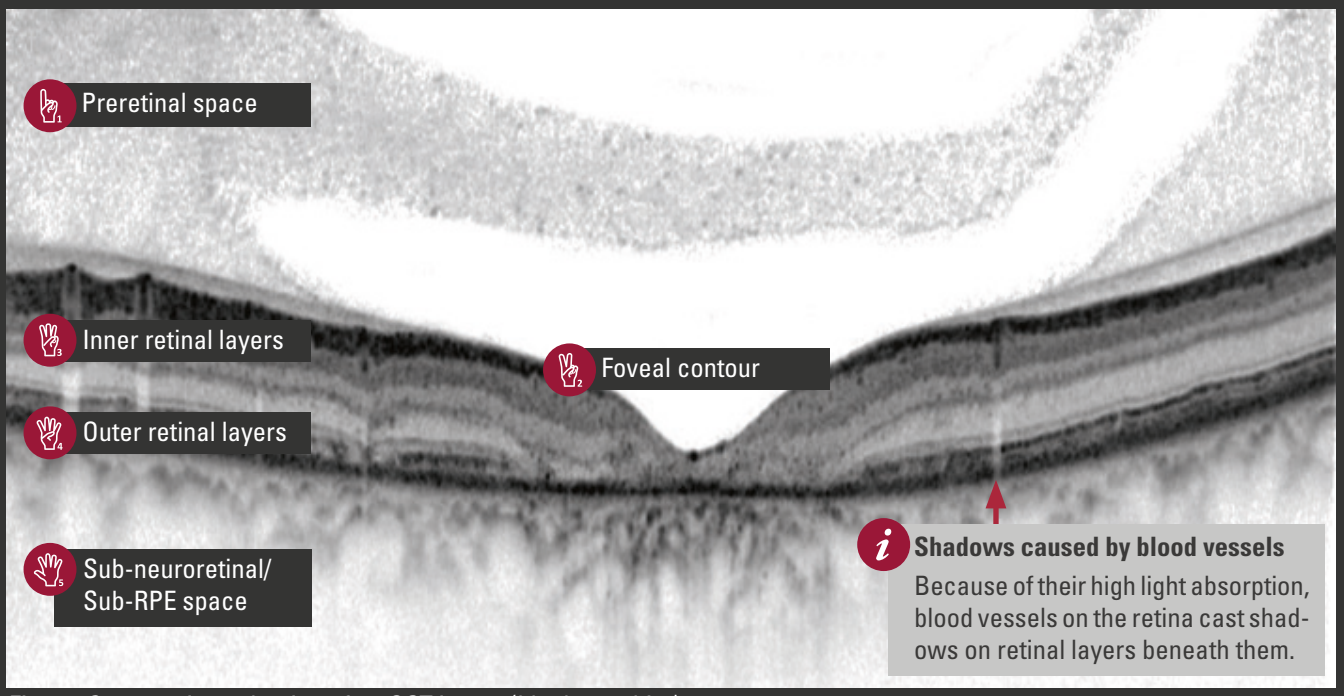


Fig. 10: Systematic evaluation of an OCT image (black on white)

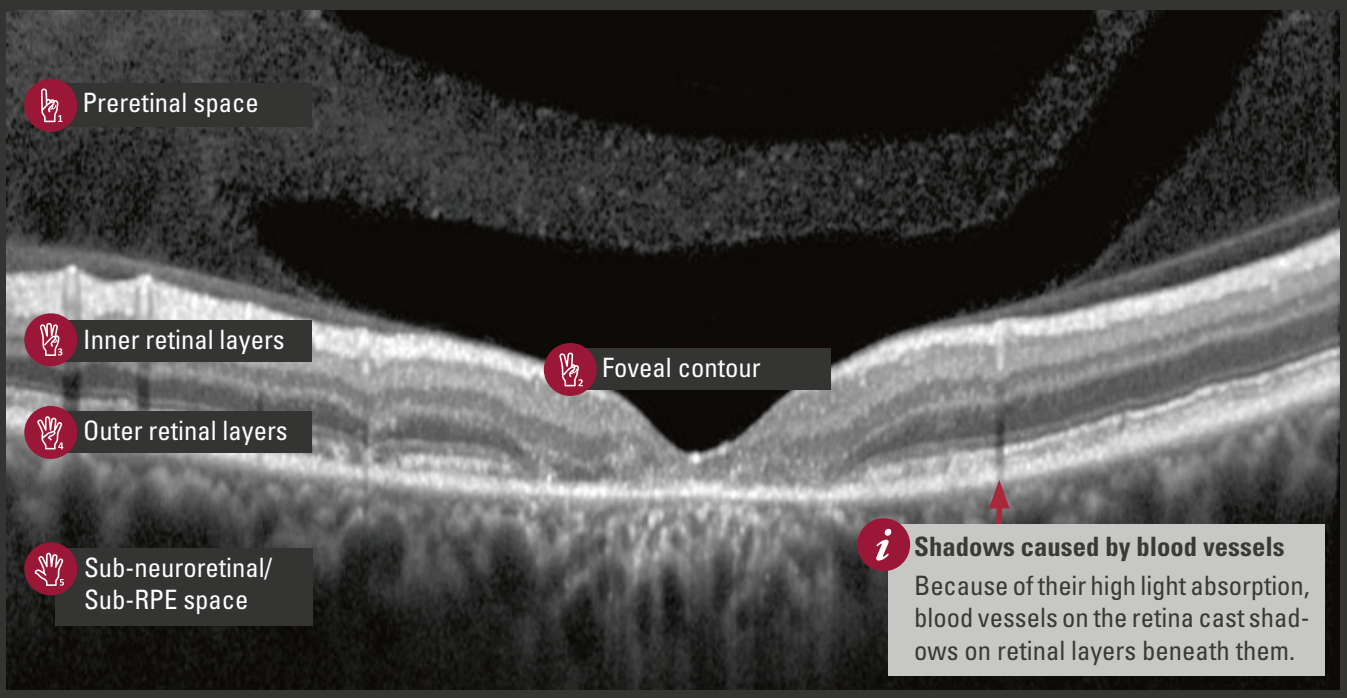


Fig. 11: Systematic evaluation of an OCT image (white on black)

It is strongly recommended to check the entire OCT image since structures in inner areas can change the reflectivity of the outer layers which may lead to an incorrect diagnosis.

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1 Changes in the Preretinal Space

Shadows appearing on the OCT image that are not caused by a hemorrhage or an exudate may originate from the vitreous body. Vitreous opacities appear as reflective spots in the OCT image. The use of 3D imaging especially helps to identify a correlation between abnormalities in the vitreous body and the OCT image, e.g. in case of floaters (Fig. 12). In the "3D view" tab the vitreous option needs to be selected (Fig. 13).

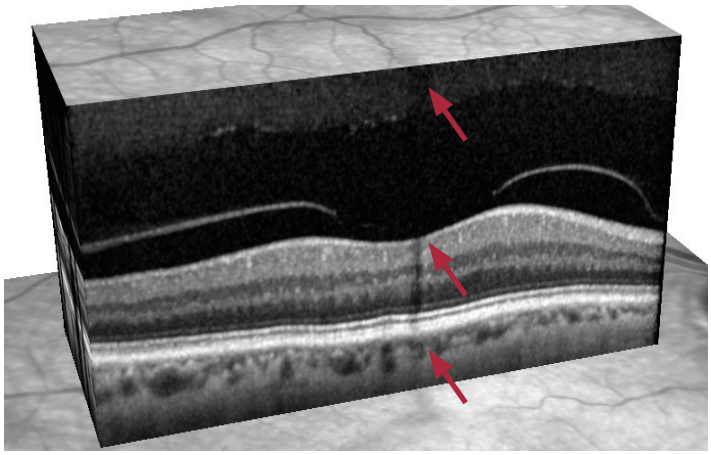

Fig. 12: 3D view of the structure of the vitreous body

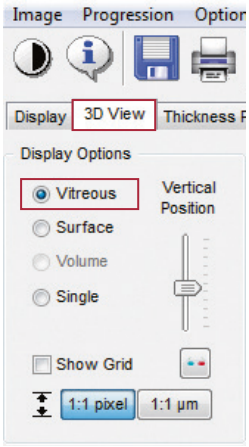

Fig. 13: Selecting "Vitreous" in the 3D view

Fig. 14 shows a shadowing in the retinal OCT image (highlighted with red arrows) caused by vitreous hemorrhages due to neovascularization of the optic disc (NVD).

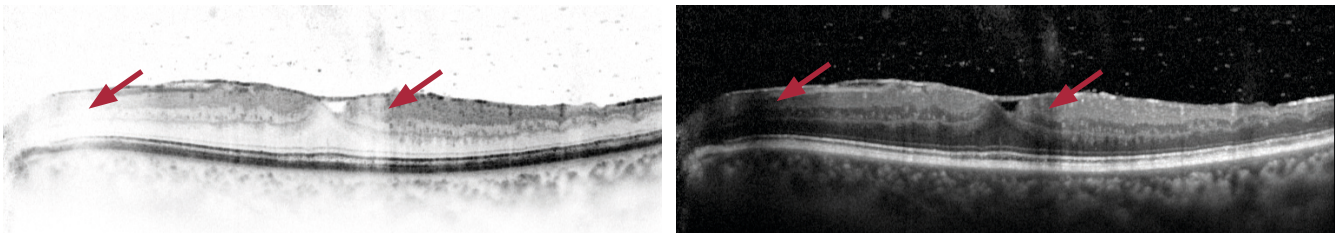

Fig. 14: Shadowing effect caused by vitreous hemorrhages

2 Changes in the Foveal Configuration

The OCT image through the fovea shows the characteristic depression known as the foveal pit, with the inner retinal layers absent. The photoreceptor layer below the fovea physiologically forms a hump. Thus a slight elevation of the external limiting membrane and the outer segment can be identified (Fig. 15).

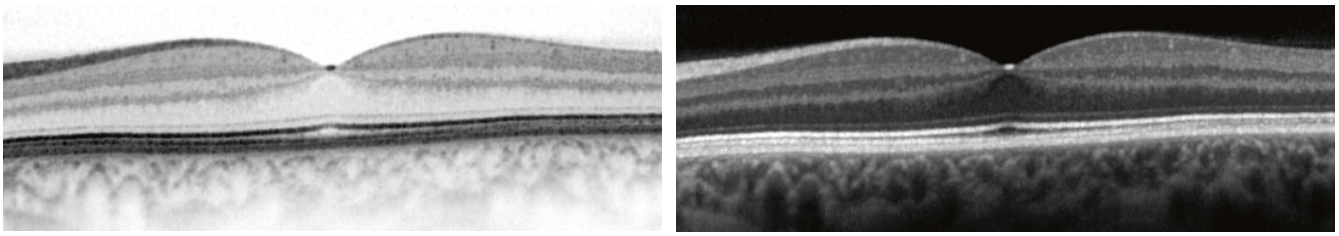

Fig. 15: Normal fovea configuration

To evaluate the configuration of the fovea, make sure that the OCT section is correctly placed on the fovea. If the foveal depression is not present (Fig. 16), the change in foveal configuration may be determined by measuring the thickness of the retina.

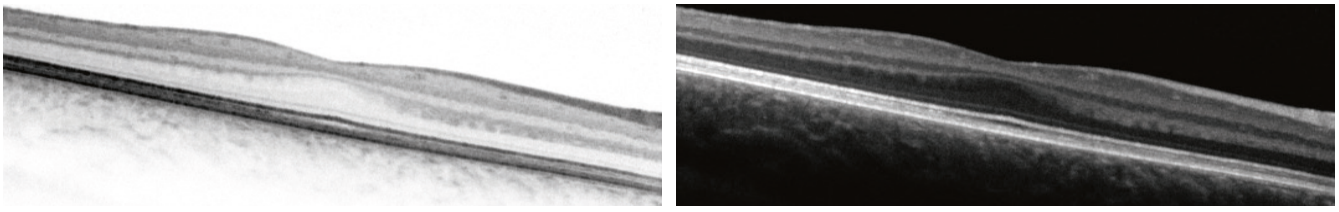

Fig. 16: Foveal dysplasia

The continuous, intact nature of the outer retinal layers, including the external limiting membrane, photoreceptors PR1/PR2 and pigment epithelium/Bruch's membrane complex, should be closely examined. The integrity of these structures is often an important indication of the patient's visual acuity and a good determinant of treatment outcomes.

3.1 Vitreoretinal Interface

In cases where the vitreous body is detached from the retina, the posterior hyaloid membrane may be visualized on the OCT image. It is depicted as a thin, highly reflective line anterior to the internal limiting membrane (Fig. 17-18).

In **partial vitreous detachment**, where the posterior hyaloid membrane still has its connection to the macula, two stages are differentiated: vitreomacular adhesion (VMA) and vitreomacular traction (VMT). In VMA the attachment of the posterior hyaloid membrane does not lead to intraretinal changes (Fig. 17). As soon as intraretinal changes (Fig. 18) – such as cysts, foramina or subretinal fluid – occur, the attachment is classified as VMT.

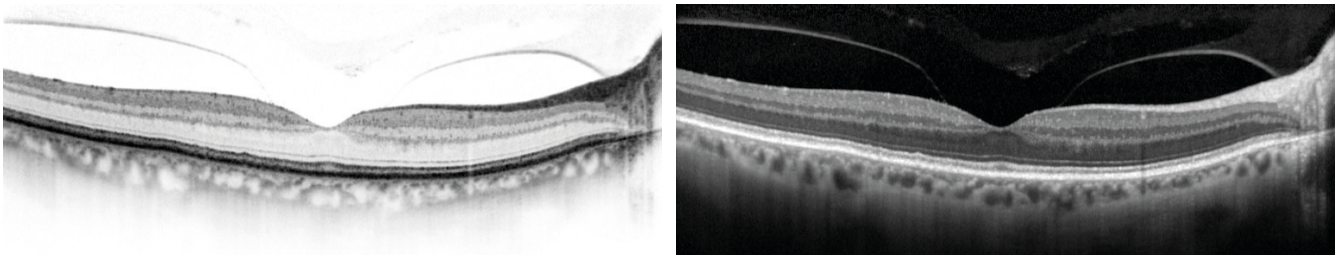

Fig. 17: VMA without intraretinal changes

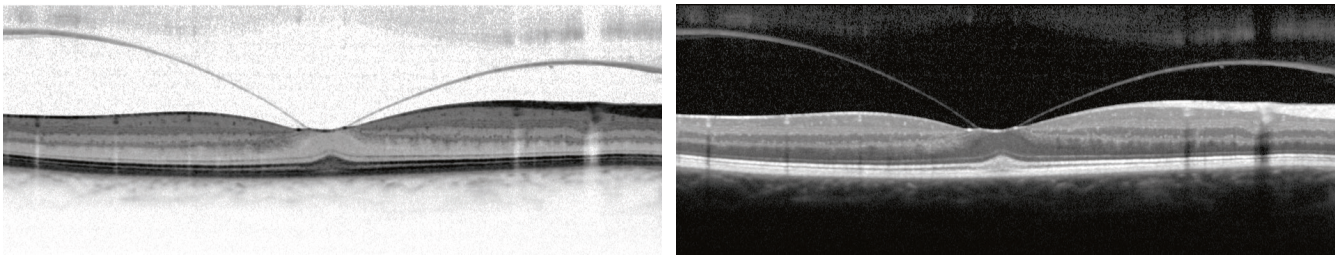

Fig. 18: VMT with intraretinal changes

Severe vitreous tractions can cause macular holes. OCT imaging enables the distinction between lamellar macular holes (LMH), full-thickness macular holes (FTMH) and macular pseudo holes (MPH). Fig. 19 shows a **lamellar macular hole** (LMH) with a partial foveal defect of the inner retinal layers. The foveal contour appears irregular. A LMH can be accompanied by an intraretinal splitting, typically between the OPL and ONL (Duker, Ophthalmology 2013, 120(12):2611-2619).

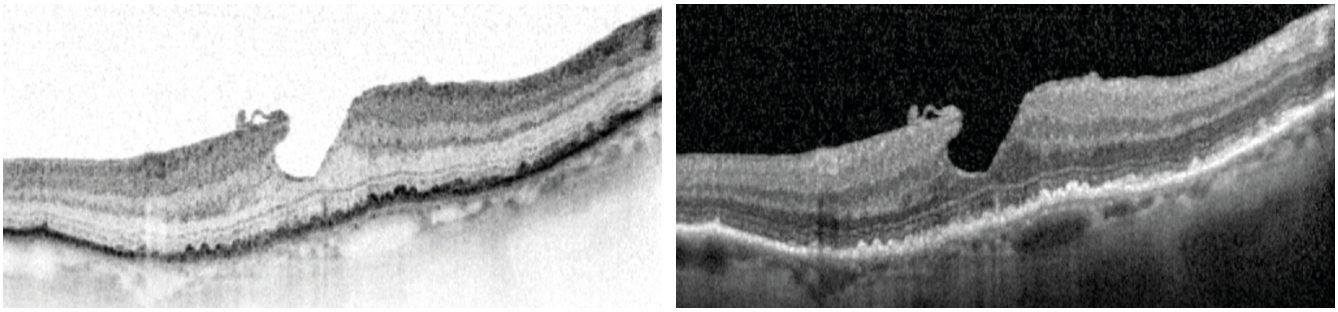

Fig. 19: LMH

Full-thickness macular holes (FTMH) are characterized by a complete interruption of all retinal layers from the ILM to the RPE as seen in Fig. 20. FTMHs are classified by size: small (≤250 µm), medium (>250 µm and ≤400 µm) and large (>400 µm).

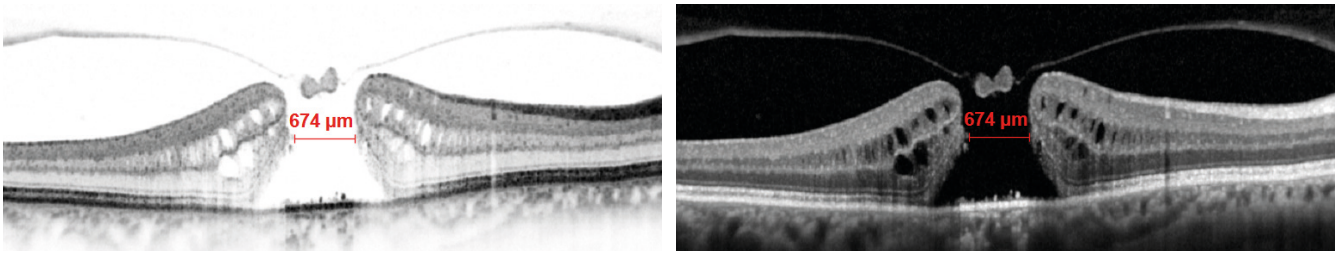

Fig. 20: FTMH (large)

Select the overlay tool <<*measure distance*>> and measure the horizontally narrowest width of the macular hole.

A number of pathogeneses (etiologies both in the metabolism of the vitreous body and the retina) can result in **tissue membranes** forming between the posterior hyaloid membrane and the internal limiting membrane. These membranes are depicted on OCT images as thickened, highly reflective lines (Fig. 21).

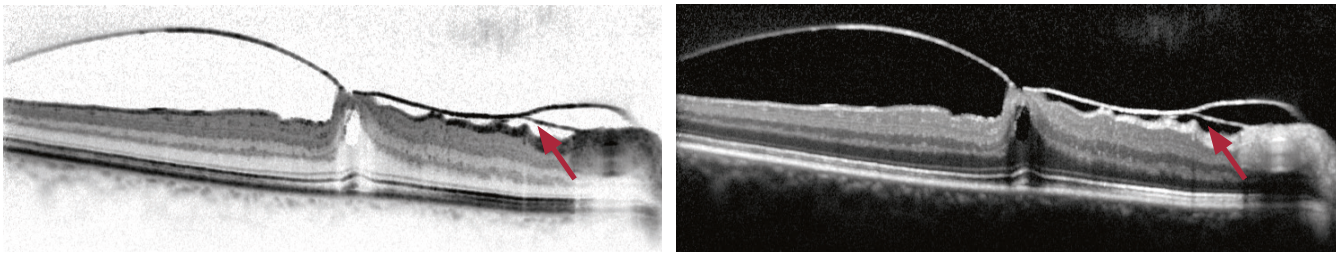

Fig. 21: Tissue membrane between the posterior hyaloid membrane and the internal limiting membrane

3.2 Internal Limiting Membrane (ILM)

Puckerings of the ILM are visualized on OCT images as irregular elevations along the layer, comparable to a panoramic view of a mountain range (Fig. 22).

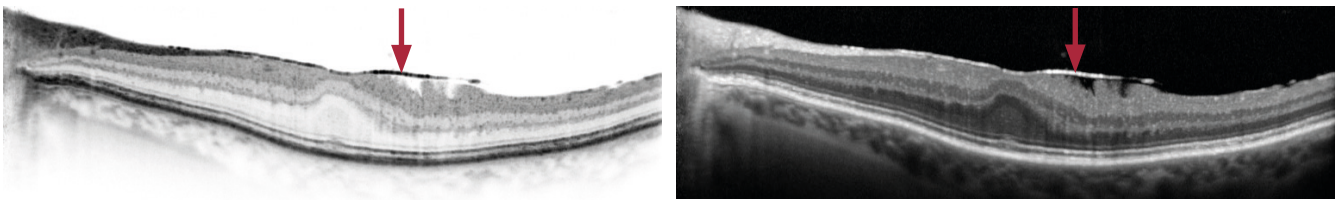

Fig. 22: Puckerings of the ILM

The extent of puckerings can be visualized on infrared reflectance (IR), blue reflectance (BR) or MultiColor images (Figs. 23-25).

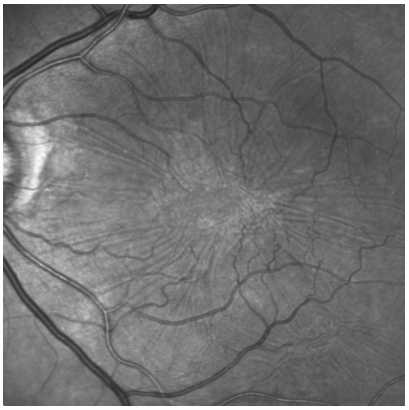

Fig. 23: Pucker on an IR image

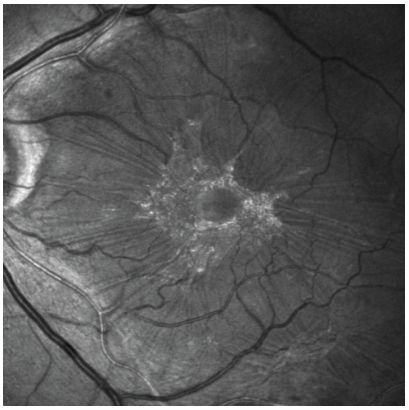

Fig. 24: Pucker on a BR image

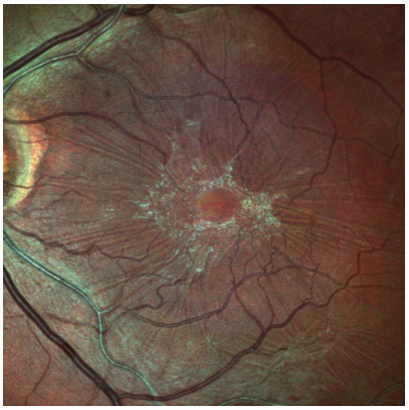

Fig. 25: Pucker on a MultiColor image

Macular pseudo holes (MPH) are subtypes of epiretinal membranes (ERM). While the ERM causes a thickening in the perifoveal area, the foveola itself is spared from the ERM and appears in a V-shape due to tractive properties of the ERM. The retinal layers do not show any structural loss (Fig. 26).

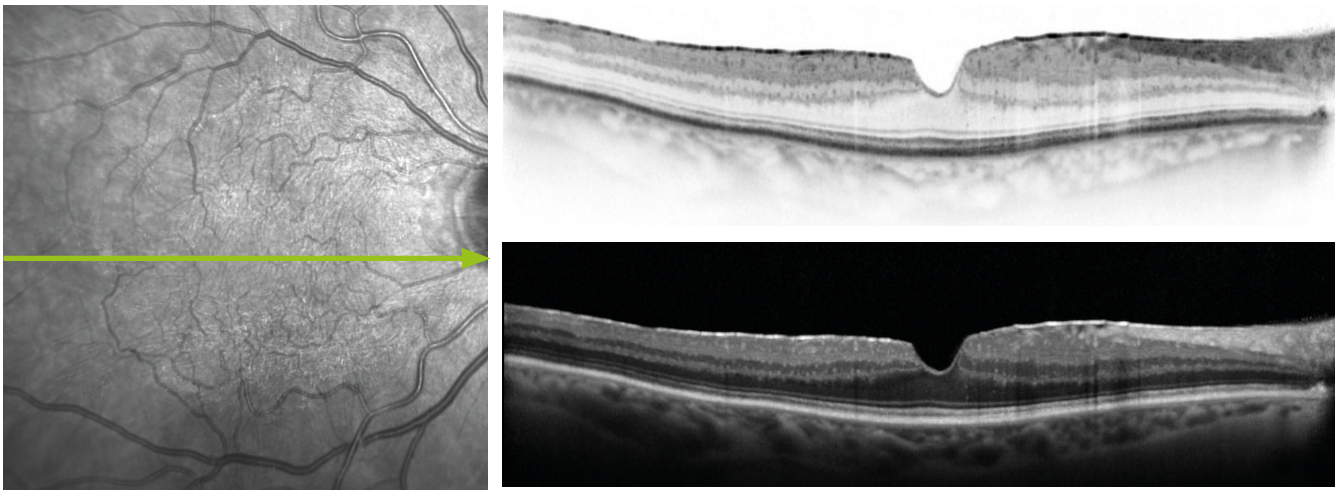

Fig. 26: Macular pseudo hole

3.3 Retinal Nerve Fiber Layer (RNFL)

The nerve fiber layer of healthy eyes is visualized on OCT images as a highly reflective layer that becomes increasingly thick as it approaches the optic disc (Fig. 27).

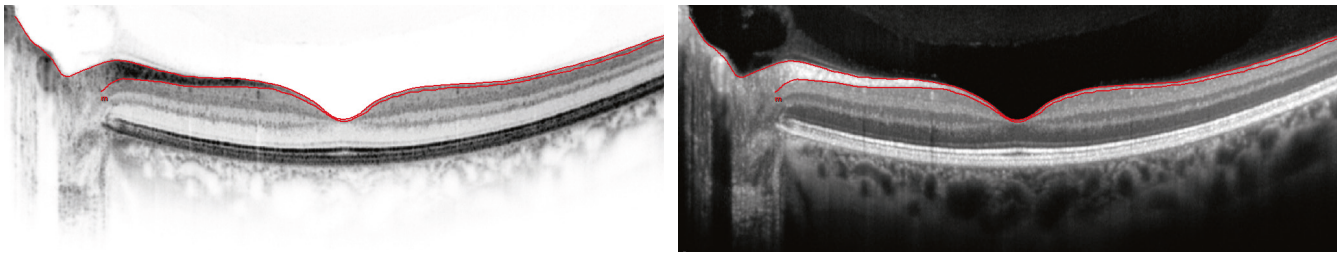

Fig. 27: Segmentation of the nerve fiber layer

3.3.1 Retinal Nerve Fiber Layer Thickness (RNFLT)

The thickness of the peripapillary nerve fiber layer plays an important role in differentiating healthy eyes from those that are glaucomatous. With the Glaucoma Module Premium Edition software, three peripapillary circular scans are acquired ("Glaucoma" application; "ONH-RC" scan pattern). After the acquisition, the RNFL of each circle scan is automatically segmented. The RNFLT determined at each point of the circular scan is compared with a reference database and analyzed according to Garway-Heath sectors as well as globally (Fig. 28). For people of European descent, the age-corrected reference database contains 218 eyes between the age of 20 and 87.

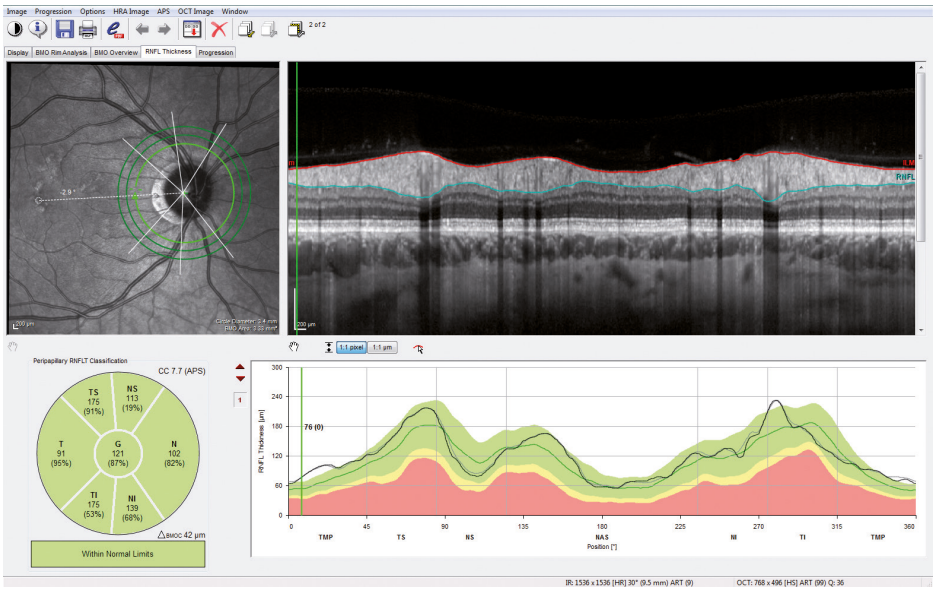

Fig. 28: Nerve fiber layer thickness analysis

3.3.2 Bruch's Membrane Opening-based Minimum Rim Width (BMO-MRW)

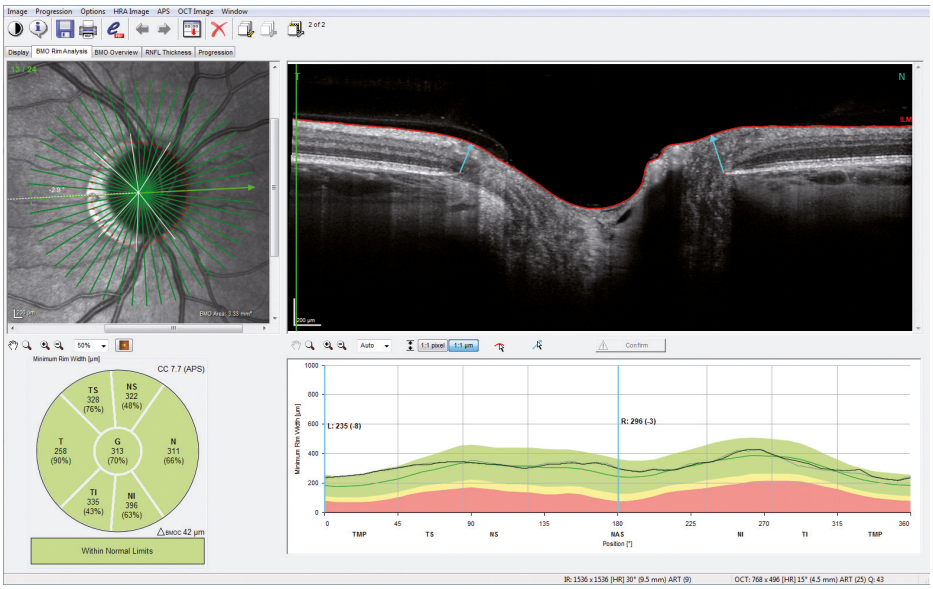

Fig. 29: BMO-MRW analysis

Furthermore, the ONH-RC scan provides the BMO-based minimum rim width (BMO-MRW), which quantifies the neuroretinal rim by measuring the shortest distance from the end of Bruch's membrane to the ILM. This method takes into account the variable geometry of the neural tissue as it exits the eye via the optic nerve head. The BMO-MRW is evaluated and compared with an age-corrected reference database (Fig. 29) that contains 246 eyes from persons of European descent between the age of 20 and 87.

Temporal inferior or temporal superior RNFL defects are typically indicative of glaucomatous changes. In other neurodegenerative diseases, such as Multiple Sclerosis (MS), RNFL defects primarily occur temporal or are evenly reduced, such as in the case of Neuromyelitis Optica (NMO) (Schneider et al., PLoS ONE. 2013, 8(6):e66151).

3.4 Ganglion Cell Layer (GCL)

In glaucoma patients, analysis of the ganglion cell layer around the macular region may help in diagnosis. In addition to being characterized by a loss of peripapillary retinal nerve fiber layer and neuroretinal rim tissue, glaucoma also involves the loss of retinal ganglion cells.

The Posterior Pole horizontal scan (PPoleH) can be used to evaluate the integrity of the macular ganglion cell layer with the help of a color-coded thickness map. Before having access to the thickness maps of the single retinal layers, the segmentation of the OCT image has to be calculated: Click with the right mouse button on the image thumbnail and select <<Segmentation>> <<All Layers>> from the context menu (Fig. 30).

Fig. 30: Segmentation of the single layers

In a healthy eye (Fig. 31), the macula is represented by a ring-shaped area of thickened ganglion cell layer. Interruptions (Fig. 32) in this area often indicate thinning and potential loss of the ganglion cells.

Healthy eye

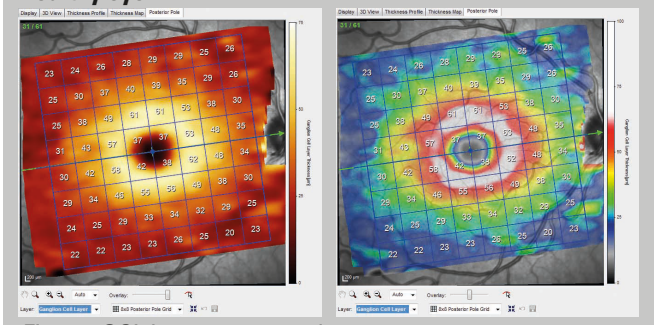

Fig. 31: GCL heat map vs. color map

Glaucomatous eye

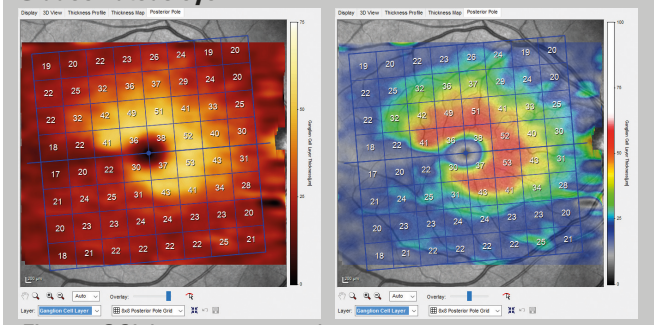

Fig. 32: GCL heat map vs. color map

Fig. 33 illustrates an example in which the ganglion cells above the raphe are intact while the ones beneath are seriously damaged. The discrepancy in the thickness of the ganglion cells in the lower and upper hemisphere can also be seen in the OCT image itself.

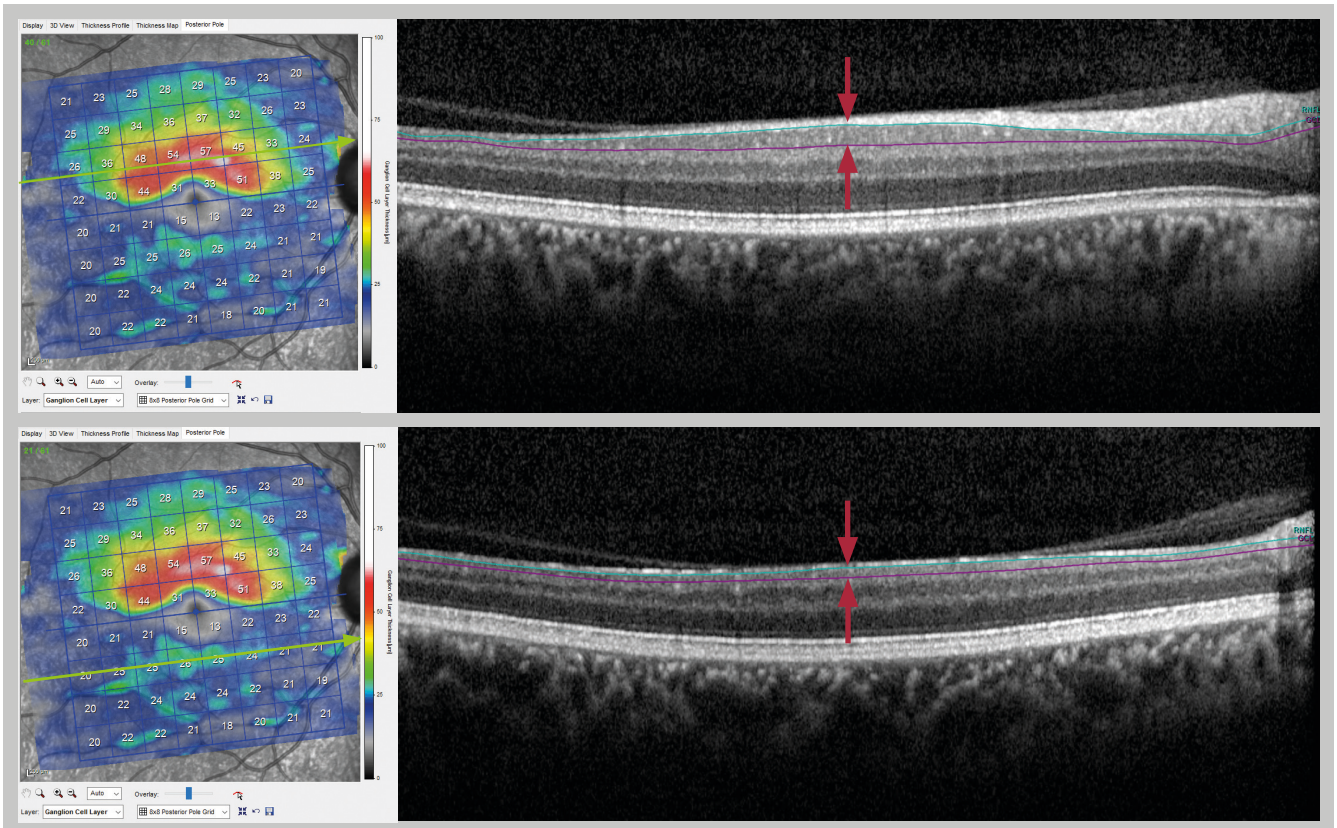

Fig. 33: GCL thinning beneath the raphe

3.5 Inner Nuclear Layer (INL)

The inner nuclear layer (INL) seems to be susceptible to cystoid fluid accumulations. Depending on the cause, areas of accumulated fluid can be found both foveal and perifoveal.

Fig. 34 shows a vertical OCT image of a **microcystic macular edema** (MME), which is common in neuro-inflammatory diseases associated with optic neuritis (Kaufhold, PLoS ONE 2013, 8(8): e71145). The hyporeflective areas seen in the IR image correspond to the dimension of the microcysts.

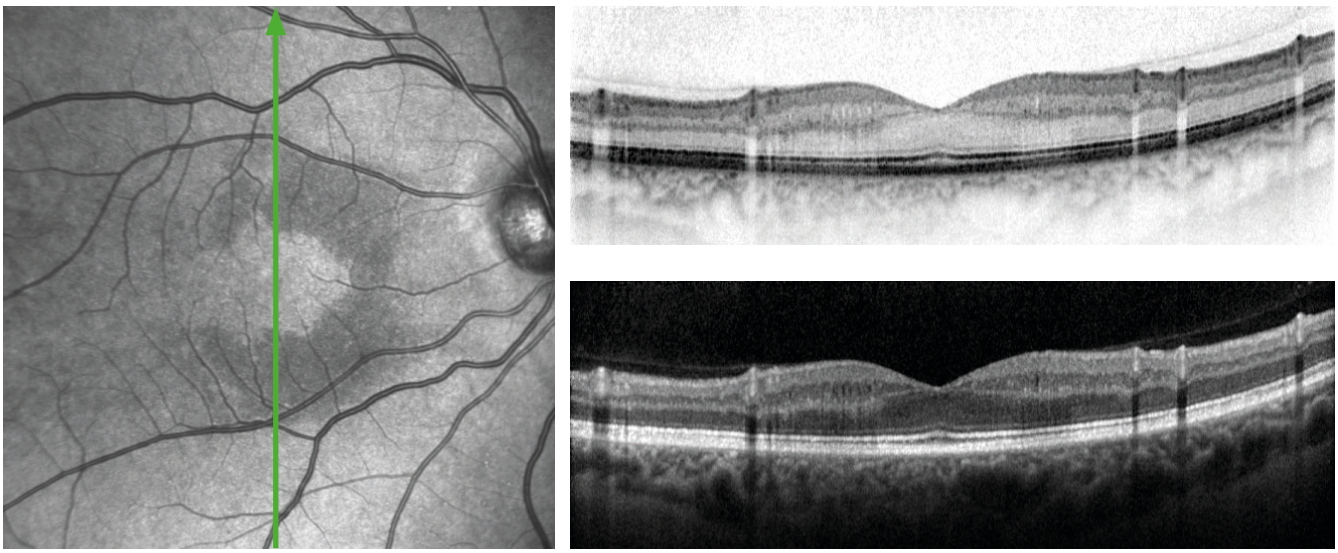

Fig. 34: MME in chronic relapsing inflammatory optic neuropathy (by courtesy of Neurodiagnostics Laboratory, Charité Berlin)

To avoid missing cystoid fluid accumulations, **every** individual OCT image within a volume scan should be analyzed. It is usually not sufficient to just look at the thickness map, as small cystoid cavities may be masked (Fig. 35). However, to accurately determine the retinal thickness, the retinal thickness map should be used.

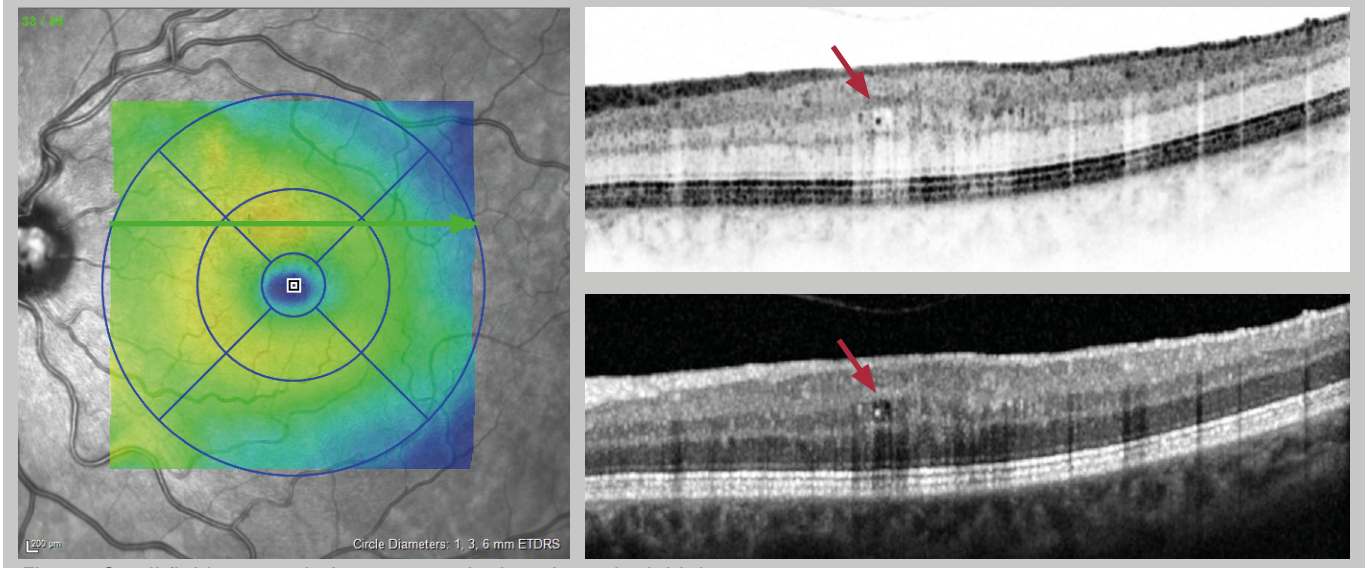

Fig. 35: Small fluid accumulations are masked on the retinal thickness map

Depending on the pathology, intraretinal fluid accumulation can be detected in different retinal layers. In **diabetic macular edema** (DME), cysts are commonly limited to the INL and anterior to Henle's fiber layer as seen in Fig. 36.

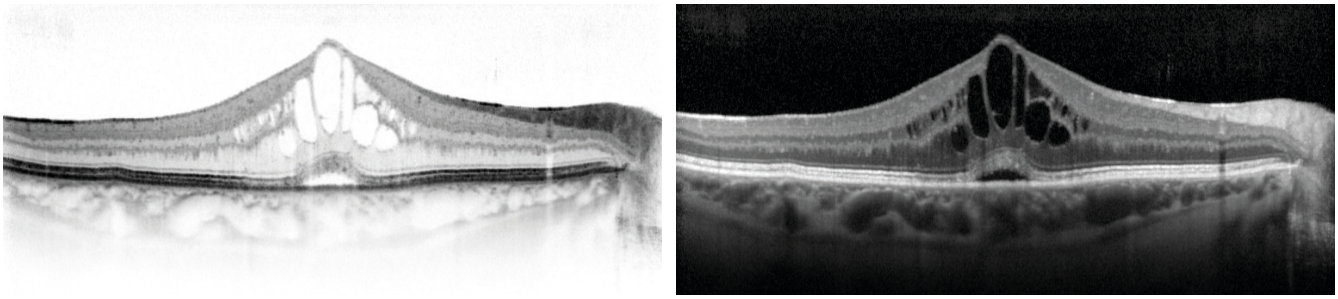

Fig. 36: Cysts in DME

3.6 Outer Plexiform Layer (OPL)

The OPL contains synaptic junctions between the photoreceptors and the bipolar cells. A splitting of the OPL occurs typically in **senile retinoschisis**. However, retinoschisis can also affect other neuroretinal layers.

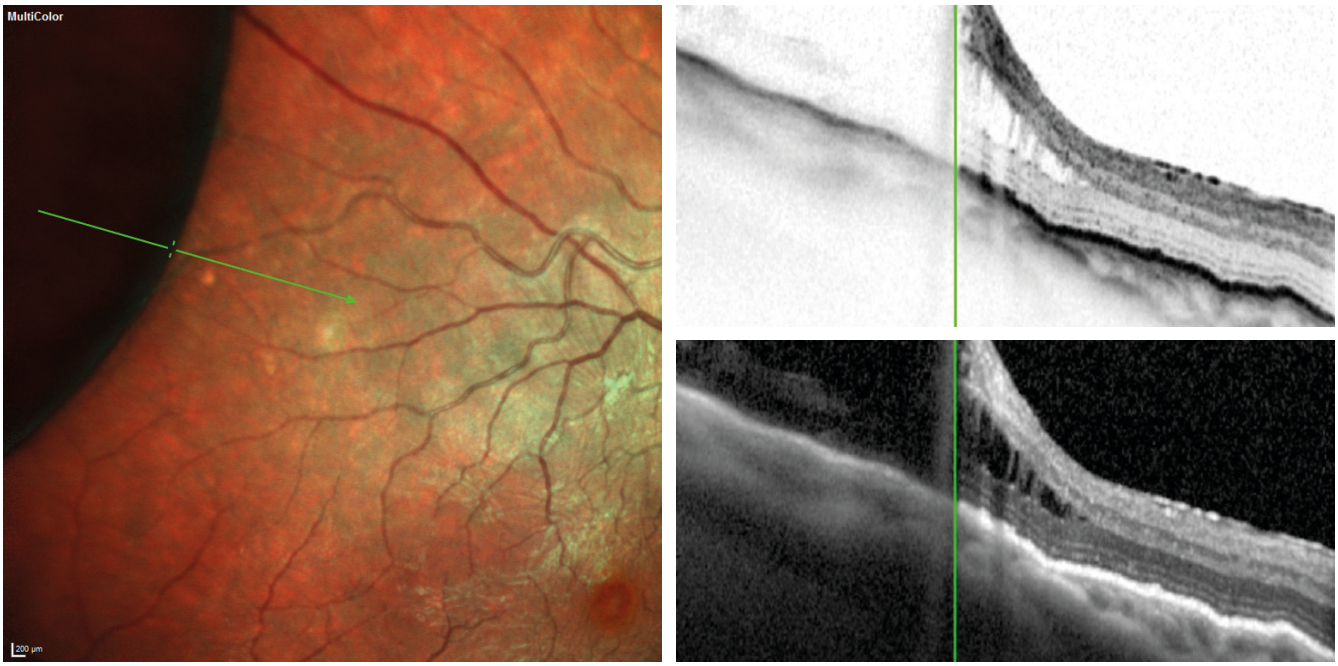

Fig. 37: Retinoschisis

Exudates are primarily seen within the outer plexiform layer of the OCT image, and they are usually depicted as hyperreflective clusters (Fig. 38). In comparison to hyperreflective dots, exudates can be seen in funduscopy.

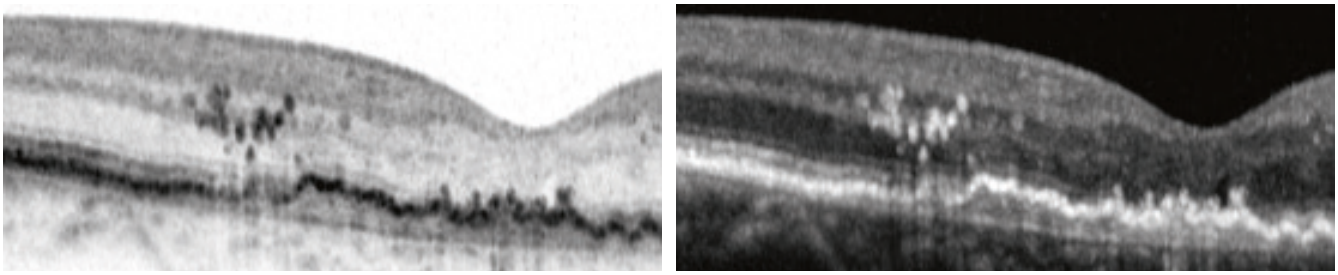

Fig. 38: Exudates visualized primarily in the outer plexiform layer

Hyperreflective dots found evenly scattered and spread among all layers may be indicative of pathologies other than hard exudate (Fig. 39). These hyperreflective dots have no relation to abnormal findings on IR images and may be representative of hard exudate precursors (Bolz, Ophthalmology 2009, 116:914-920).

In wet AMD, the hyperreflective dots can be seen at the onset and at later stages. The immediate response to treatment and the growing role of inflammatory processes in AMD suggest that the hyperreflective dots are activated microglia cells (Coscas, Ophthalmologica 2013, 229:32-37).

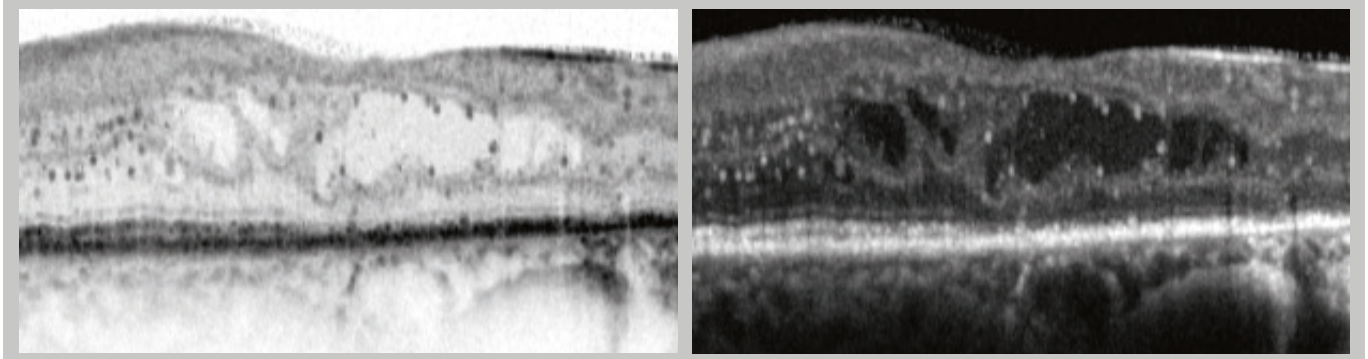

Fig. 39: Hyperreflective dots depicted in all layers of the retina

4.1 Integrity of the Outer Retinal Layers

The external limiting membrane (ELM), indicated with red arrows, forms the border between the inner and outer layers of the retina. The main criteria for evaluating the ELM and the bands posterior to it are their continuity and integrity.

The OCT band PR 1 (indicated with orange arrows) forms a small hump in the area of the fovea in healthy eyes.

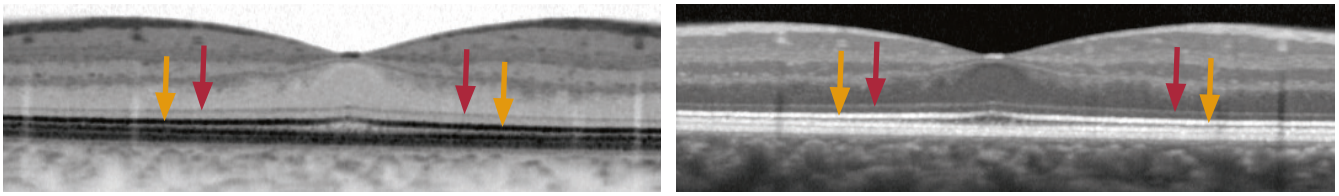

Fig. 40: Red arrows are pointing to ELM; orange arrows to PR1

To ensure full functionality, the OCT band PR1 must be present throughout. Loss of vision often correlates with an interruption of this OCT band. If the OCT band PR1 is completely absent, there is extensive loss of vision (Fig. 41).

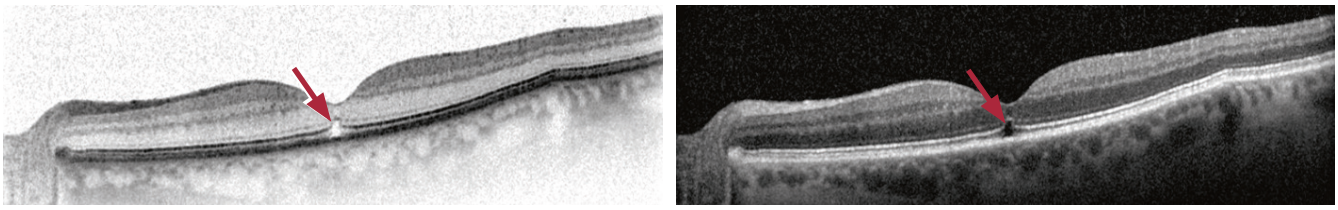

Fig. 41: Interruption of the OCT band PR1

When drusen develop, the OCT band PR1 is generally preserved without any interruptions. However, the OCT band PR1 might be dislocated as a result of drusen.

Reticular pseudodrusen (Fig. 42) are usually identifiable on OCT images as wave-shaped patterns. The drusen extend between the RPE/Bruch's membrane complex and PR1. The external limiting membrane is usually unchanged, but peaks that break through the external limiting membrane may be visible on an OCT image.

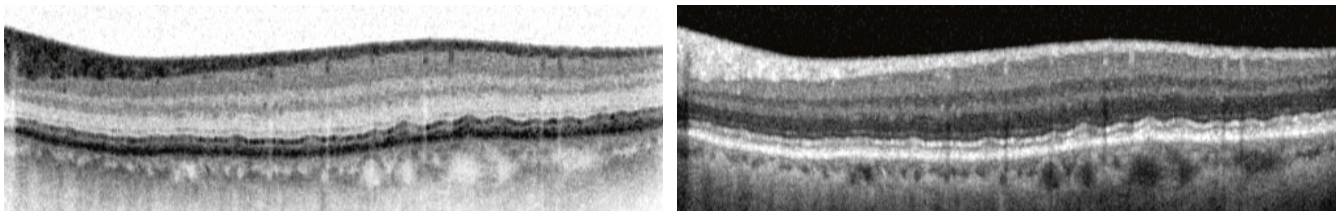

Fig. 42: Reticular drusen

4.2.2 Outer Retinal Tubulations (ORTs)

ORTs are seen as a rearrangement of the photoreceptor layers in late AMD. They are characterized as round or oval hyporeflective structures surrounded by a hyperreflective band (Fig. 43).

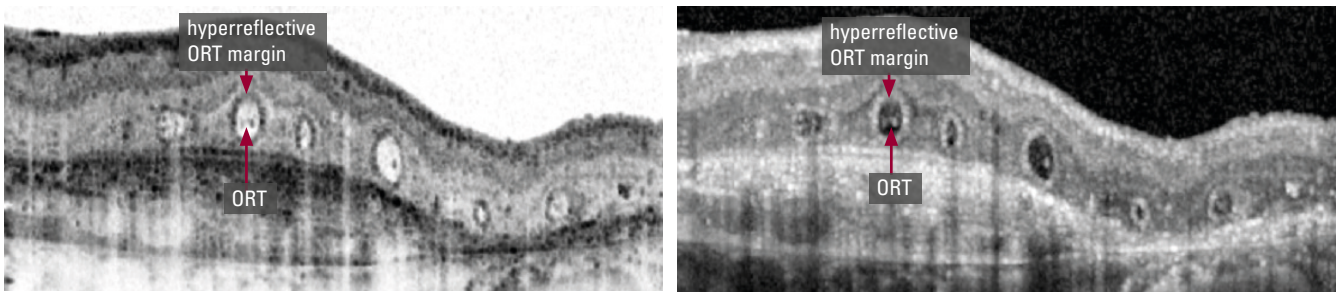

Fig. 43: Outer retinal tubulations

Transverse Section Analysis (TSA) in 60 sec

TSA Image Acquisition

The **Transverse Section Analysis (TSA)** is only available for volume scans with a maximum scan line distance of 60 microns. High resolution mode (HR) is also recommended since it doubles the acquired data points within one OCT section and thereby significantly increases the image quality of the transverse image.

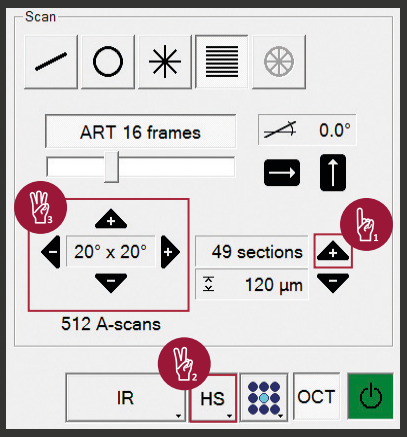

Fig. 44: Acquisition window

Detail The "*Detail*" preset scan pattern (49 scan lines, 30 microns between the scan lines, HR) fulfills all requirements mentioned above.

Otherwise, each OCT volume scan pattern can be adjusted as follows (Fig. 44):

1. Increase the number of OCT sections via ▲.
2. Press HS and select HR.
3. Increasing the amount of OCT sections leads to higher scan durations. To counteract, decrease the OCT scan field size via ▼ and/or ◀, depending on the pathology.

TSA Image Analysis

The TSA visualizes the localization as well as the extent of pathologies and can provide additional values, e.g. in case of ORTs. Despite their typical appearance in OCT images, ORTs can sometimes be misinterpreted as fluid. The transverse OCT image shows a tube system through the retina which clearly distinguishes the structure from cysts (Freund, Arch Ophthalmol. 2012;130(12):1618-1619).

1. Select tab **<<3D View>>**.
2. Select option **<<Transverse>>**.
3. Select an adequate slab.
4. Depending on the pathology's reflectivity, select **<<max/min/mean>>** to display the maximum, minimum or mean reflectivity values (within the slab) on the transverse OCT image.

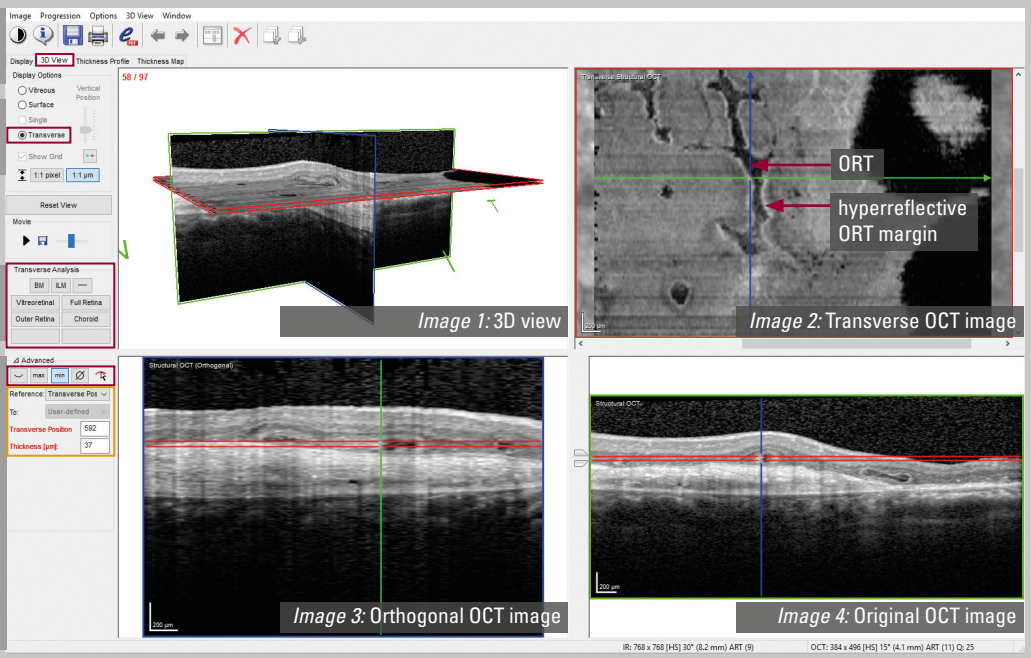

Fig. 45: Transverse Section Analysis

Slab preset (*<<Transverse Analysis>>*):
- Select a slab
- Drag and drop the red segmentation lines in *image 4* or click to *image 2* and scroll
- Change to in-/decrease the slab thickness

Individually changing the slab depending on the pathology.

Along retinal layers (highlighted in orange):
- *<<Reference>>*: Select a retinal layer*
- *<<To>>*: Select a retinal layer or the option "*User-defined*" and manually enter values in microns for "*Thickness*" and "*Distance*".

**The segmentation of all single layers has to be calculated: Right click on the image thumbnail and select <<Segmentation>> <<All Layers>>.*

5.1 Neurosensory Detachment

Neurosensory detachments can be distinguished from pigment epithelium detachments on OCT images. Fluorescein angiography is another technology that can be combined with OCT imaging to further aid in diagnosis. Chronic neurosensory detachment typically results in thickening of the photoreceptor layer as seen on OCT images (Fig. 46).

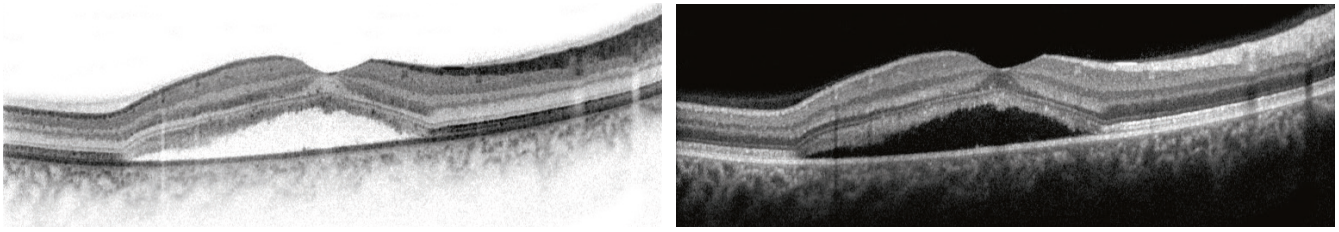

Fig. 46: Neurosensory detachment

5.2 Retinal Pigment Epithelium (RPE) and Bruch's membrane (BM)

Hard drusen (Fig. 47) appear as dot-like thickened areas or as small circumscribed bulges within the RPE band of the same or lower reflectivity. It is usually easy to define Bruch's membrane as a hyperreflective structure below the drusen. The reflectivity of Bruch's membrane usually remains unchanged.

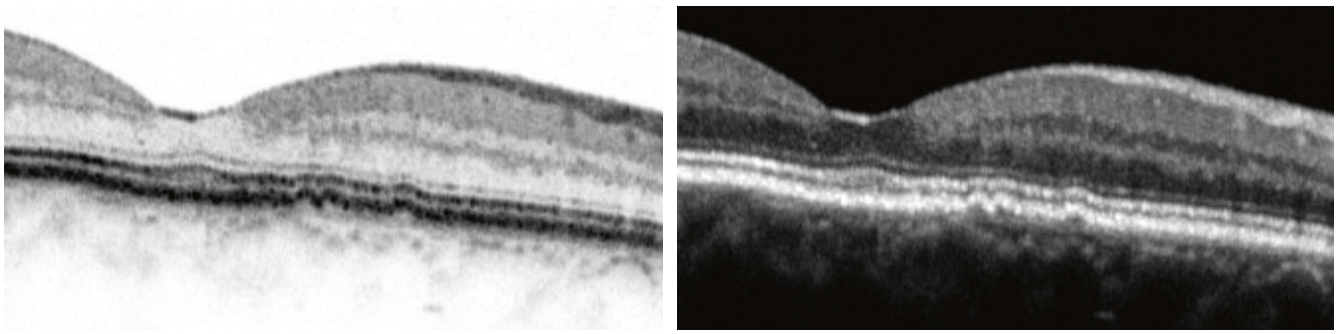

Fig. 47: Hard drusen

Soft drusen (Fig. 48) appear as wide bulges within the area of the RPE. It is usually easy to define Bruch's membrane as a hyperreflective structure below the drusen. The choroidal reflectivity usually remains unchanged.

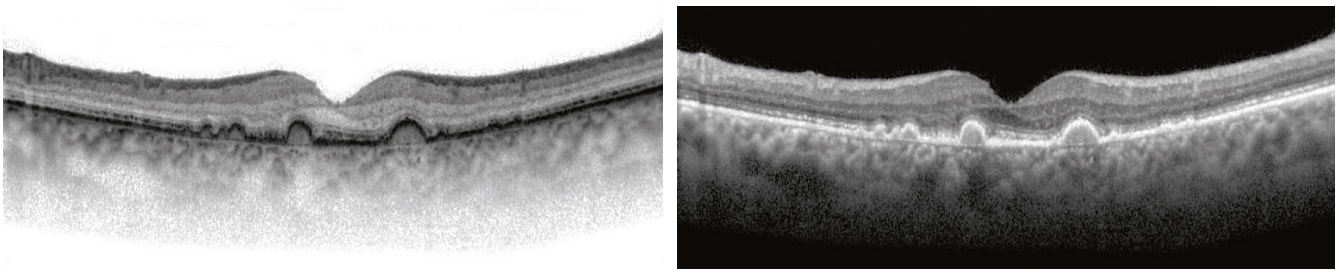

Fig. 48: Soft drusen

Drusen can merge over time (Fig. 49). In such cases, they appear as **confluent** detached areas of RPE and PR1 with unchanged reflectivity from the tissue below them.

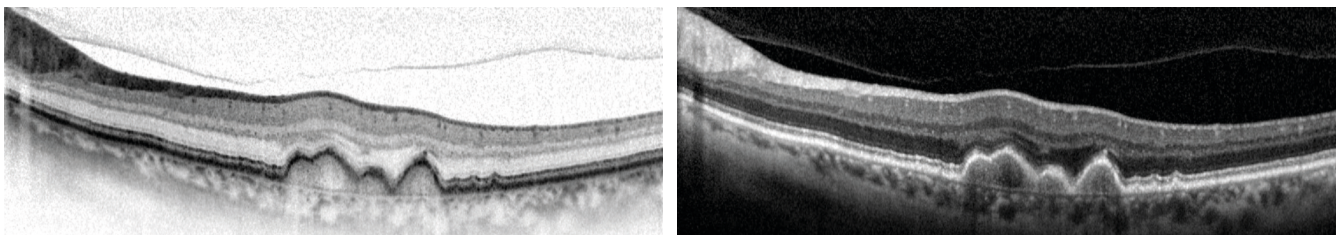

Fig. 49: Confluent drusen

AMD-associated retinal **pigment epithelial detachments** (PED) can be distinguished as serous, drusenoid or fibrovascular, depending on the type of accumulation between BM and RPE (Fig. 50). Serous PEDs are rare and show an accurately dome-shaped hyporeflective RPE elevation. The space below the RPE appears optically empty (A).

In contrast, extracellular drusen materials as well as fibrovascular structures are characterized by solid hyperreflective material beneath the RPE. Fibrovascular PEDs appear inhomogeneous (C), while drusenoid PEDs seem more homogeneous (B).

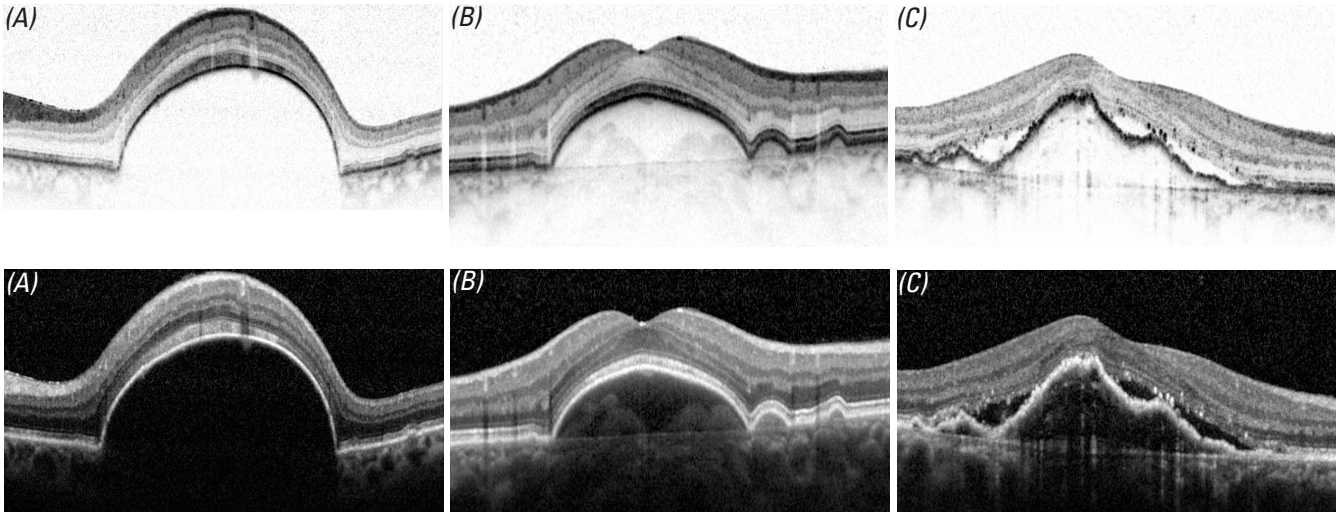

Fig. 50: RPE detachment with (A) fluid, (B) drusenoid deposit and (C) CNV

A **tear in the pigment epithelium** is best visualized when the OCT scan is placed perpendicular to the tear. At the location of the tear, it is obvious that the RPE band suddenly breaks off. Sometimes the rolled edge of the pigment epithelium can also be visualized (Fig. 51).

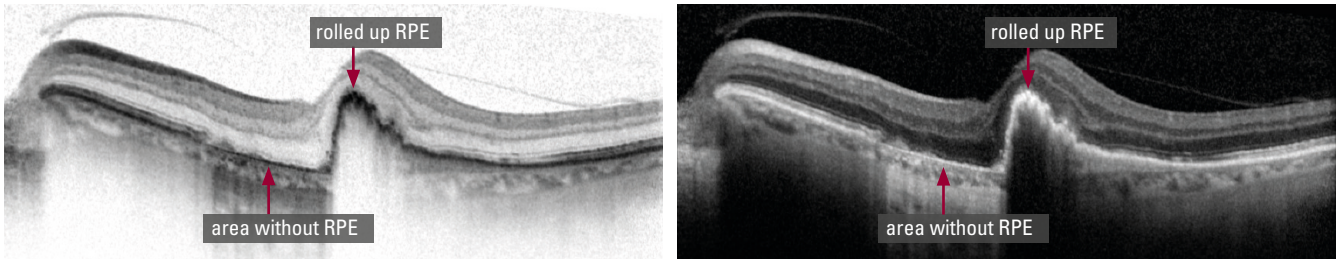

Fig. 51: RPE tear

Hypopigmentation (loss of pigment epithelium cells and photoreceptor cells) of the RPE increases the contrast of the choroid below it. This is why it is referred to as a window defect. Window defects correlate with **atrophic areas** that are optimally shown using BluePeak Blue Laser Autofluorescence (Figs. 52-53).

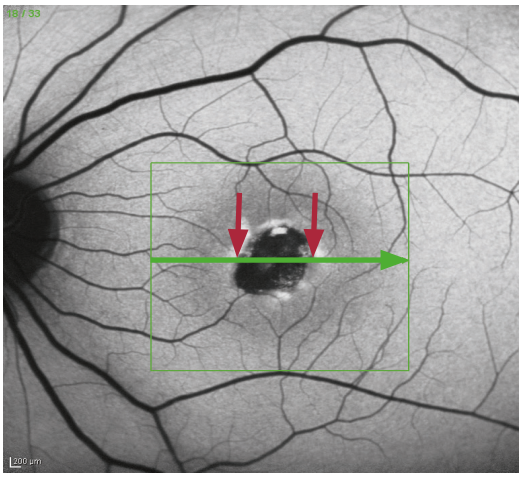

Fig. 52: Atrophic area easily defined on BluePeak Blue Laser Autofluorescence imaging

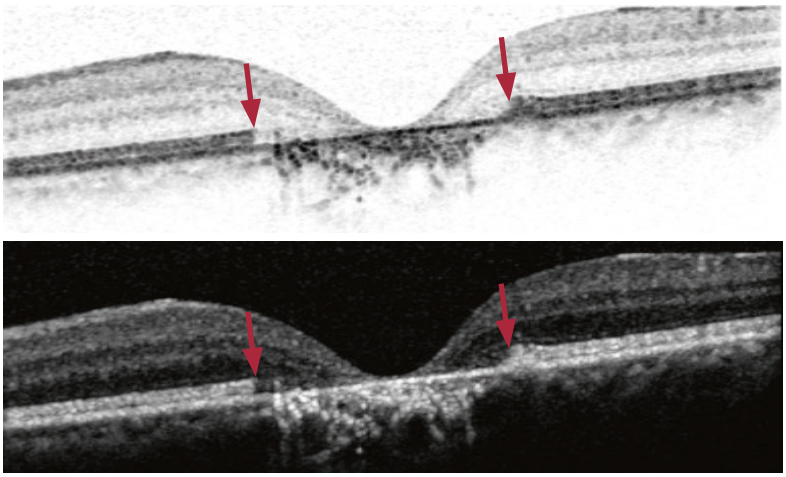

Fig. 53: The window defects visible on the OCT image correlate with the atrophic area on the BluePeak Blue Laser Autofluorescence image

5.3 Choroid

To analyze the choroid, the EDI (enhanced depth imaging) function should be selected before taking the image. When assessing the choroid using OCT, EDI is mandatory. If using an OCT2 in clinical routine, EDI is not required, since the OCT2 provides high contrast from vitreous to choroid. When using an OCT2, EDI is still recommended for clinical studies.

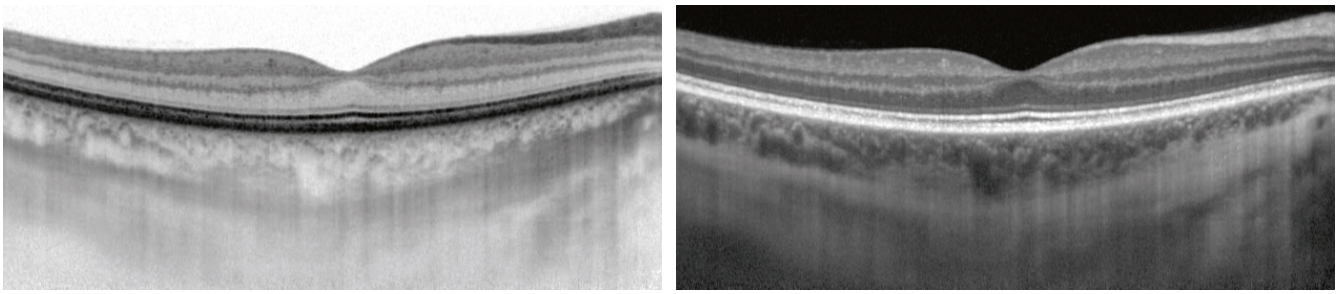

Fig. 54: OCT image with EDI

Please note: OCT section scans acquired with EDI cannot be segmented!

Neovascular membranes consist of newly formed fibrovascular networks that originate in the choroid. In rare cases of **retinal angiomatous proliferation (RAP)**, such membranes may also appear in retinal capillaries. The development of neovascular membranes is visualized on the OCT as an obvious interruption of the RPE (Fig. 55-56).

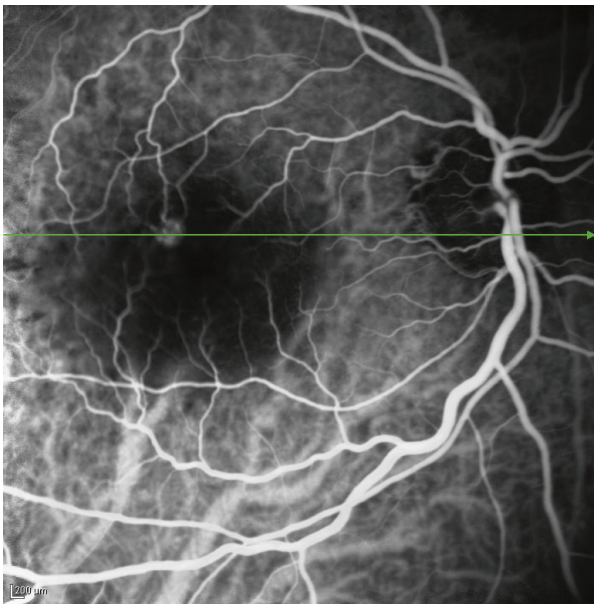

Fig. 55: ICG angiography: The position of the simultaneously performed OCT image is shown in green

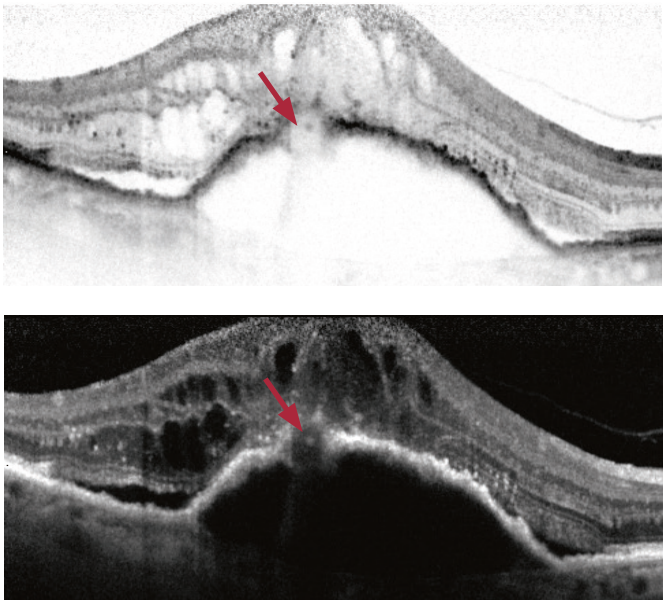

Fig. 56: Interruption of the RPE by vascularization is clearly visible on the OCT image

Fibrosis Formation

Scars appear as highly reflective, relatively homogeneous thickened areas. If they penetrate multiple layers, the retina's actual layers can no longer be identified (Fig. 57). Cystoid cavities are commonly found in the adjacent layers.

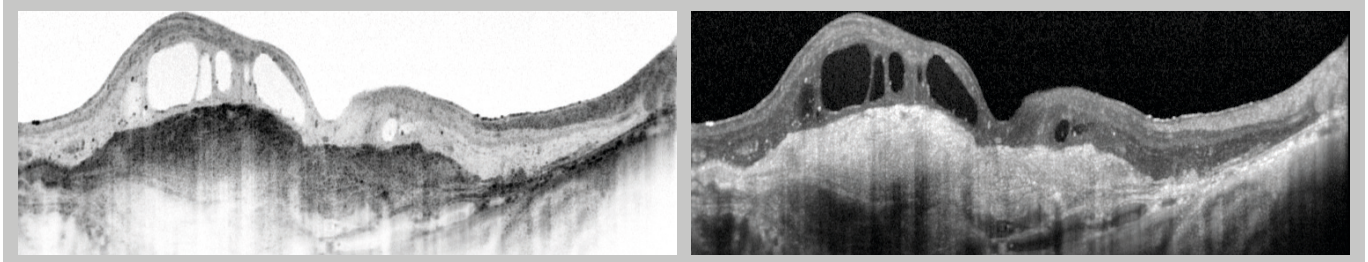

Fig. 57: Junius-Kuhnt maculopathy

Optic Disc Drusen

Physiologically, the optic nerve head (ONH) does not show a signal in the BluePeak Blue Laser Autofluorescence (BAF) image and appears black. Optic disc drusen present as hyper-autofluorescent in the BAF image (Fig. 58). In OCT, **optic disc drusen** are seen as hyporeflective areas. By using the EDI function, buried optic disc drusen can be detectable, and this should be included as part of a multimodality strategy including BAF and ultrasound assessment of the optic nerve (Fig. 59).

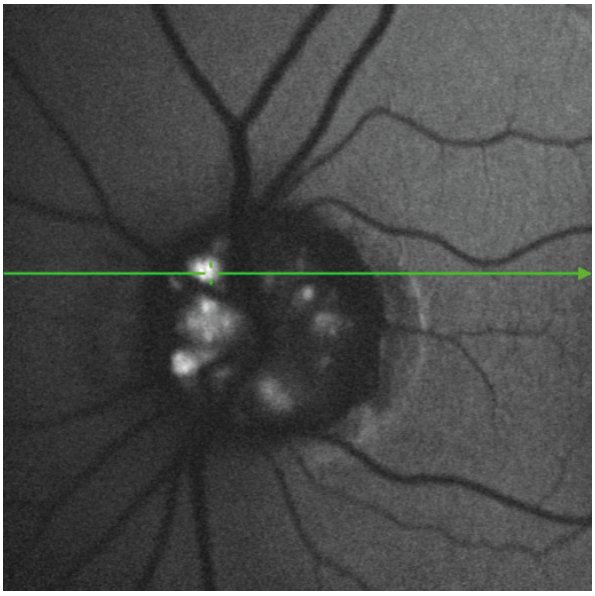

Fig. 58: Autofluorescence of optic disc drusen visible in BAF images

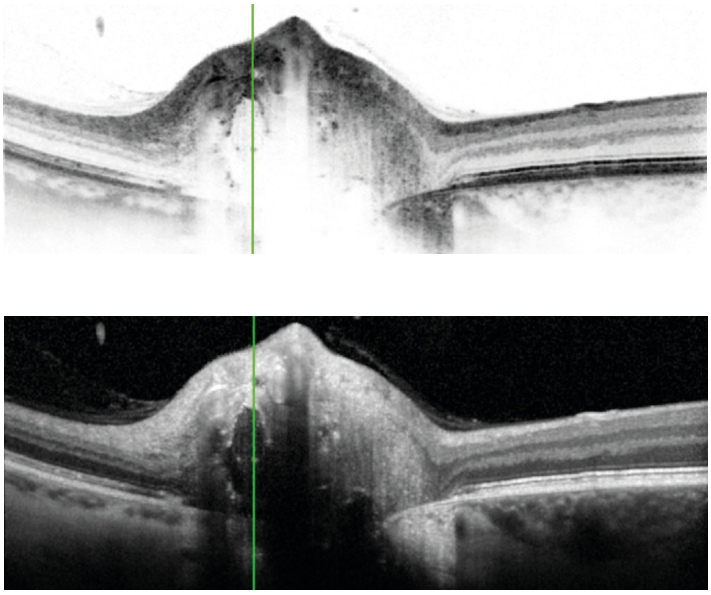

Fig. 59: Optic disc drusen appear hyporeflective in OCT

Choroidal Nevus

While **choroidal nevi** are typically seen as hyperreflective areas in the IR image (Fig. 60), they appear as light absorbing structures in the OCT image (Fig. 61). Tissues beneath the nevus are not visible.

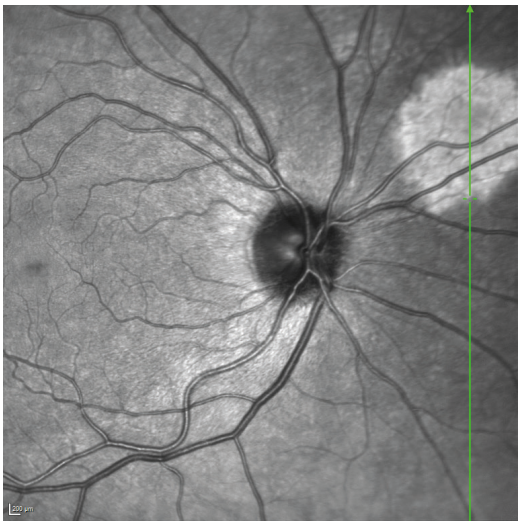

Fig. 60: Nevi appear hyperreflective in the IR image

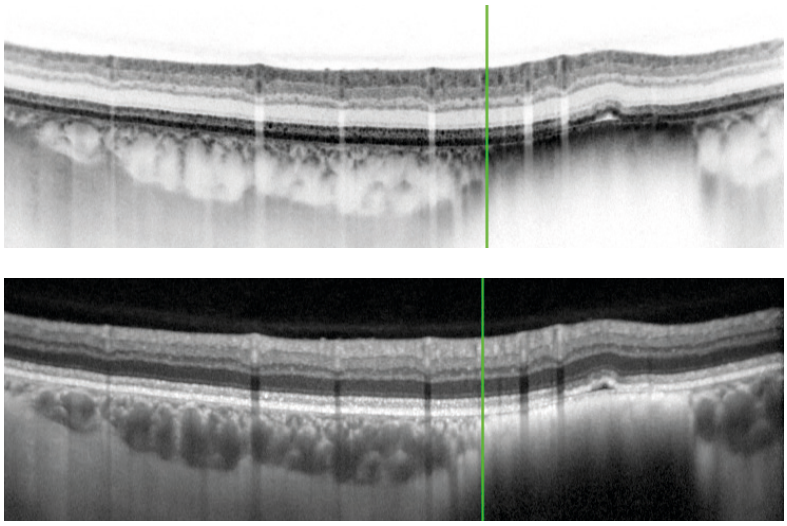

Fig. 61: Shadows caused by nevi in the OCT image

Table of Terms and Definitions

AMD	Age-related Macular Degeneration
BAF	BluePeak Blue Laser Autofluorescence
BM	Bruch's Membrane
BMO	Bruch's Membrane Opening
BMO-MRW	Bruch's Membrane Opening-based Minimum Rim Width
BR	Blue Reflectance
DME	Diabetic Macular Edema
EDI	Enhanced Depth Imaging
ELM	External Limiting Membrane
FTMH	Full Thickness Macular Hole
GCL	Ganglion Cell Layer
GMPE	Glaucoma Module Premium Edition
ICG	Indocyanine Green
ILM	Internal Limiting Membrane
INL	Inner Nuclear Layer
IPL	Inner Plexiform Layer
IR	Infrared
LMH	Lamellar Macular Hole
MRW	Minimum Rim Width
MPH	Macular Pseudo Hole
OCT	Optical Coherence Tomography
ONH	Optic Nerve Head
ONH-RC	Optic Nerve Head-Radial Circle: The ONH-RC scan pattern combines a radial scan and three concentric circle scans centered on the ONH with an Anatomic Positioning System (APS).
ONL	Outer Nuclear Layer
OPL	Outer Plexiform Layer
ORT	Outer Retinal Tubulations
PPoleH	Posterior Pole (Horizontal-oriented scan lines)
PR	Photoreceptor Layers (PR1/PR2)
RNFL	Retinal Nerve Fiber Layer
RNFLT	Retinal Nerve Fiber Layer Thickness
RAP	Retinal Angiomatous Proliferation
RPE	Retinal Pigment Epithelium
TSA	Transverse Section Analysis
VMA	Vitreo Macular Adhesion
VMT	Vitreo Macular Traction

Notes

Notes

We are very grateful to the following for providing images:

Prof. Wolf, University Clinic for Ophthalmology Inselspital Bern, Switzerland
Prof. Staurenghi, University Hospital, Milan, Italy
Prof. Holz, University Ophthalmology Clinic Bonn, Germany
Prof. Schmitz-Valckenberg, University Ophthalmology Clinic Bonn, Germany
PD S. Liakopoulos, University Hospital Cologne, Center for Ophthalmology, Germany
Prof. Asrani, Duke University Eye Center Durham, NC, USA
Prof. Mardin, Ophthalmology Clinic, University Hospital Erlangen, Germany
Dr. med. Clemens, Department of Ophthalmology, University of Münster, Germany
Prof. Paul, Neurodiagnostics Laboratory, Charité Berlin

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