

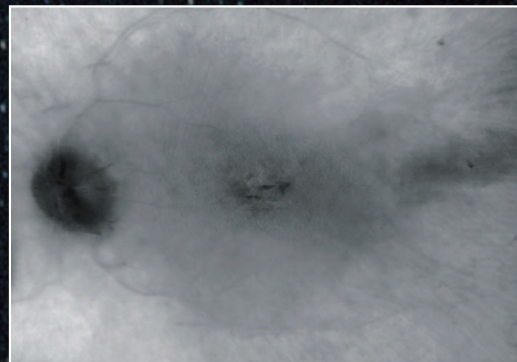
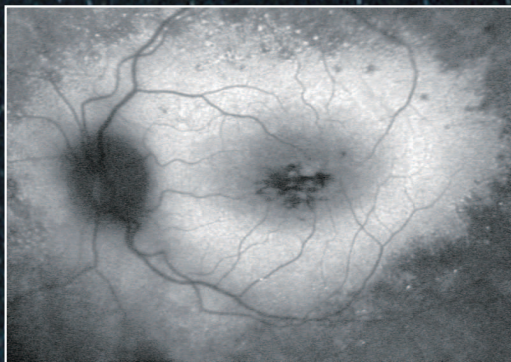
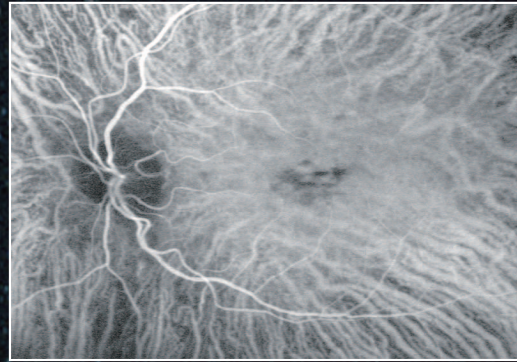
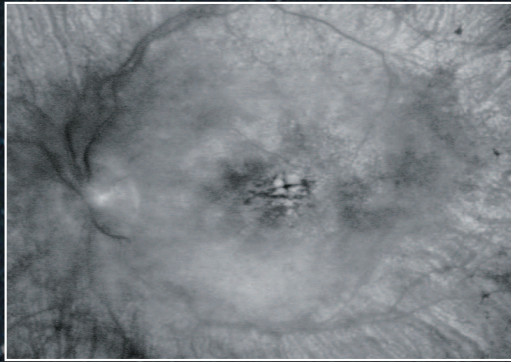


Image is Everything

F-10

Digital Ophthalmoscope

Clinical Data Book



Bartosz L. Sikorski, MD

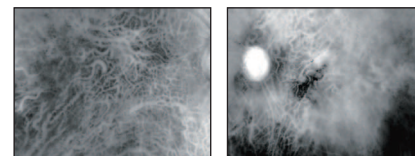
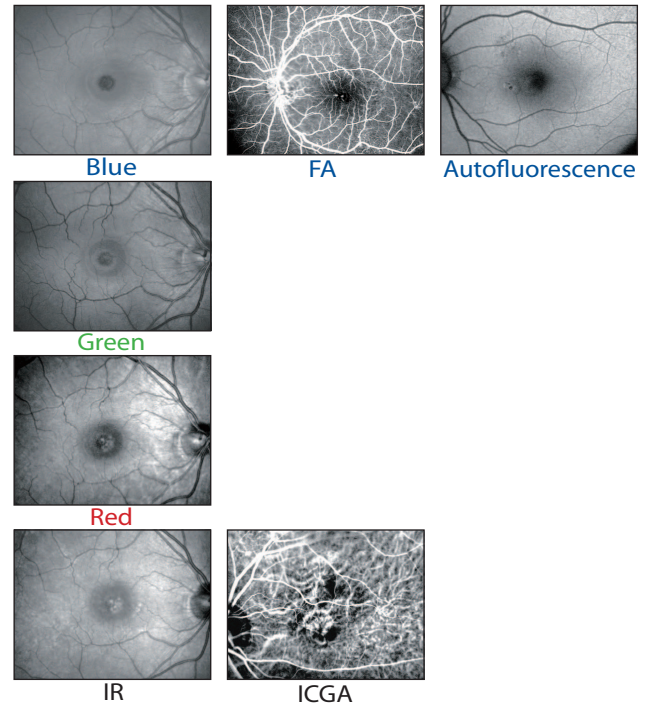
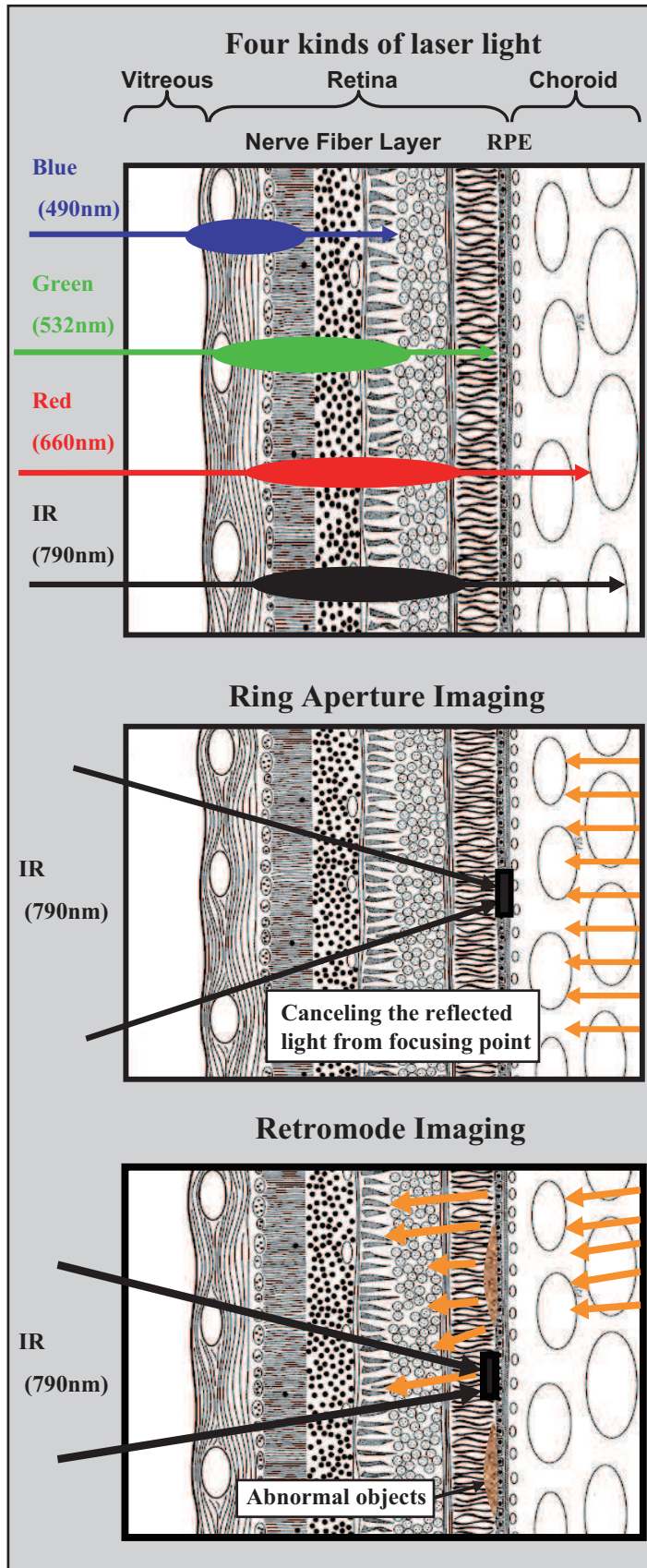
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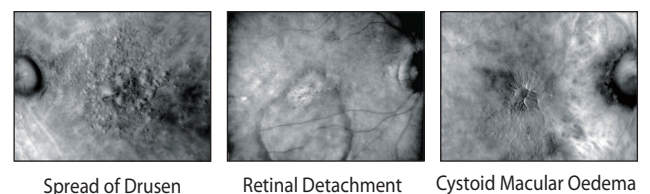
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Introduction of F-10 - Multiple and Unique Imaging device

The F-10 is the new generation of scanning laser ophthalmoscope which has eight kinds of apertures and utilizes four kinds of laser light capturing multiple retinal and choroidal images.



The reflected light from focusing point is cancelled and the scattered light from the other parts of the posterior fundus is captured. Therefore the area located deeper than retinal pigment epithelium can be visualized.



In retromode, only right hand or left hand side of Ring Aperture imaging is captured. When the scattered light coming from one hand side hits the abnormal obstacle, such as drusen or oedema, it shows anomalous reflection making the shadow of obstacle. Retromode is a new non-invasive imaging technique which allows the quick high-sensitivity detection of retinal and choroidal pathologies.

1. X-linked hereditary retinoschisis

This is a mosaic of eight 60-degree F-10 Retromode images providing pseudo three-dimensional wide-angle view of the fundus. Multiple cystic spaces accounting for the foveomacular schisis can be easily recognized in the centre (yellow arrow). They are surrounded by the area of retinal detachment that has a corrugated appearance and occupies the central and upper temporal part of the fundus (white arrows). Below the retinal detachment the pigmentary degenerative changes of scalloped edges are visible (green arrow). In the inferotemporal quadrant the peripheral retinal schisis is rendered as lifting the overlying retinal vessels that are then detected as dark stripes with fuzzy borders (blue arrow). An oval hole in the inner retinal layers can also be identified (red arrow).

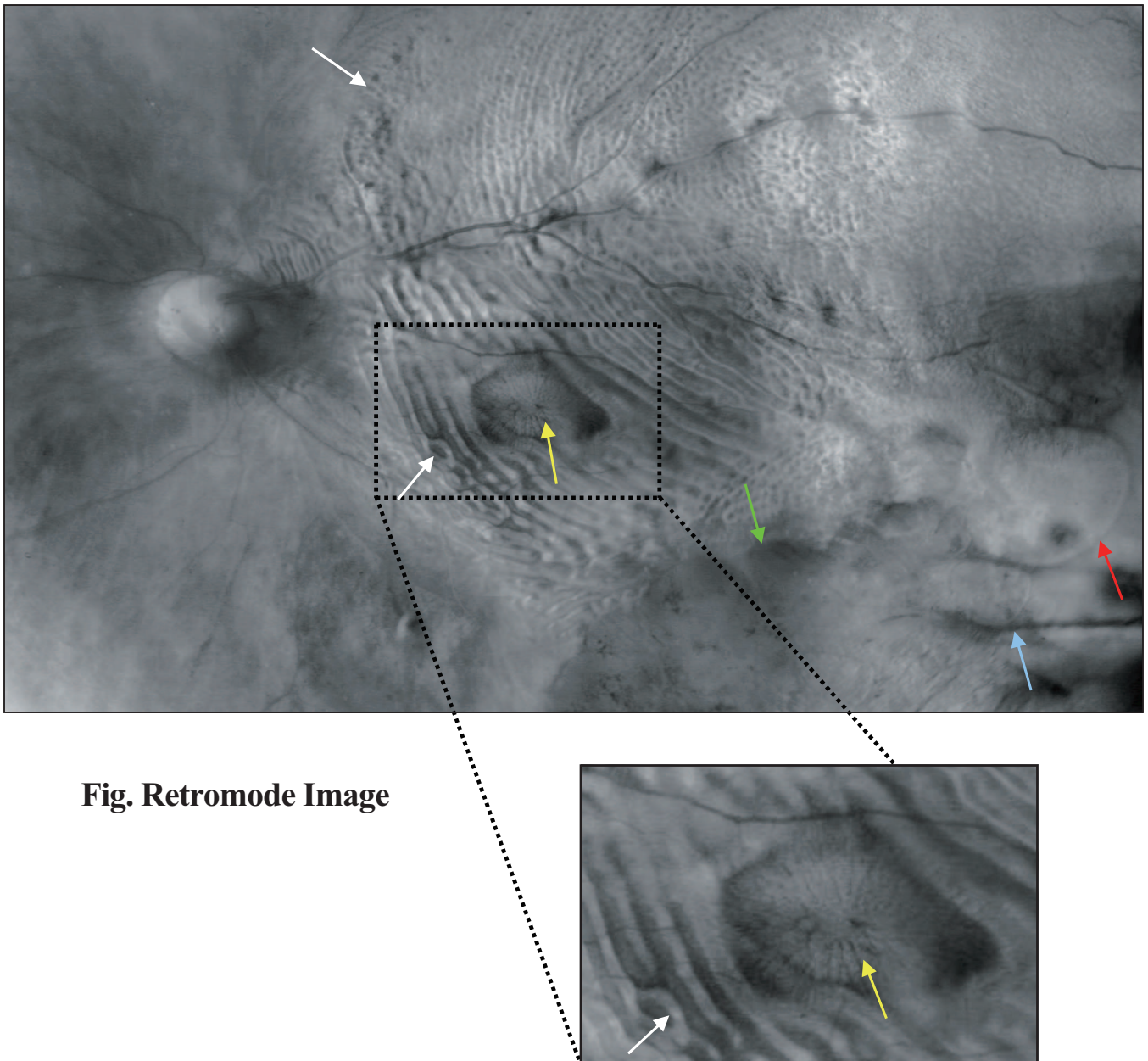


Fig. Retromode Image

2. Cystoid macular oedema associated with retinitis pigmentosa

18-year-old man, BCVA (OS) = 0.3

Colour fundus photography shows optic disc pallor and a few intraretinal haemorrhages in the fovea (Fig. 1). Spectral OCT demonstrates cystic retinal changes consistent with macular oedema (Fig. 2). The area of decreased fundus autofluorescence surrounding the macular region and optic disc is detectable at the site of retinal pigment epithelium atrophy (Fig. 3). Fluorescein angiography (FA) depicts foveal hyperfluorescence due to dye pooling in the cystoid spaces (Fig. 4). Both FA and ICGA disclose areas of blocked choroidal fluorescence associated with haemorrhages (Fig. 4, Fig. 5). The retromode taken without dye injection confirms the presence of medium-sized cystoid lesions. The wrinkled retinal surface and dark patches in the fovea that correspond to the intraretinal haemorrhages are also present (Fig. 6).

Fig. 1 Colour fundus photography



Fig. 2 SOCT

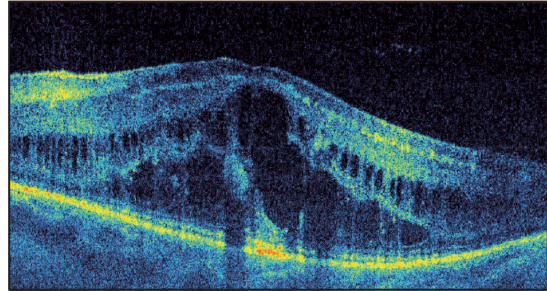


Fig. 3 Autofluorescence

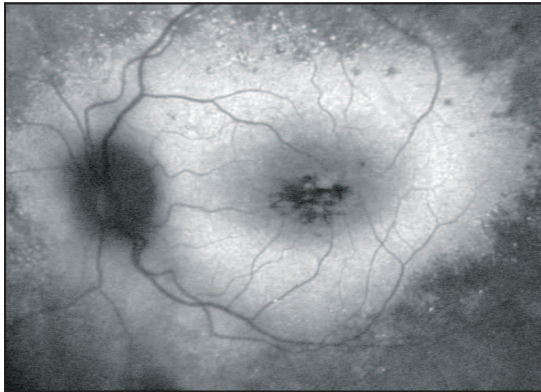


Fig. 4 FA

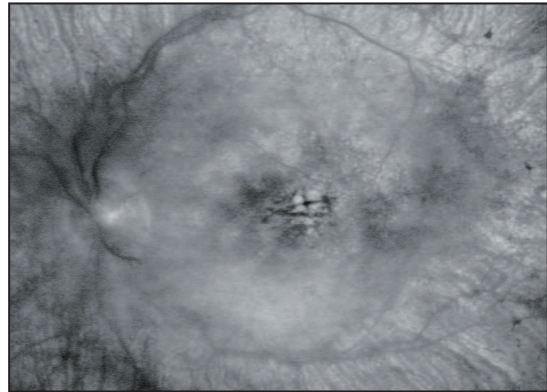


Fig. 5 ICGA

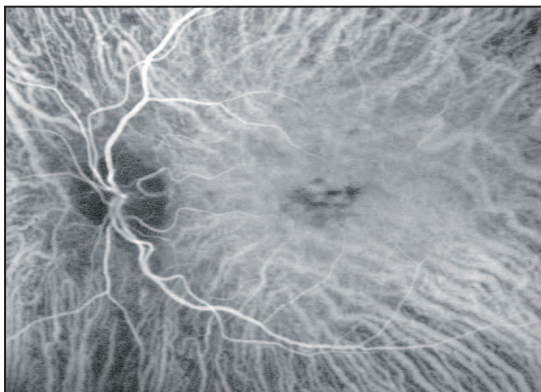
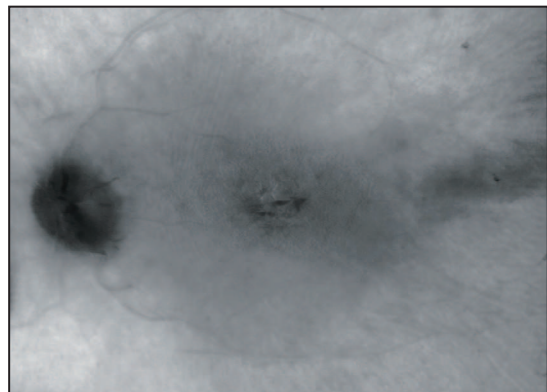


Fig. 6 Retromode



3. Stargardt's disease

10-year-old girl, BCVA (OS) = 0.1

Colour fundus photography shows pigmentary abnormalities within the central macular zone (Fig. 1). Spectral OCT reveals decreased thickness of the fovea on account of atrophic changes in outer retinal layers (Fig. 2). Autofluorescence image shows a central oval area of reduced signal and small spots of increased intensity dispersed throughout the fundus (Fig. 3). Fluorescein angiography (FA) discloses transmitted background choroidal fluorescence in the area of retinal pigment epithelium derangement surrounded by dark choroid (Fig. 4). A similar hyperfluorescent pattern in the fovea is detectable on ICGA (Fig. 5). The retromode image delineates the area of retinal pigment epithelium disturbances. The bright foci in the centre correspond to those depicted by FA. The larger choroidal vessels are represented across the entire fundus (Fig. 6).

Fig. 1 Colour fundus photography



Fig. 2 SOCT

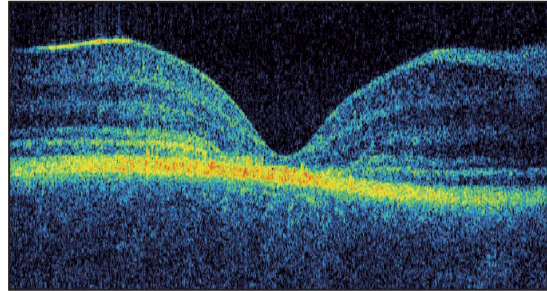


Fig. 3 Autofluorescence

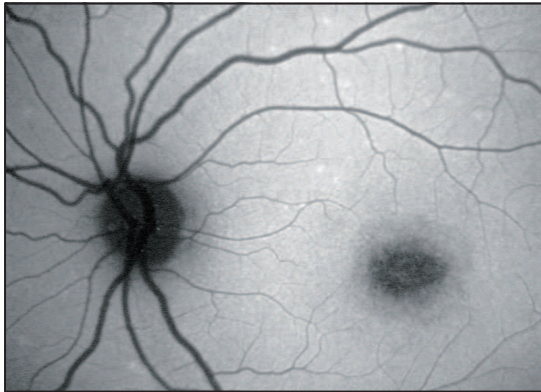


Fig. 4 FA

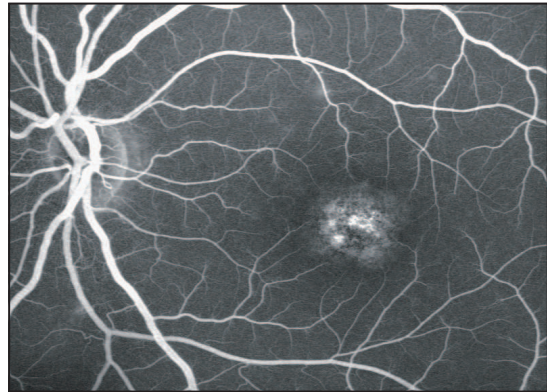


Fig. 5 ICGA

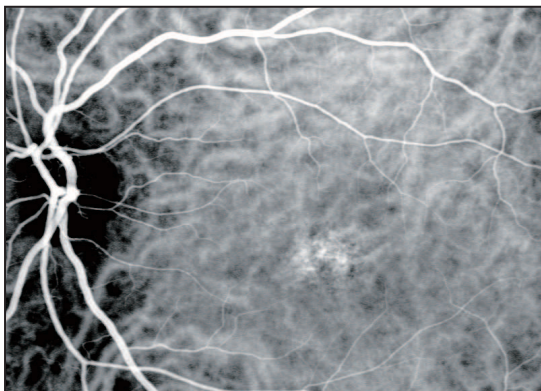
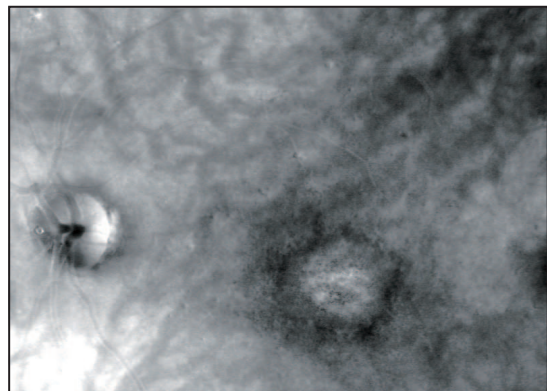


Fig. 6 Retromode



4. Adult-onset foveomacular vitelliform dystrophy

68-year-old man, BCVA (OD) = 0.9

Colour fundus photography demonstrates a faint yellow lesion accompanied by tiny pigmentary changes in the fovea (Fig. 1). Spectral OCT shows the vitelliform lesion as being located in the retinal pigment epithelium (Fig. 2). Autofluorescence signal is slightly increased in the fovea (Fig. 3). Lipofuscin deposits block background fluorescence on fluorescein angiography and ICGA (Fig. 4, Fig. 5). A similar pattern of retinal pigment epithelium disturbances is detectable by retromode image (Fig. 6). In the nasal macular region small retinal pigment epithelium irregularities are also apparent (Fig. 3, Fig. 4, Fig. 5, Fig. 6).

Fig. 1 Colour fundus photography

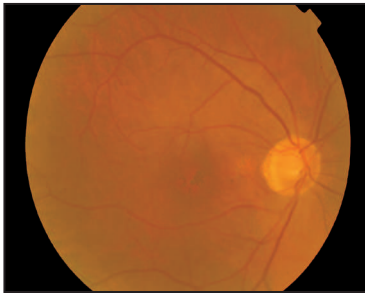


Fig. 2 SOCT

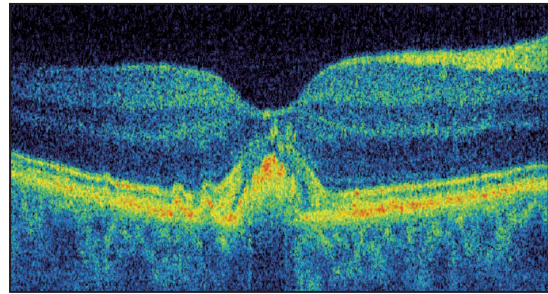


Fig. 3 Autofluorescence

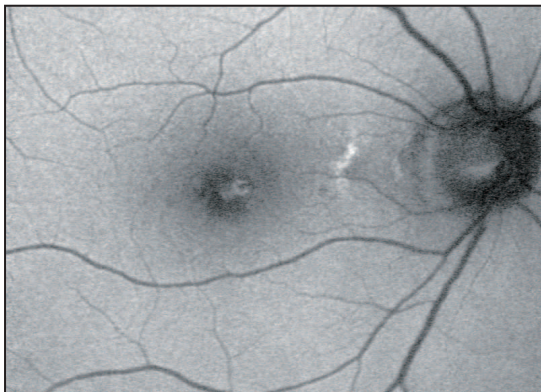


Fig. 4 FA

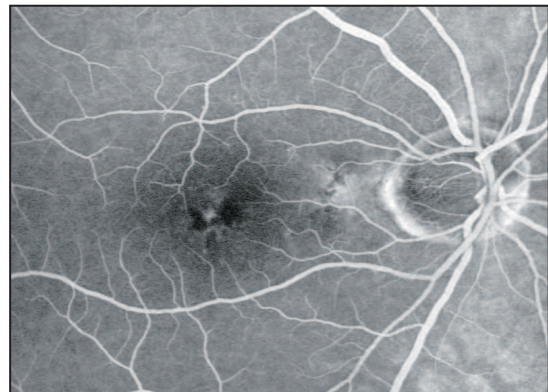


Fig. 5 ICGA

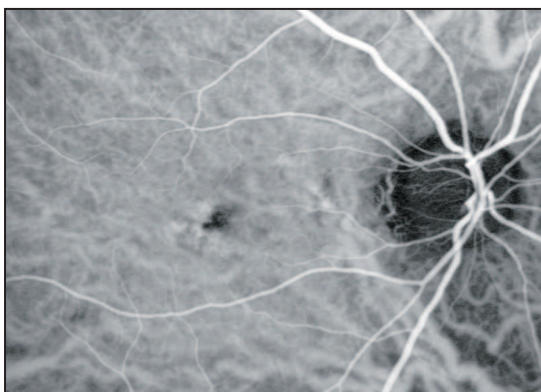
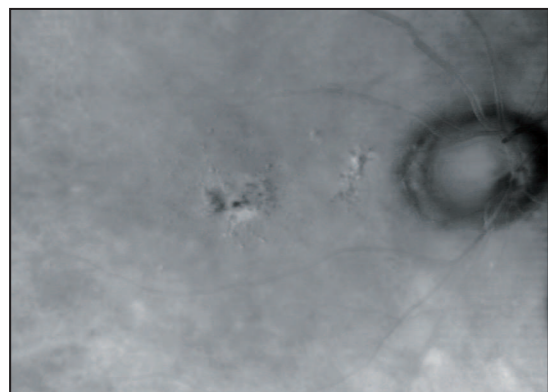


Fig. 6 Retromode



5. Central retinal vein occlusion

52-year-old man, BCVA (OS) = counting fingers

Colour fundus photography demonstrates extensive haemorrhages in all four quadrants with dilated retinal veins (Fig. 1). Spectral OCT shows hyporeflective cystic spaces within the retina consistent with macular oedema. A hyperreflective signal coming from the surface of intraretinal extravasated blood can be registered in the centre (white arrow) (Fig. 2). Autofluorescence image, fluorescein angiography (FA) and ICGA reveal fluorescence blockage due to intraretinal haemorrhages (Fig. 3, Fig. 4, Fig. 5). FA also depicts a cystoid pattern of foveal hyperfluorescence (Fig. 4). The view of the retina is not obscured by haemorrhages (only a very dense one in the centre is slightly visible) when using the technique of retromode. Multiple cystic spaces accounting for the macular oedema can then be easily recognized. Oval choroidal nevus in the inferior macular region is also surely detectable (yellow arrow) (Fig. 6).

Fig. 1 Colour fundus photography

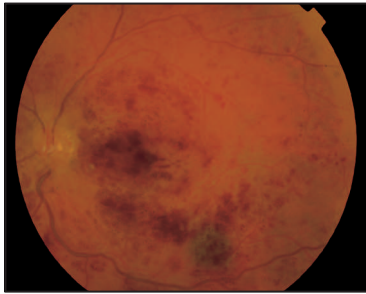


Fig. 2 SOCT

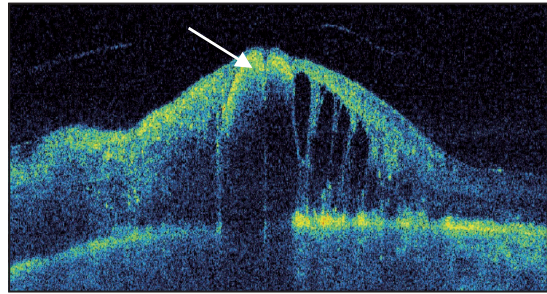


Fig. 3 Autofluorescence

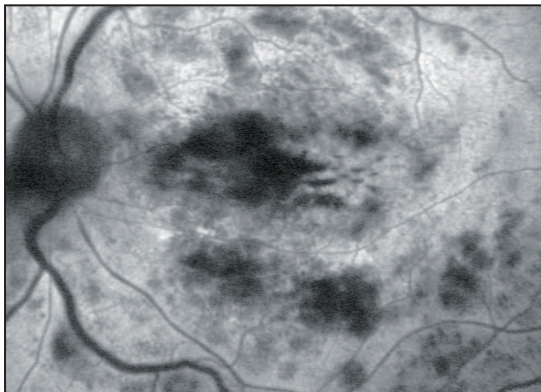


Fig. 4 FA

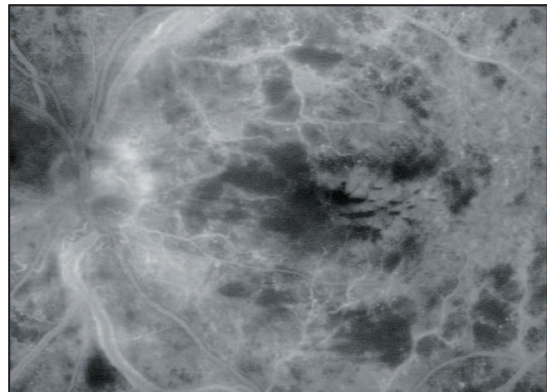


Fig. 5 ICGA

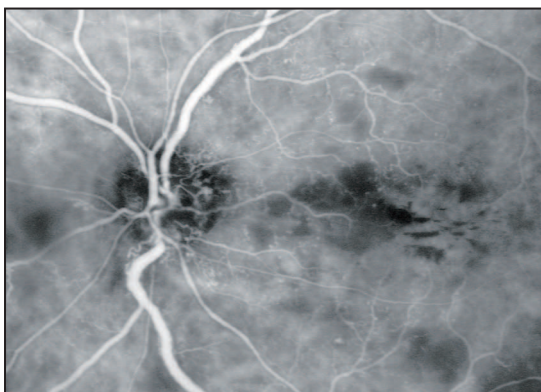
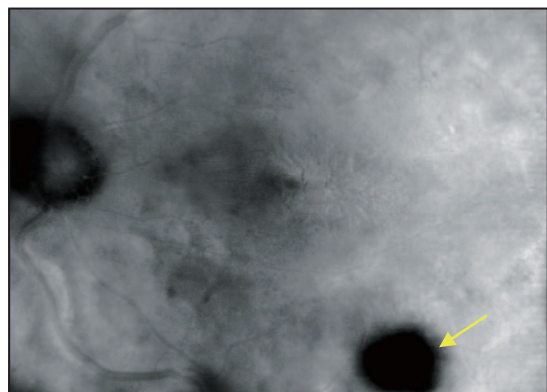


Fig. 6 Retromode



6. Retinal angiomatous proliferation

60-year-old woman, BCVA (OS) = 0.4

Colour fundus photography shows intraretinal haemorrhage in the fovea and macular soft drusen (Fig. 1). Spectral OCT reveals an area of increased reflectivity corresponding to the angiomatous changes (white arrow) and overlying intraretinal cystic spaces. Irregular elevations of retinal pigment epithelium can also be recorded (Fig. 2). The intensity of autofluorescence signal is lightly increased over the central region of the lesion (Fig. 3). Fluorescein angiography demonstrates hyperfluorescence of retinal angiomatous changes with surrounding ill-defined leakage. Drusen in the inferior portion of the macula are clearly exhibited (Fig. 4). Early-phase ICGA delineates vascular retinal lesion (Fig. 5). The retromode acutely depicts the extension of drusen themselves as well as a fairly flat lesion that is centrally located and which is accompanied by overlying cystic spaces (yellow arrow) (Fig. 6).

Fig. 1 Colour fundus photography

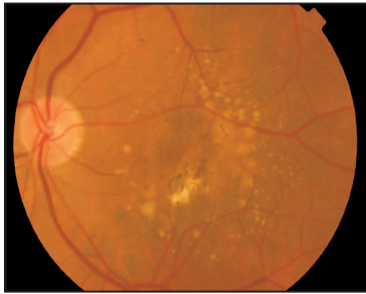


Fig. 2 SOCT

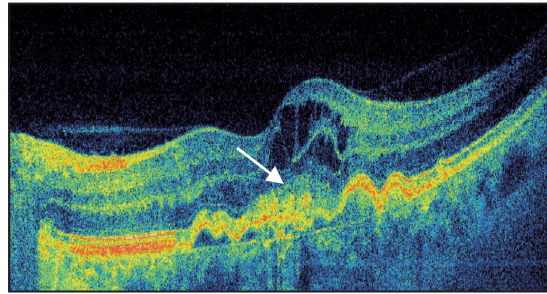


Fig. 3 Autofluorescence

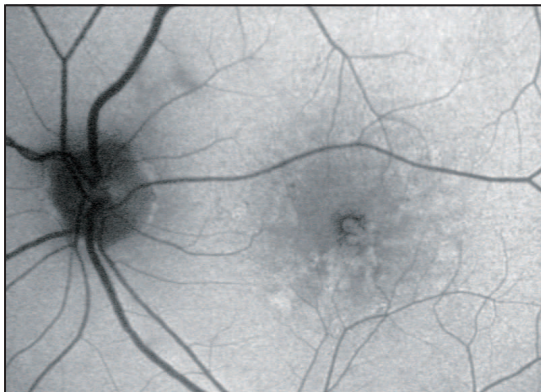


Fig. 4 FA

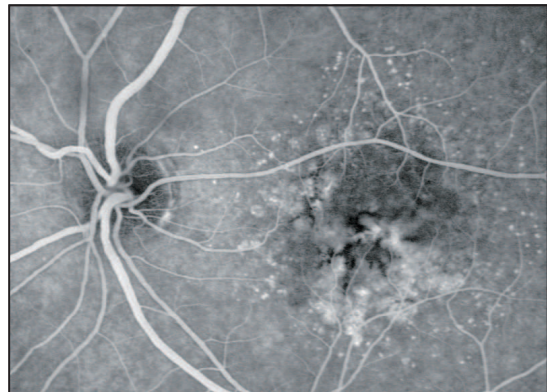


Fig. 5 ICGA

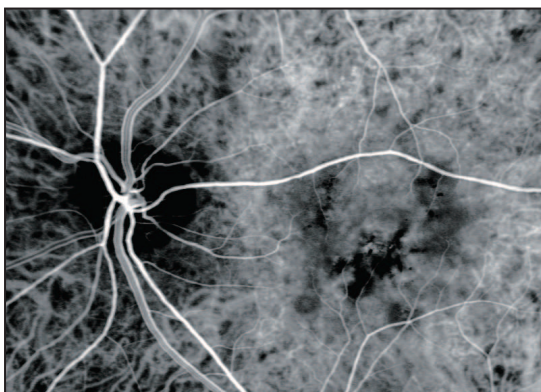
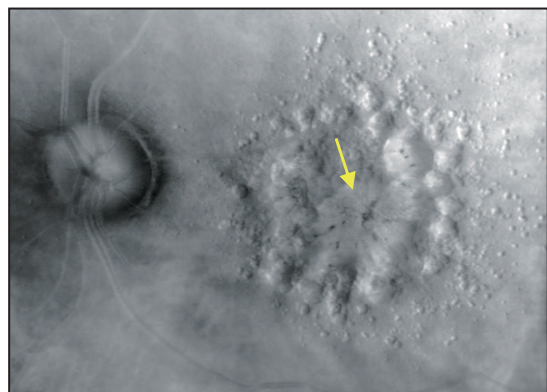


Fig. 6 Retromode



7. Epiretinal membrane

64-year-old man, BCVA (OS) = 0.5

Colour fundus photography depicts fine striae on the retinal surface (Fig. 1). Spectral OCT demonstrates a thin band of increased signal that is separated from the retinal surface in multiple areas causing distortion to the inner retinal layers (Fig. 2). The round spots that depicted decreased autofluorescence due to laser photocoagulation treatment along the temporal inferior arcade are apparent (Fig. 3). Fluorescein angiography reveals intraretinal leakage associated with the epiretinal membrane as well as retinal pigment epithelium window defects inferiorly caused by laser therapy (Fig. 4). ICGA discloses no choroidal neovascularization (Fig. 5). The retromode clearly visualizes the wrinkling of the macular surface. The sites of laser treatment are also prominently visible (Fig. 6).

Fig. 1 Colour fundus photography

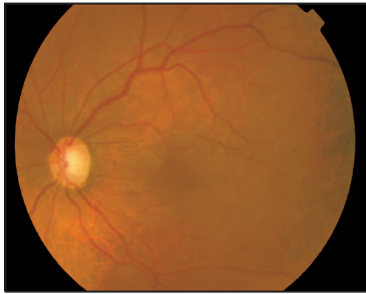


Fig. 2 SOCT

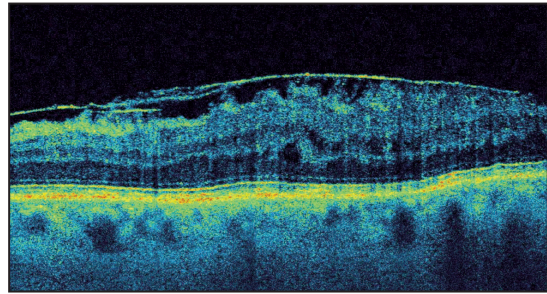


Fig. 3 Autofluorescence

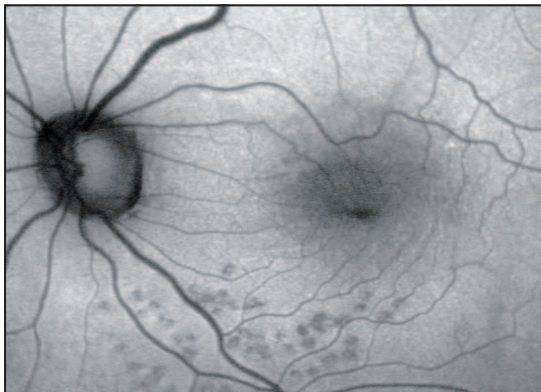


Fig. 4 FA

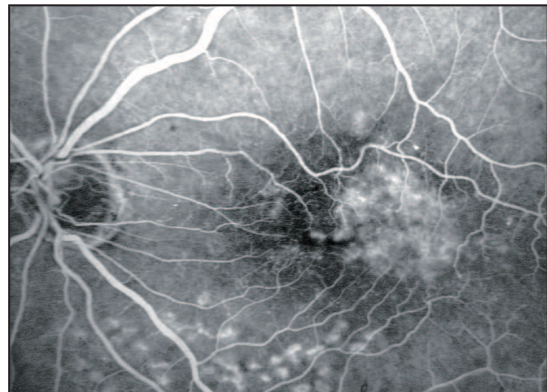


Fig. 5 ICGA

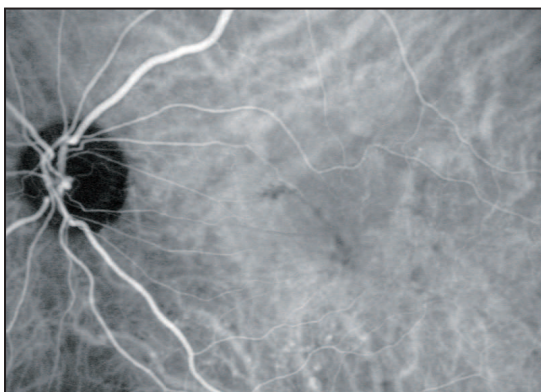
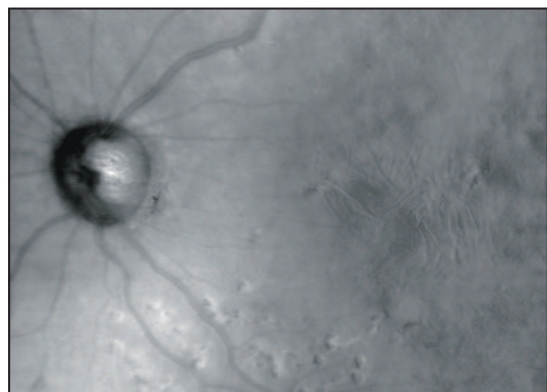


Fig. 6 Retromode



8. Pattern dystrophy

60-year-old man, BCVA (OD) = 0.4

Colour fundus photography reveals pigmented lines arrayed in a radial pattern (Fig. 1). Spectral OCT scan obtained through the fovea shows elevation of the retinal pigment epithelium together with focal pigmentary irregularities (Fig. 2). The pigmented lines have a clearly elevated level of autofluorescence (Fig. 3). On fluorescein angiography and ICGA these lines exhibit hypofluorescence as they block transmission of background fluorescence (Fig. 4, Fig. 5). The retromode image evidently delineates lesion boundaries. The pigmented lines arranged in a radial fashion are likewise depicted (Fig. 6).

Fig. 1 Colour fundus photography

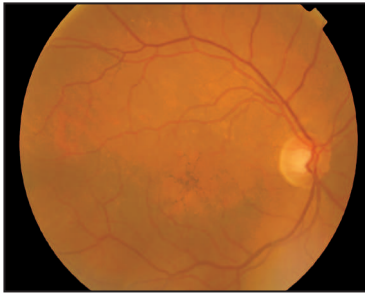


Fig. 2 SOCT

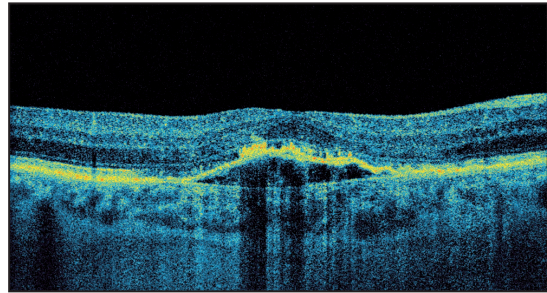


Fig. 3 Autofluorescence



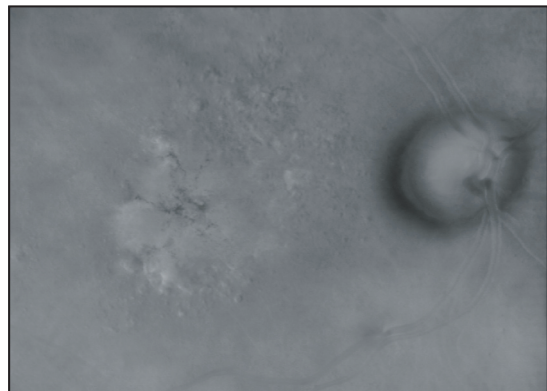
Fig. 4 FA



Fig. 5 ICGA



Fig. 6 Retromode



9. Occlusion of the inferotemporal branch of the central retinal artery

17-year-old girl, BCVA (OD) = counting fingers

Colour fundus photography shows discoloured white area of infarcted retina with interruption of the blood column (white arrow) in the occluded artery (Fig. 1). Spectral OCT disclose a surge in thickness and reflectivity of the inner retinal layers consistent with cells ischemia. The optical signal of the outer retina is shadowed by the inner layers (Fig. 2). The oedematous area of the involved retina blocks the normal background autofluorescence (Fig. 3). Fluorescein angiography (FA) reveals delayed filling of the inferotemporal branch of the central retinal artery (Fig. 4). Both FA and ICGA demonstrate hypofluorescence in the region supplied by the occluded artery (Fig. 4, Fig. 5). The retromode shows a somewhat ground-glass-like appearance of ischemic retina (Fig. 6).

Fig. 1 Colour fundus photography

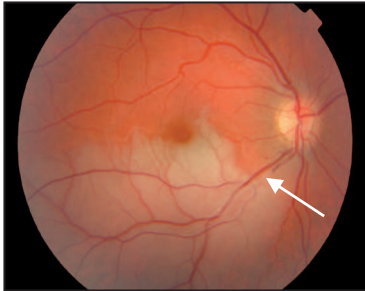


Fig. 2 SOCT

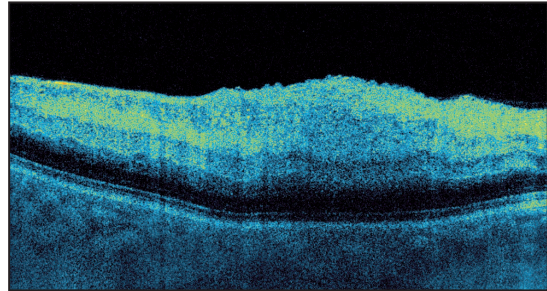


Fig. 3 Autofluorescence

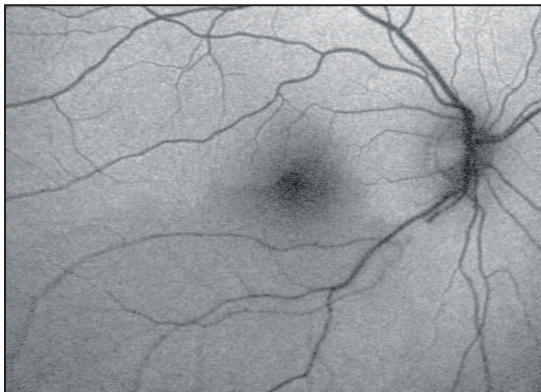


Fig. 4 FA



Fig. 5 ICGA

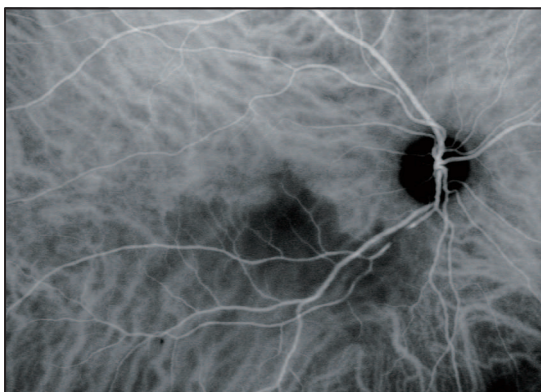
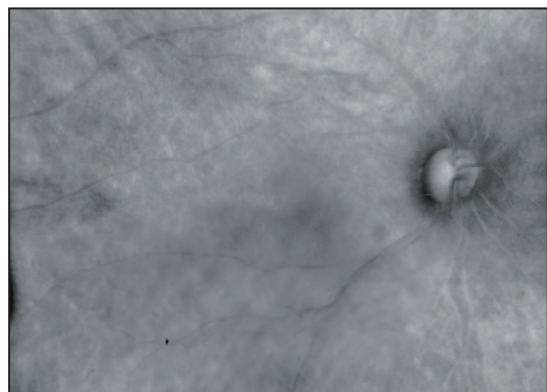


Fig. 6 Retromode



10. Acute zonal occult outer retinopathy

16-year-old boy, BCVA (OD) = 0.4

Colour fundus photography shows pigmentary alternations with zones of retinal pigment epithelium atrophy. Large choroidal vessels are recorded in the periphery (Fig. 1). Spectral OCT demonstrates a loss of photoreceptor inner and outer segment junction reflectivity around the fovea together with focal pigmentary irregularities in the centre (Fig. 2). Fluorescein angiography reveals numerous pigmentary alternations and extensive retinal pigment epithelium atrophy (Fig. 4). Autofluorescence image, ICGA and retromode depict the pattern of choroidal vessels (Fig. 3, Fig. 5, Fig. 6).

Fig. 1 Colour fundus photography

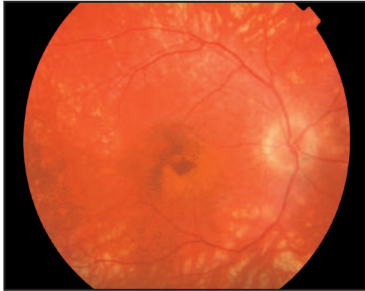


Fig. 2 SOCT

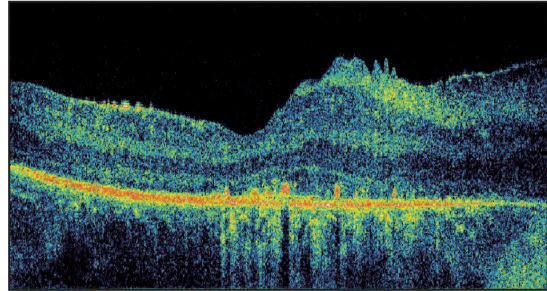


Fig. 3 Autofluorescence

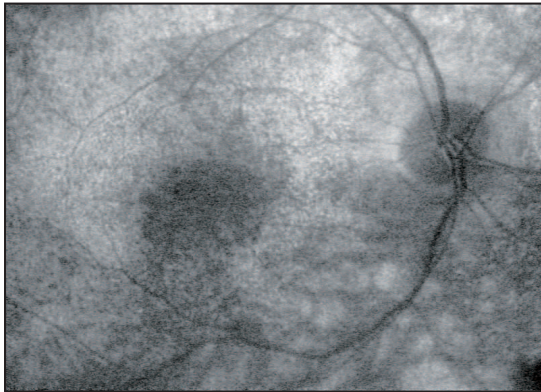


Fig. 4 FA

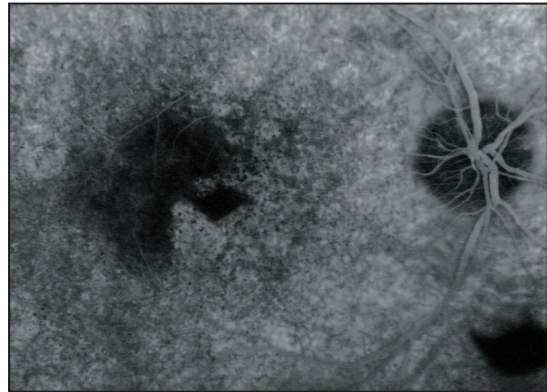


Fig. 5 ICGA

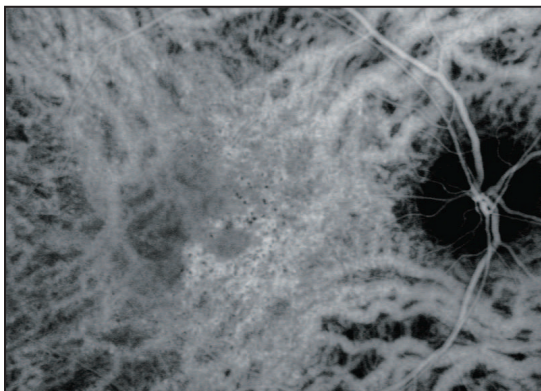
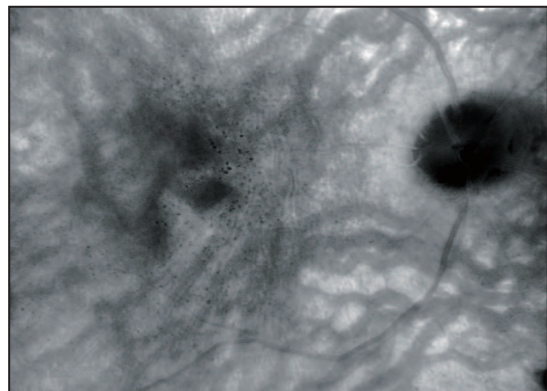


Fig. 6 Retromode



11. Traumatic macular hole

32-year-old man, BCVA (OS) = 0.5

Colour fundus photography shows round lesion in the central macula (Fig. 1). Spectral OCT demonstrates the full-thickness macular hole surrounded by intraretinal oedema (Fig. 2). The missing luteal pigment in the region of the hole causes a window defect that transmits the autofluorescence of retinal pigment epithelium (Fig. 3). A hole appears hyperfluorescent during fluorescein angiography and ICGA (Fig. 4, Fig. 5). The retromode accurately visualizes the hole in the fovea as well as surrounding cystic spaces within the sensory retina (Fig. 6).

Fig. 1 Colour fundus photography

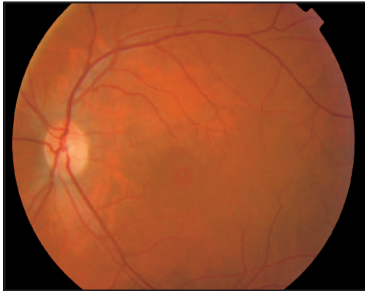


Fig. 2 SOCT

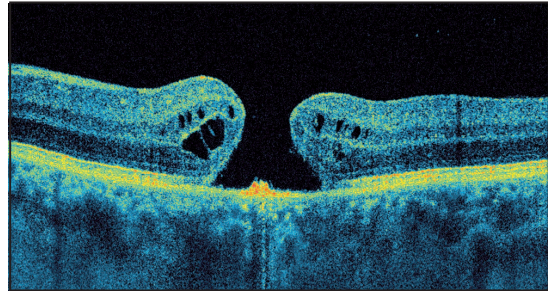


Fig. 3 Autofluorescence

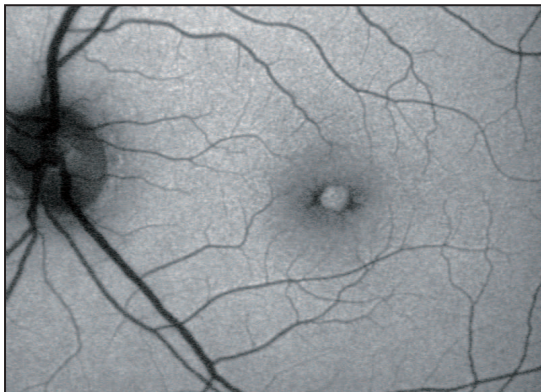


Fig. 4 FA

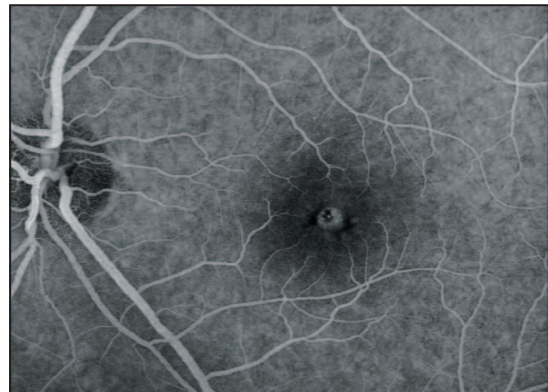


Fig. 5 ICGA

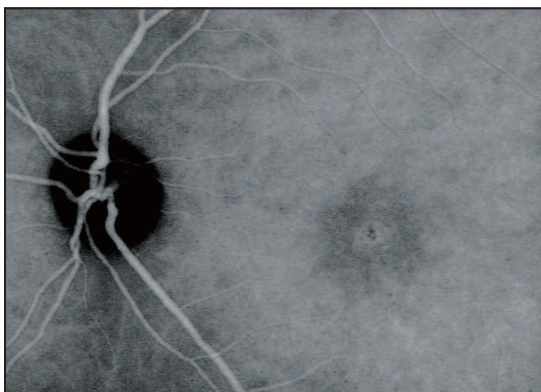
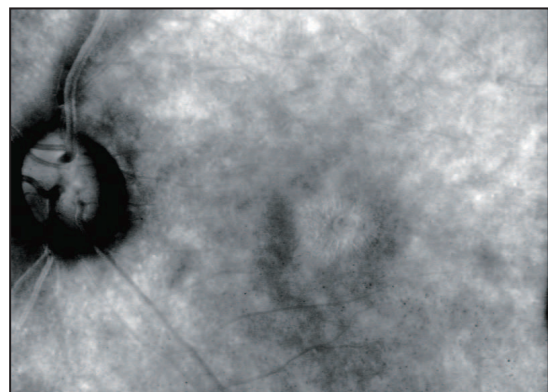


Fig. 6 Retromode



12. Drusenoid pigment epithelial detachment

46-year-old man, BCVA (OS) = 0.6

Colour fundus photography shows drusenoid pigment epithelial detachment (Fig. 1). Spectral OCT demonstrates altered foveal contour with intraretinal fluid overlying a prominent elevation of retinal pigment epithelium. A deeper light penetration into the drusenoid structure is rendered in the centre (Fig. 2). The foveal sparing pattern of increased autofluorescence at the site of a pigment epithelial detachment is clearly noticeable. The signal coming from the fovea is inappreciably reduced (Fig. 3). Fluorescein angiography and ICGA show an oval-shaped, well-circumscribed staining field in the place of retinal pigment epithelium damage surrounded by the hypofluorescent zone. The intensity of the latter region is exaggerated due to the low contrast image (Fig. 4, Fig. 5). The retromode finely visualizes the extent of retinal pigment epithelium elevations. Pigmentary alternations and tiny intraretinal cystic spaces in the fovea are additionally depicted (white arrow) (Fig. 6).

Fig. 1 Colour fundus photography



Fig. 2 SOCT

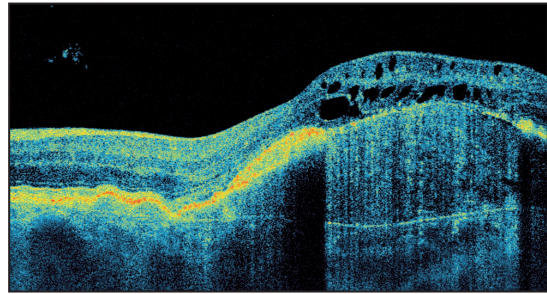


Fig. 3 Autofluorescence

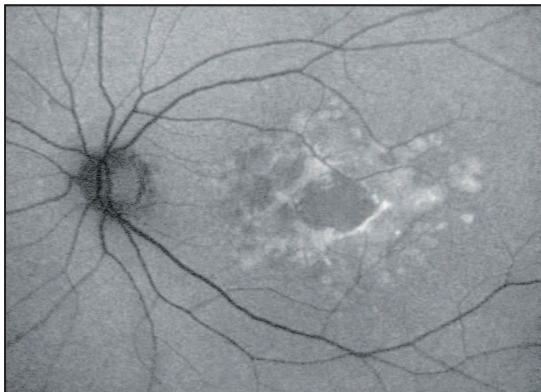


Fig. 4 FA

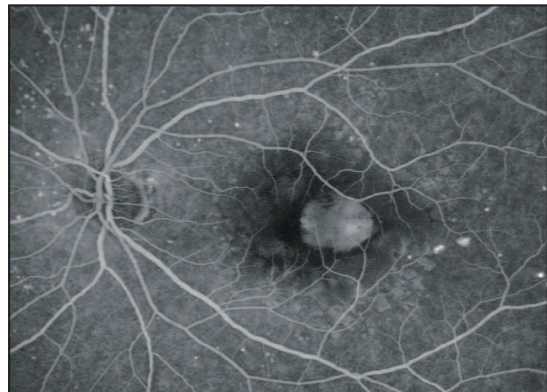


Fig. 5 ICGA

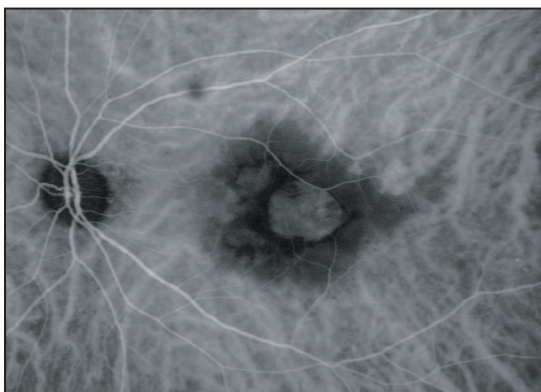
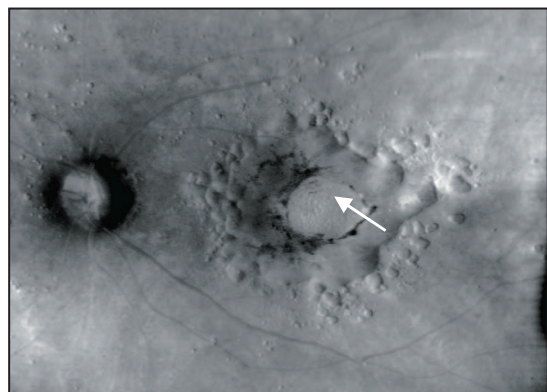


Fig. 6 Retromode



13. Choroidal nevus

70-year-old man, BCVA (OS) = 0.9

Colour fundus photography shows the large choroidal nevus in the inferior quadrant that has remained unaltered over the past four years (Fig. 1). Spectral OCT reveals a prominent retinal pigment epithelium elevation. There is no intra- and subretinal fluid accumulation (Fig. 2). Autofluorescence image discloses a decreased signal over the lesion with a hyperfluorescent band along its inferior margin (Fig. 3). Fluorescein angiography demonstrates irregular hyperfluorescence in the area of the nevus (Fig. 4). The central part of the lesion is hypofluorescent on ICGA. In the lower left corner of the image the vortex vein is designated (Fig. 5). The retromode shows dark area that corresponds well with the shape of choroidal nevus seen on colour fundus photography (Fig. 6).

Fig. 1 Colour fundus photography

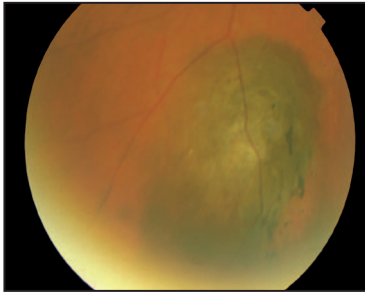


Fig. 2 SOCT

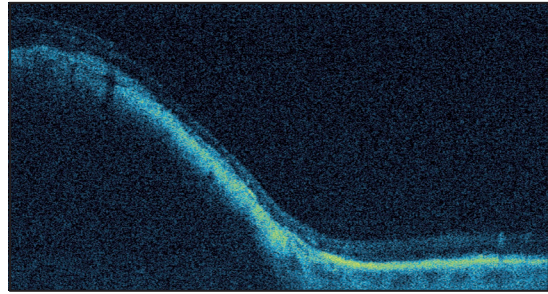


Fig. 3 Autofluorescence

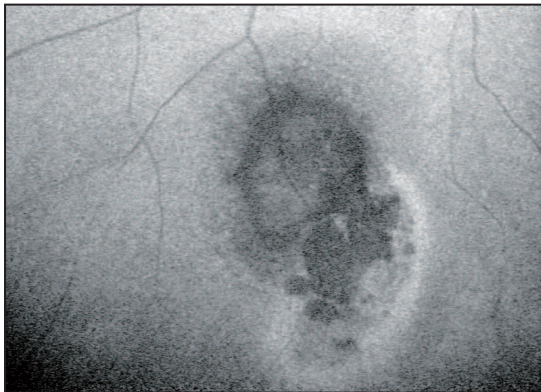


Fig. 4 FA

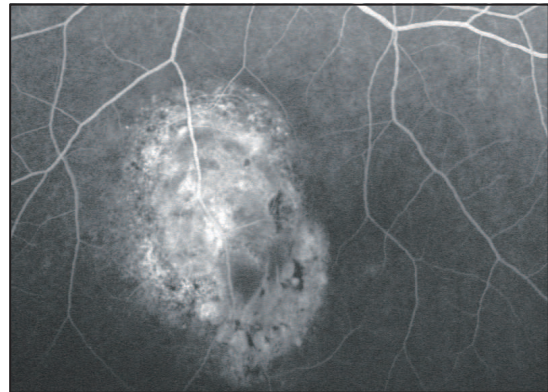


Fig. 5 ICGA

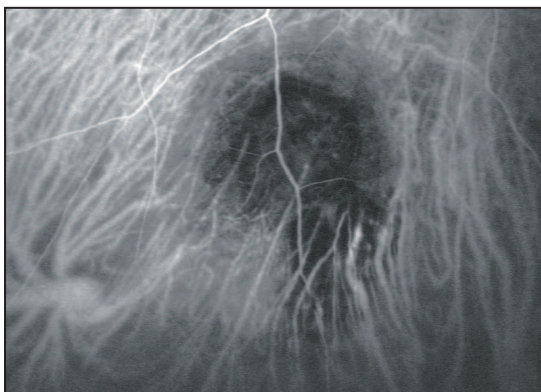
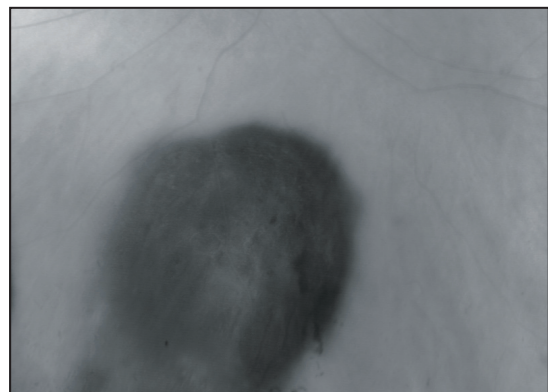


Fig. 6 Retromode



14. Retinal pigment epithelium tear in choroidal neovascularization

63-year-old woman, BCVA (OD) = 0.2

Colour fundus photography demonstrates a pale yellow area within the papillomacular bundle in which the retinal pigment epithelium has been torn away and is missing (Fig. 1). Spectral OCT reveals retinal pigment epithelium tear with an inwardly curled margin (Fig. 2). There is a moderate amount of subretinal fluid at the nasal part of the fovea (Fig. 2). The area with retinal pigment epithelium loss is characterised by a low autofluorescence signal (Fig. 3). Retracted and thickened retinal pigment epithelium blocks the background fluorescence on fluorescein angiography and ICGA (Fig. 4, Fig. 5). The retromode illustrates the area with rolled-up retinal pigment epithelium in relation to the entire lesion (Fig. 6).

Fig. 1 Colour fundus photography

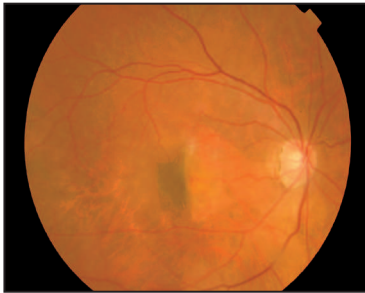


Fig. 2 SOCT

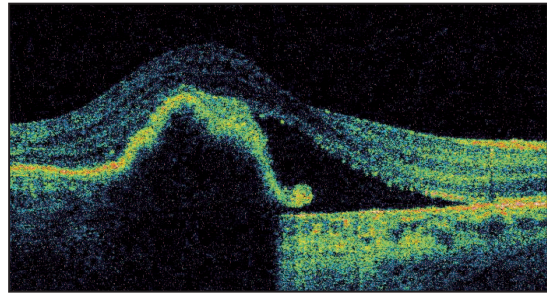


Fig. 3 Autofluorescence

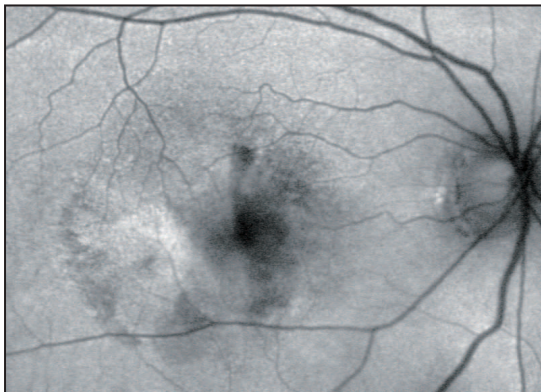


Fig. 4 FA

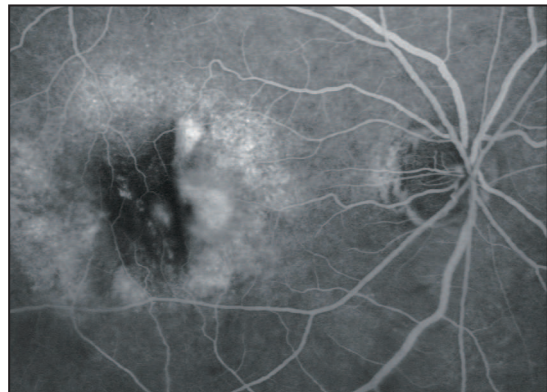


Fig. 5 ICGA

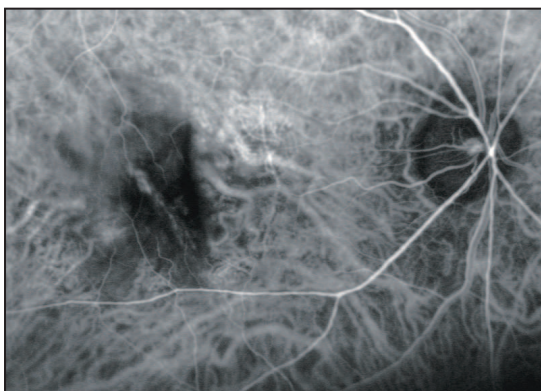
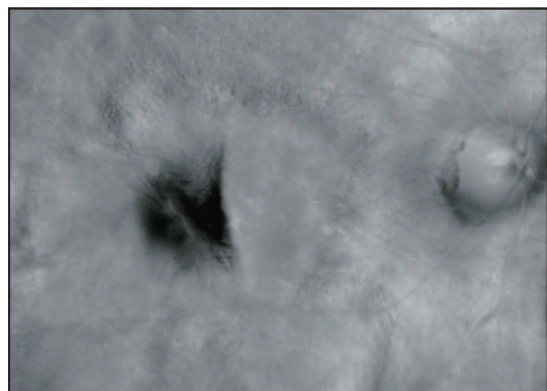


Fig. 6 Retromode



15. Cilioretinal artery occlusion with central retinal vein obstruction

47-year-old man, BCVA (OD) = light perception

Colour fundus photography shows retinal whitening along the distribution of the blocked cilioretinal artery. Intraretinal haemorrhages in all four quadrants are visible (Fig. 1). Spectral OCT reveals a subretinal fluid and retinal swelling at the fovea (Fig. 2). The retinal oedema and haemorrhages block autofluorescence signal (Fig. 3). Fluorescein angiography and ICGA demonstrate absent cilioretinal artery filling and delayed arteriovenous transit time (Fig. 4, Fig. 5). The retromode shows the elevation of the retinal surface in the wedge-shaped area supplied by the affected vessel (Fig. 6).

Fig. 1 Colour fundus photography



Fig. 2 SOCT

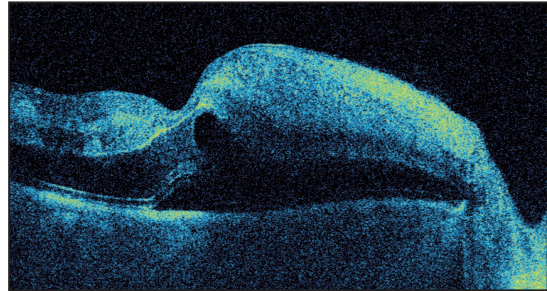


Fig. 3 Autofluorescence



Fig. 4 FA

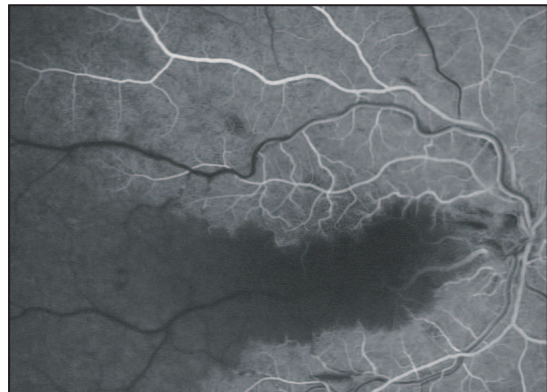
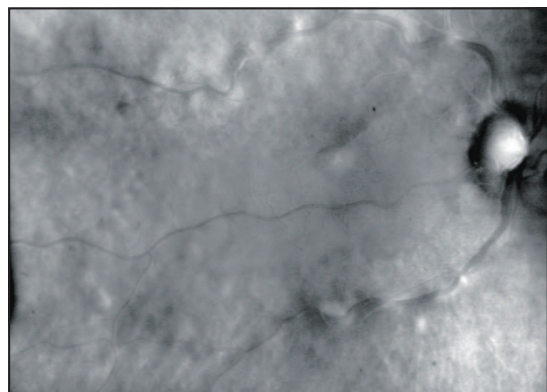


Fig. 5 ICGA



Fig. 6 Retromode



16. Myelinated retinal nerve fibres with choroidal folds

48-year-old man, BCVA (OS) = 0.9

Colour fundus photography shows a white, opaque colouring of the nerve fibre layer on the nasal side of the optic disc (Fig. 1). Spectral OCT reveals an area of increased reflectivity at the level of the nerve fibre layer corresponding with the myelinated fibres. Blocking of the signal from the tissue below this highly reflective area is apparent (Fig. 2). The myelinated nerve fibres block both the autofluorescence signal as well as the background fluorescence phenomenon during fluorescein angiography (FA) and ICGA (Fig. 3, Fig. 4, Fig. 5). Alternating bright and dark lines correlating with choroidal folds are noticeable in Figures 4 and 5 in the inferior macular region. However, hyperfluorescent lines on ICGA are wider than those seen in FA. The retromode shows an area of myelinated retinal nerve fibres as well as choroidal folds (Fig. 6).

Fig. 1 Colour fundus photography

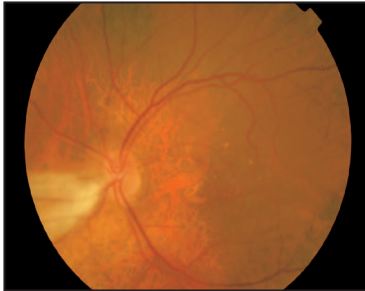


Fig. 2 SOCT

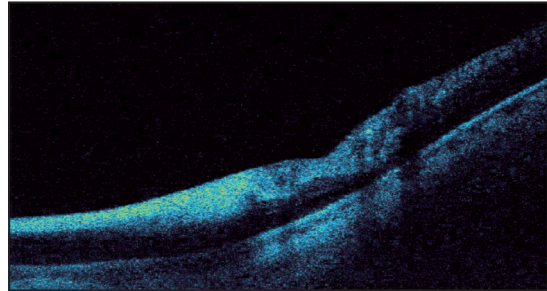


Fig. 3 Autofluorescence

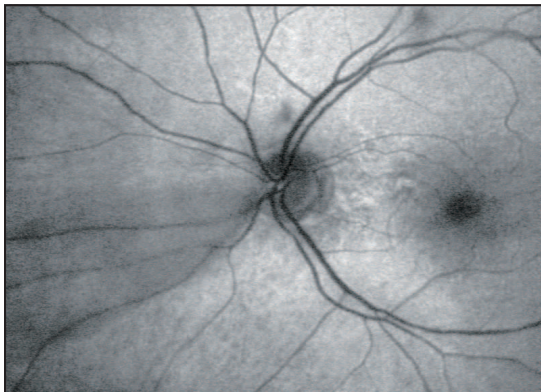


Fig. 4 FA

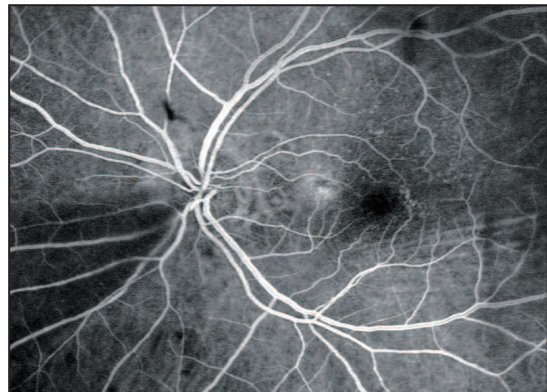
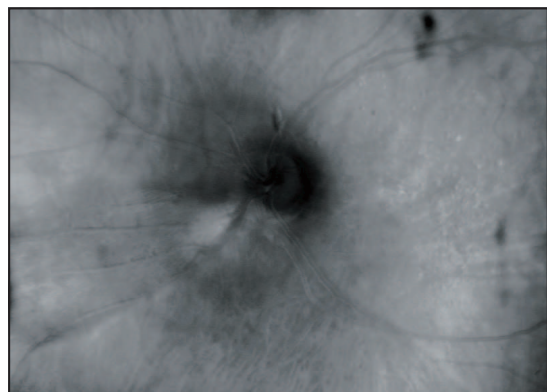


Fig. 5 ICGA



Fig. 6 Retromode



17. Melanoma-associated exudative retinal detachment

51-year-old woman, BCVA (OS) = 0.2

Colour fundus photography shows a grey tumour mass elevating the retina in the inferior quadrant (Fig. 1). Spectral OCT demonstrates foveal detachment along with small undulations of the temporal macular surface (Fig. 2). Autofluorescence signal is diminished in the area of involved retinal pigment epithelium (Fig. 3). Fluorescein angiography documents spotted choroidal hyperfluorescence at the site of the tumour (Fig. 4). On ICGA, the mass of the melanoma masks choroidal vessels (Fig. 5). The retromode views the extent of retinal detachment (Fig. 6).

Fig. 1 Colour fundus photography

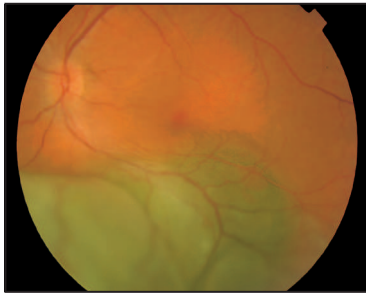


Fig. 2 SOCT

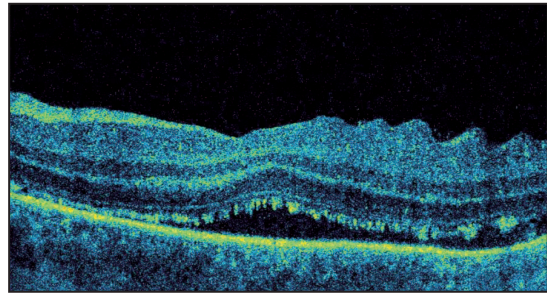


Fig. 3 Autofluorescence

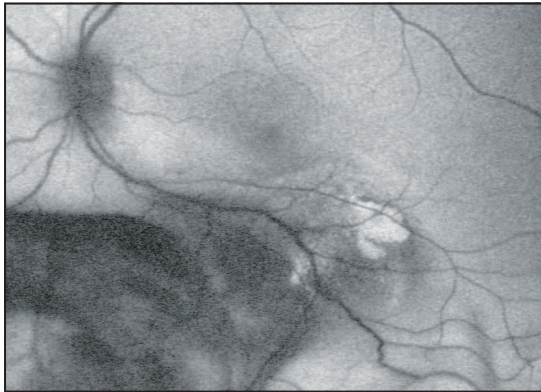


Fig. 4 FA

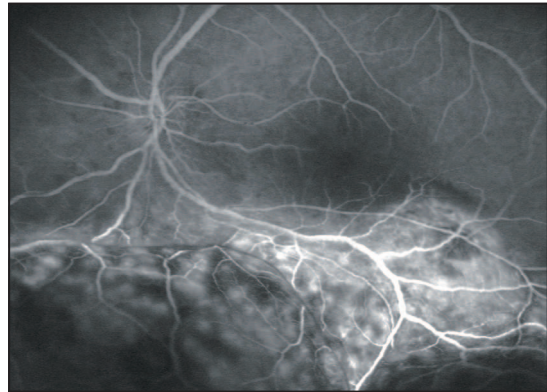


Fig. 5 ICGA

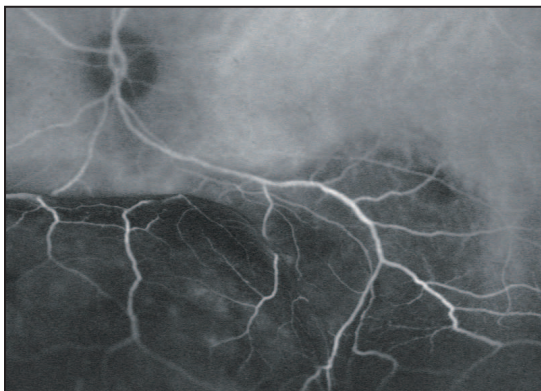
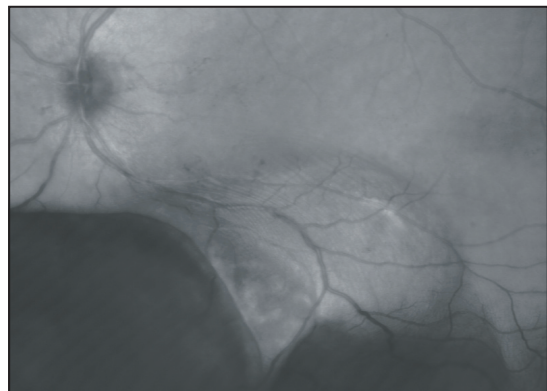


Fig. 6 Retromode



18. Choroidal nevus

52-year-old woman, BCVA (OD) = 1.0

Colour fundus photography shows flat slate-grey lesion situated one disc diameter temporal to the fovea (Fig. 1). Spectral OCT demonstrates a choroidal nevus with an intact sensory retina (Fig. 2). Autofluorescence image depicts the mild decrease of fluorescence signal over the lesion (Fig. 3). Fluorescein angiography and ICGA reveal an oval area of hypofluorescence at the site of the lesion due to a blockage of the choroidal background fluorescence (Fig. 4, Fig. 5). Choroidal nevus is very smoothly detectable on a retromode image (Fig. 6).

Fig. 1 Colour fundus photography

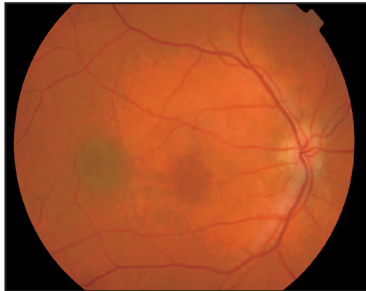


Fig. 2 SOCT

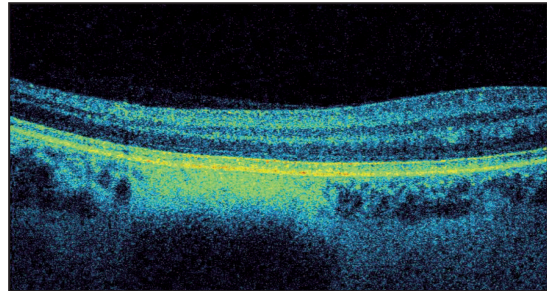


Fig. 3 Autofluorescence

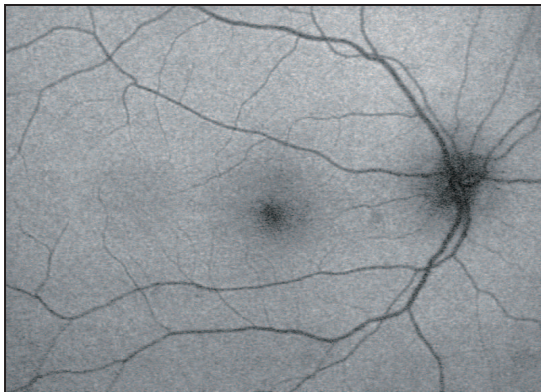


Fig. 4 FA

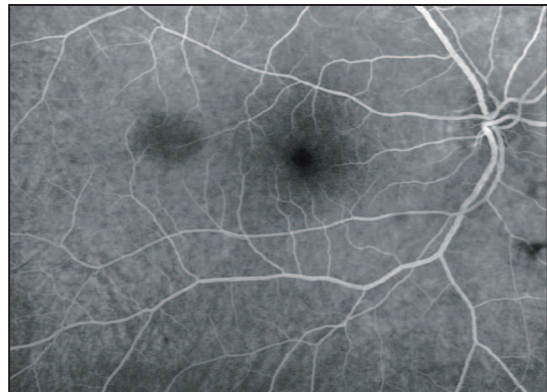
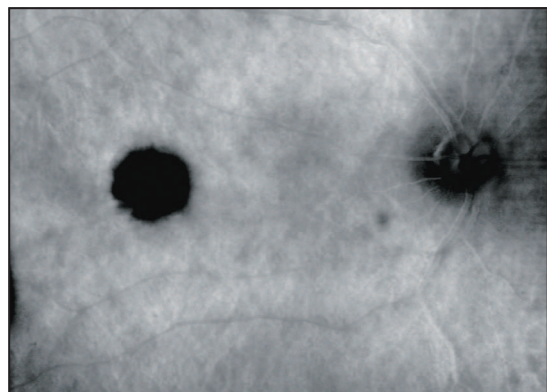


Fig. 5 ICGA



Fig. 6 Retromode



19. Chorioretinal atrophy

55-year-old woman, BCVA (OS) = 0.1

Colour fundus photography shows zones of chorioretinal atrophy that still contain large choroidal vessels. Some of the lesions are hyperpigmented (Fig. 1). Spectral OCT reveals focal areas of increased light penetration into the choroid alternating with retinal pigment epithelium clumping (Fig. 2). Fundus autofluorescence image depicts a patchy pattern of fluorescence with ranges of increased signal that may come from the sclera (Fig. 3). Fluorescein angiography and ICGA demonstrate atrophy of the choriocapillaries (Fig. 4, Fig. 5) while the retromode precisely shows the extent of pigmentary changes (Fig. 6).

Fig. 1 Colour fundus photography

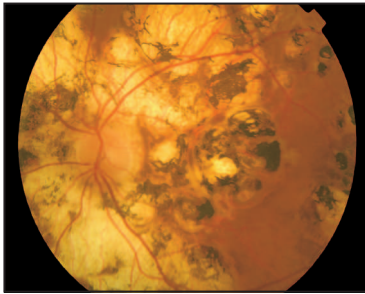


Fig. 2 SOCT

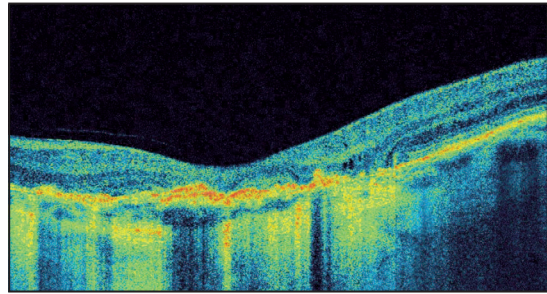


Fig. 3 Autofluorescence

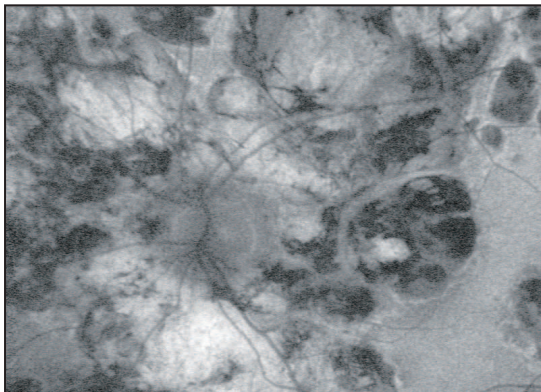


Fig. 4 FA

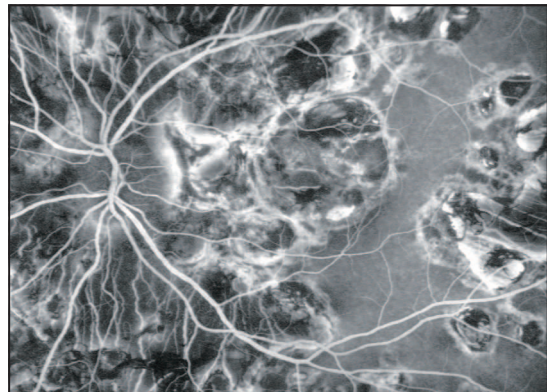


Fig. 5 ICGA

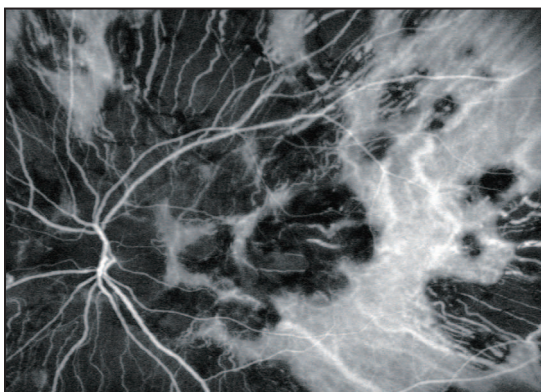
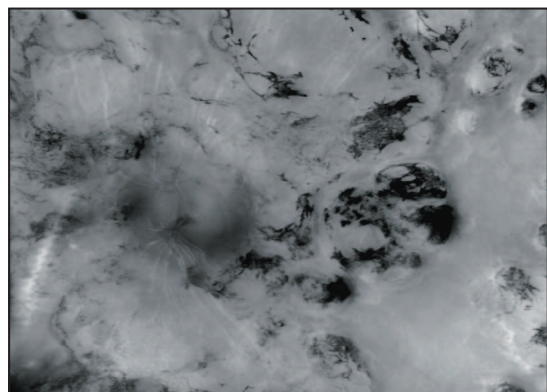


Fig. 6 Retromode



20. Choroidal Osteoma

53-year-old man, BCVA (OD) = 0.9

Colour fundus photography shows an amelanotic choroidal lesion of scalloped margins supernasal to the optic disc (Fig. 1). Spectral OCT demonstrates hyperreflective mass and retinal disorganization (Fig. 2). Fundus autofluorescence reveals a patchy, mildly declined fluorescence (Fig. 3). Fluorescein angiography shows circumscribed vascular anomalies in the region of the tumour (Fig. 4) while late-phase ICGA demonstrates a hot spot at the edge of otherwise hypofluorescent area (Fig. 5). The retromode visualizes the lesion itself in companion with the radiating pattern of retinal wrinkling (Fig. 6).

Fig. 1 Colour fundus photography

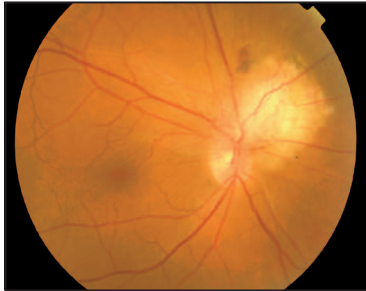


Fig. 2 SOCT

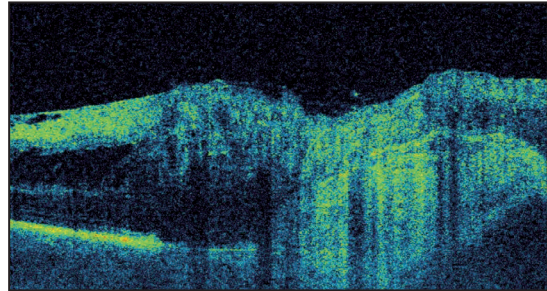


Fig. 3 Autofluorescence

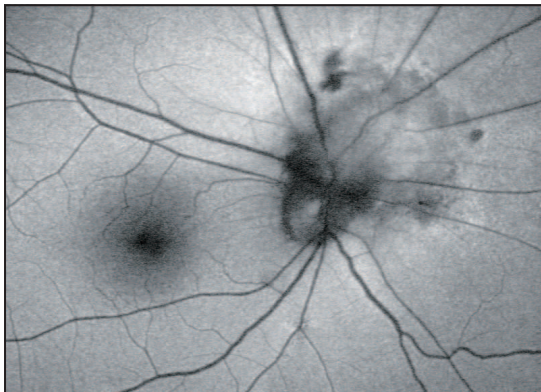


Fig. 4 FA

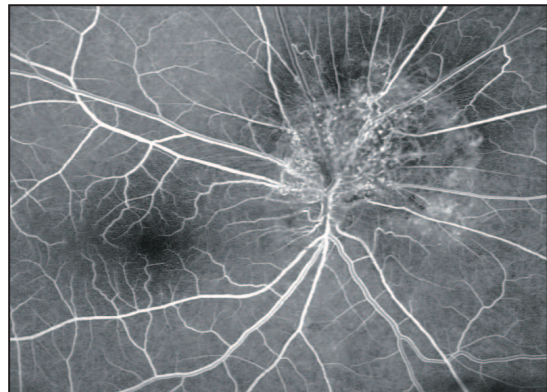


Fig. 5 ICGA

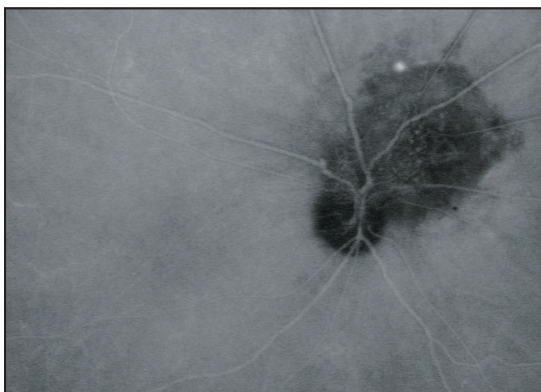
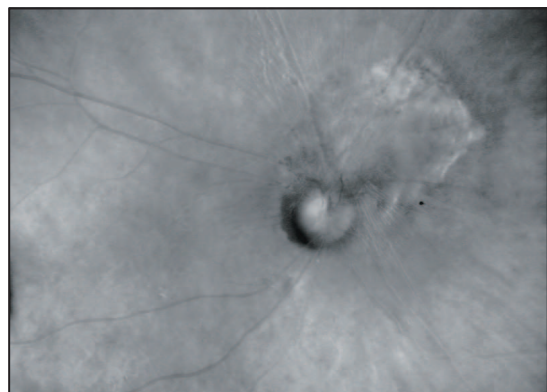


Fig. 6 Retromode



21. Chronic macular oedema associated with branch retinal vein occlusion and macroaneurysms

48-year-old man, BCVA (OS) = 0.4

Colour fundus photography shows macular oedema with lipid exudates (Fig. 1). Spectral OCT cross-sectional image reveals sub- and intraretinal fluid accumulation in the macula as well as a round macroaneurysm (white arrow) (Fig. 2). Exudates are characterized by low autofluorescence levels due to absorption phenomena. A crescent-shaped area with increased intensity can be observed in the fovea (yellow arrow) (Fig. 3). Fluorescein angiography discloses early filling of the macroaneurysms with late pooling. Accompanying fusiform dilations of the retinal arterioles can be registered (Fig. 4). Late-phase ICGA clearly delineates the round shape of macroaneurysms. Lipid exudates block the choroidal fluorescence (Fig. 5). The retromode shows the location of exudates and the presence of crescent-shaped area (yellow arrow) that most likely corresponds with a persistent retinal detachment seen on Spectral OCT (Fig. 6).

Fig. 1 Colour fundus photography



Fig. 2 SOCT

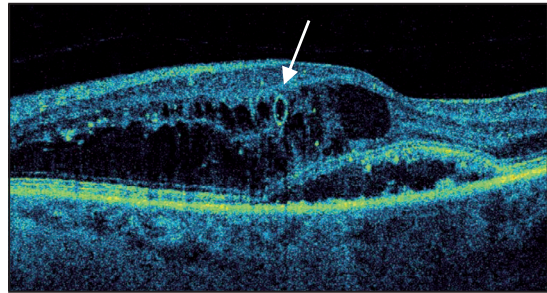


Fig. 3 Autofluorescence

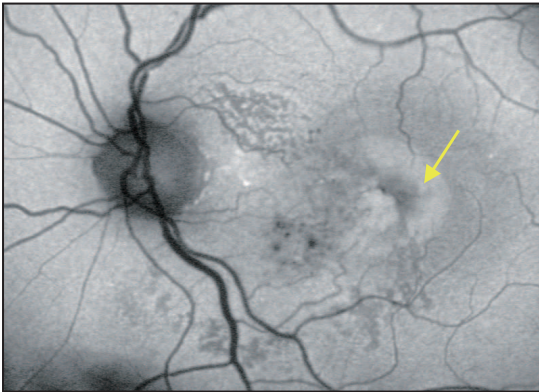


Fig. 4 FA

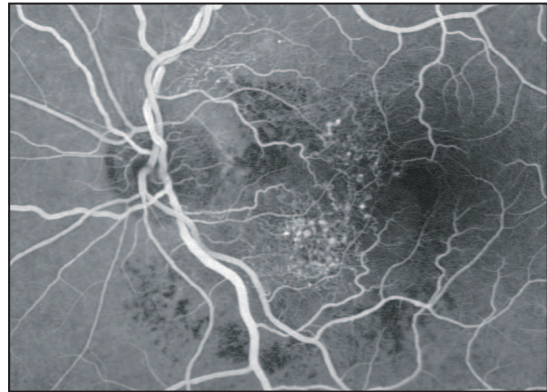


Fig. 5 ICGA

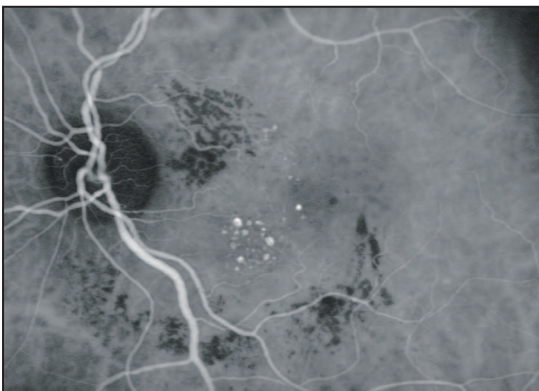
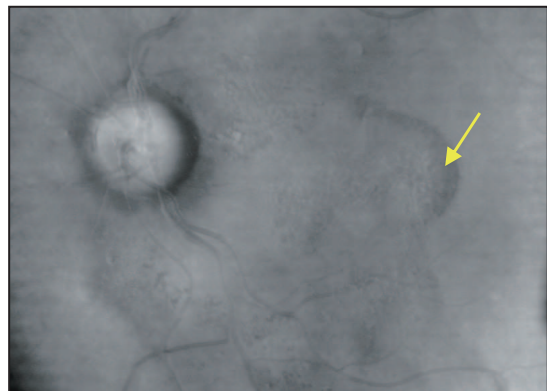


Fig. 6 Retromode



22. Cystoid macular oedema

52-year-old man, BCVA (OS) = 0.2

Colour fundus photography shows mild pigmentary disturbances in the fovea (Fig. 1). Spectral OCT reveals intraretinal fluid accumulation (Fig. 2). A slight increase in autofluorescence signal deriving from the fovea can be recorded (Fig. 3). Fluorescein angiography (FA) demonstrates a petaloid pattern of hyperfluorescence (Fig. 4). ICGA discloses the absence of choroidal neovascularization (Fig. 5). The retromode depicts the cystoid spaces in the fovea resembling those seen on FA (Fig. 6).

Fig. 1 Colour fundus photography

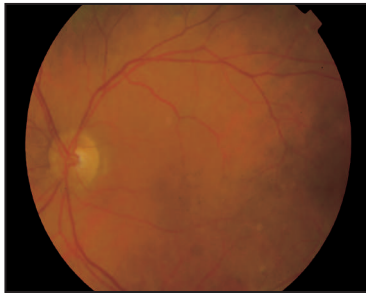


Fig. 2 SOCT

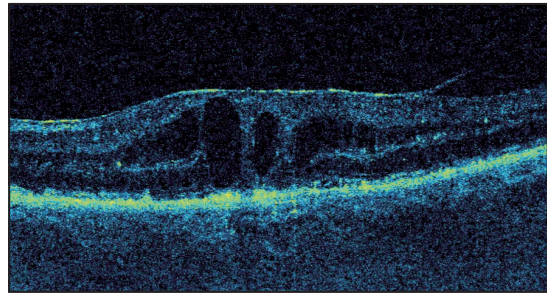


Fig. 3 Autofluorescence

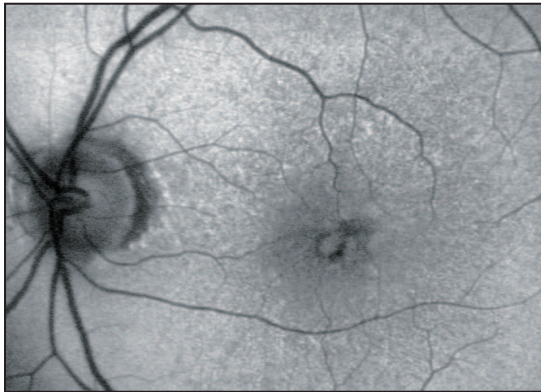


Fig. 4 FA

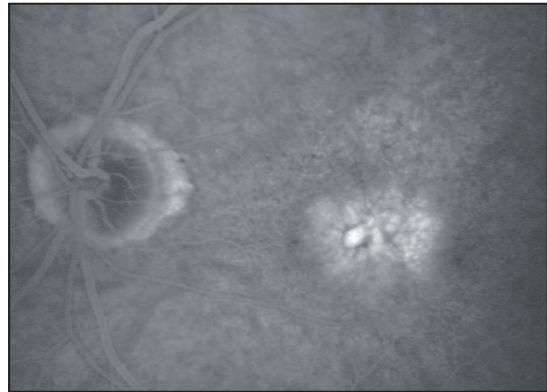


Fig. 5 ICGA

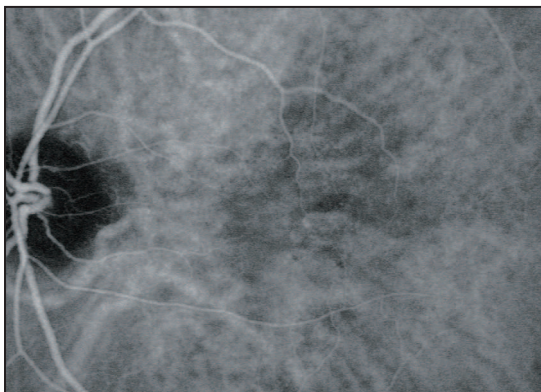


Fig. 6 Retromode



Image is Everything

Author: Bartosz L. Sikorski, MD



Dr. Bartosz Sikorski graduated in medicine from Nicolaus Copernicus University, Poland in 2002. During his schooling he also attended clinical rotations at the University of Oxford Medical School, Imperial College London and Harvard Medical School. Currently he is working at the Department of Ophthalmology at Nicolaus Copernicus University.

His major scientific interests are choroidal and retinal diseases. He has worked in the Medical Physic Group at Nicolaus Copernicus University, which first accomplished a high-speed Fourier-domain optical coherence tomography and pioneered the use of this technique in visualization of ocular tissues.

Dr. Sikorski is the author of 10 papers published in peer-reviewed journals. He is the recipient of the European Society of Ophthalmology's Educational Grant for Ophthalmologists-in-training.



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