TRITON
LITERATURE INDEX

TOPCON Healthcare

PREFACE

Topcon Healthcare's mission is to empower eyecare professionals by providing robotic diagnostic technologies, intelligent digital solutions, and an inclusive data connectivity platform to enhance patient care.

As an established global leader in OCT technology, we give clinicians the tools to see deeper, locate abnormalities more efficiently, and see them more clearly. Our current OCT portfolio is evidence of our commitment to continual innovation in pursuit of this vision.

Triton™, the first swept-source OCT system offering both posterior and anterior imaging, offers ultra fast, swept source imaging speed, clear, high resolution images of even for the deepest layers of the retina, and OCT angiography (OCTA).

Triton is used in clinical studies worldwide. This literature index provides an introduction to the breadth of research analysing and utilising Triton. For more information about Triton, please visit our website.

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ANALYSIS & IMAGE QUALITY

Macular choroidal thickness profile in a healthy population measured by swept-source optical coherence tomography.

Ruiz-Medrano J, Flores-Moreno I, Peña-García P, Montero JA, Duker JS, Ruiz-Moreno JM.

PMID: 24845638 DOI: 10.1167/iovs.14-13868

Determine choroidal thickness profile in a healthy population using swept-source optical coherence tomography (SS-OCT).

Optical Coherence Tomography Angiography of Miscellaneous Retinal Disease.

Pierro L, Battaglia Parodi M, Rabiolo A, Introini U, Querques G, Bandello F.

PMID: 27023316 DOI: 10.1159/000442810

Illustrate different clinical scenarios using swept-source optical coherence tomography angiography.

Image artefacts in swept-source optical coherence tomography angiography.

Ghasemi Falavarjani K, Al-Sheikh M, Akil H, Sadda SR.

PMID: 27439739 DOI: 10.1136/bjophthalmol-2016-309104

Describe optical coherence tomography angiography (OCTA) image artefacts in eyes with and without ocular pathologies.

Agreement Between Three Optical Coherence Tomography Devices to Assess the Insertion Distance and Thickness of Horizontal Rectus Muscles.

De-Pablo-Gómez-de-Liaño L, Fernández-Vigo JI, Ventura-Abreu N, García-Feijóo J, Fernández-Vigo JÁ, Gómez-de-Liaño R.

PMID: 28092396 DOI: 10.3928/01913913-20161102-04

Assess the agreement between two different spectral domain and one swept-source optical coherence tomography devices to measure the insertion distance and the thickness of the horizontal rectus muscles.

Influence of Retinal Pathology on the Reliability of Macular Thickness Measurement: A Comparison Between Optical Coherence Tomography Devices.

Bahrami B, Ewe SYP, Hong T, Zhu M, Ong G, Luo K, Chang A.

PMID: 28419397 DOI: 10.3928/23258160-20170329-06

Evaluate the repeatability, reliability, and comparability of macular thickness measurements between three optical coherence tomography machines in healthy eyes, eyes with diabetic macular edema, and eyes with neovascular age-related macular degeneration.

Quantitative Comparison of Swept-Source and Spectral-Domain OCT Angiography in Healthy Eyes.

Al-Sheikh M, Falavarjani KG, Tepelus TC, Sadda SR.

PMID: 28499049 DOI: 10.3928/23258160-20170428-04

Compare macular vessel density and foveal avascular zone area in healthy individuals using two different optical coherence tomography angiography devices.

Impact of image quality on OCT angiography based quantitative measurements.

Al-Sheikh M, Ghasemi Falavarjani K, Akil H, Sadda SR.

PMID: 28515959 DOI: 10.1186/s40942-017-0068-9

Impact of image quality on quantitative measurements and the frequency of segmentation error with optical coherence tomography angiography.

OCT-angiography: A qualitative and quantitative comparison of 4 OCT-A devices.

Munk MR, Giannakaki-Zimmermann H, Berger L, Huf W, Ebneter A, Wolf S, Zinkernagel MS.

PMID: 28489918 DOI: 10.1371/journal.pone.0177059

Compare the quality of four optical coherence tomography angiography modules.

Identification of imaging features that determine quality and repeatability of retinal capillary plexus density measurements in OCT angiography.

Fenner BJ, Tan GSW, Tan ACS, Yeo IYS, Wong TY, Cheung GCM.

PMID: 28814409 DOI: 10.1136/bjophthalmol-2017-310700

Identify the key features that influenced the repeatability of optical coherence tomography angiography measurements.

Reproducibility and differences in area of foveal avascular zone measured by three different optical coherence tomographic angiography instruments.

Shiihara H, Sakamoto T, Yamashita T, Kakiuchi N, Otsuka H, Terasaki H, Sonoda S.

PMID: 28851930 DOI: 10.1038/s41598-017-09255-5

Compare the area of the foveal avascular zone obtained by three optical coherence tomography angiography instruments.

Is the Optic Nerve Head Structure Impacted by a Diagnostic Lumbar Puncture in Humans?

Poli M, Denis P, Sellem E, Aho-Glélé LS, Bron AM.

PMID: 28777226 DOI: 10.1097/IJG.0000000000000752

Assess in vivo whether diagnostic lumbar puncture (LP) is followed by optic nerve head (ONH) and parapapillary anatomic changes in normal human eyes.

Comparisons Between Histology and Optical Coherence Tomography Angiography of the Periarterial Capillary-Free Zone.

Balaratnasingam C, An D, Sakurada Y, Lee CS, Lee AY, McAllister IL, Freund KB, Sarunic M, Yu DY.

PMID: 29470970 DOI: 10.1016/j.ajo.2018.02.007

Use the capillary-free zone along retinal arteries, a physiologic area of superficial avascularization, as an anatomic paradigm to investigate the reliability of optical coherence tomography angiography for visualizing the deep retinal circulation.

Imaging the Deep Choroidal Vasculature Using Spectral Domain and Swept Source Optical Coherence Tomography Angiography.

Diaz JD, Wang JC, Oellers P, Lains I, Sobrin L, Husain D, Miller JW, Vavvas DG, Miller JB.

PMID: 29930992 DOI: 10.1177/2474126418771805

Evaluate the deeper choroidal vasculature in eyes with various ocular disorders using spectral domain optical coherence tomography angiography and swept-source optical coherence tomography angiography.

Quantitative Comparison of Retinal Vascular Features in Optical Coherence Tomography Angiography Images From Three Different Devices.

Anegondi N, Kshirsagar A, Mochi TB, Sinha Roy A.

PMID: 30021035 DOI: 10.3928/23258160-20180628-04

Compare optical coherence tomography angiography images from three different devices.

Intra- and Interdevice Deviation of Optical Coherence Tomography Angiography.

Trachsler S, Baston AE, Menke M.

PMID: 30919402 DOI: 10.1055/a-0747-5333

Compare 4 optical coherence tomography-angiography devices for foveal avascular zone measurements in healthy subjects.

Reproducibility of macular and optic nerve head vessel density measurements by swept-source optical coherence tomography.

Fernández-Vigo JI, Kudsieh B, Macarro-Merino A, Arriola-Villalobos P, Martínez-de-la-Casa JM, García-Feijóo J, Fernández-Vigo JÁ.

PMID: 30857418 DOI: 10.1177/1120672119834472

Assess the reproducibility of swept-source optical coherence tomography angiography for macular and optic nerve head vessel density.

Comparison of the Lamina Cribrosa Measurements Obtained by Spectral-Domain and Swept-Source Optical Coherence Tomography.

Cakmak S, Altan C, Topcu H, Arici M, Pasaoglu I, Basarir B, Solmaz B.

PMID: 30963796 DOI: 10.1080/02713683.2019.1604971

Compare the lamina cribrosa measurements obtained by Spectral-Domain Optical Coherence Tomography and Swept-Source Optical Coherence Tomography.

Lamina cribrosa surface position in idiopathic intracranial hypertension with swept-source optical coherence tomography.

Pasaoglu I, Satana B, Altan C, Artunay O, Basarir B, Onmez FE, Inal A.

PMID: 31238417 DOI: 10.4103/ijo.IJO_1736_18

Compare the thickness and depth measurements of the lamina cribrosa obtained using a swept-source optical coherence tomography device in idiopathic intracranial hypertension patients and healthy subjects.

Quantitative Comparison of Microvascular Metrics On Three Optical Coherence Tomography Angiography Devices In Chorioretinal Disease.

Lu Y, Wang JC, Zeng R, Katz R, Vavvas DG, Miller JW, Miller JB.

PMID: 31749603 DOI: 10.2147/OPTH.S215322

Compare optical coherence tomography-angiography microvasculature metrics across different optical coherence tomography-angiography devices in chorioretinal diseases.

Comparison of the Repeatability of Macular Vascular Density Measurements Using Four Optical Coherence Tomography Angiography Systems.

Yang J, Yuan M, Wang E, Chen Y.

PMID: 31871782 DOI: 10.1155/2019/4372580

Compare the repeatability of optical coherence tomography angiography (OCT-A) measurements of macular vessel density using four OCT-A systems.

Ciliary muscle dimensions by swept-source optical coherence tomography and correlation study in a large population.

Fernández-Vigo JI, Shi H, Kudsieh B, Arriola-Villalobos P, De-Pablo Gómez-de-Liaño L, García-Feijóo J, Fernández-Vigo JÁ.

PMID: 31773907 DOI: 10.1111/aos.14304

Examine ciliary muscle dimensions in vivo by swept-source optical coherence tomography in a large healthy population, and assess the reproducibility of ciliary muscle measurements and correlations with different parameters.

Quantitative assessment of the effect of acute anaerobic exercise on macular perfusion via swept-source optical coherence tomography angiography in young football players.

Karakucuk Y, Okudan N, Bozkurt B, Belviranlı M, Sezer T, Gorçuyeva S.

PMID: 32062810 DOI: 10.1007/s10792-020-01303-w

Evaluate the effect of acute anaerobic exercise on macular perfusion measured by swept-source optical coherence tomography angiography in young football players.

Normative Database of Peripapillary Vessel Density Measured by Optical Coherence Tomography Angiography and Correlation Study.

Fernández-Vigo JI, Kudsieh B, Shi H, De-Pablo-Gómez-de-Liaño L, Serrano-Garcia I, Ruiz-Moreno JM, Martínez-de-la-Casa JM, García-Feijóo J, Fernández-Vigo JÁ.

PMID: 32188270 DOI: 10.1080/02713683.2020.1744164

Provide a normative data set of swept-source optical coherence tomography angiography peripapillary vessel density measurements and assess correlations with age, gender, disc area and axial length.

Determination of Referential Rates for Optical Coherence Tomography and Optical Coherence Tomography Angiography Flow Deficits in the Macular Choriocapillaris in Ophthalmologically Healthy Children.

Bakstytė V, Šniurevičiūtė L, Šimienė E, Skruodytė J, Janulevičienė I.

PMID: 32429361 DOI: 10.3390/medicina56050238

Determine referential rates of retinal nerve fiber layer thickness and flow deficits in the macular choriocapillaris in normal eyes of ophthalmologically healthy children.

Ethnic differences in normal retinal capillary density and foveal avascular zone measurements.

Giocanti-Aurégan A, Gazeau G, Hrarat L, Lévy V, Amari F, Bodaghi B, Fajnkuchen F.

PMID: 32601962 DOI: 10.1007/s10792-020-01488-0

Quantify retinal capillary density and foveal avascular zone area in healthy subjects according to their ethnicity, using optical coherence tomography angiography.

Different Effect of Media Opacity on Vessel Density Measured by Different Optical Coherence Tomography Angiography Algorithms.

Zhang J, Tang FY, Cheung CY, Chen H.

PMID: 32855866 DOI: 10.1167/tvst.9.8.19

Investigate the impact of a simulated model of media opacity on quantitative measurement of two optical coherence tomography angiography devices.

Relationship between vascular densities of choriocapillaris and the whole choroid using OCTA.

Bartol-Puyal FA, Isanta C, Calvo P, Ruiz-Moreno Ó, Pablo L.

PMID: 32621019 DOI: 10.1007/s10792-020-01500-7

Study the vascular density of choriocapillaris and the whole choroid using optical coherence tomography-angiography.

A quantitative comparison of four optical coherence tomography angiography devices in healthy eyes.

Lu Y, Wang JC, Cui Y, Zhu Y, Zeng R, Lu ES, Katz R, Husain D, Vavvas DG, Kim LA, Miller JW, Miller JB.

PMID: 32975683 DOI: 10.1007/s00417-020-04945-9

Quantitative comparison on the consistency of measurements across optical coherence tomography angiography devices.

Physiological changes in retinal layers thicknesses measured with swept source optical coherence tomography.

Viladés E, Pérez-Del Palomar A, Cegoñino J, Obis J, Satue M, Orduna E, Pablo LE, Ciprés M, Garcia-Martin E.

PMID: 33052946 DOI: 10.1371/journal.pone.0240441

Evaluate the physiological changes related with age of all retinal layers thickness measurements in macular and peripapillary areas in healthy eyes.

Reduction of Foveal Avascular Zone After Vitrectomy Demonstrated by Optical Coherence Tomography Angiography.

Petrou P Sr, Angelidis CD, Andreanos K, Kanakis M, Kandarakis S, Karamaounas A, Papakonstantinou E, Mamas N, Droutsas K, Georgalas I.

PMID: 33717769 DOI: 10.7759/cureus.13757

Investigate the effect of pars plana vitrectomy on foveal circulation, and in particular the foveal avascular zone, using optical coherence tomography angiography.

Comparison of Macular Thickness Measurements Using Swept-Source and Spectral-Domain Optical Coherence Tomography in Healthy and Diabetic Subjects.

Xiong K, Gong X, Li W, Yuting L, Meng J, Wang L, Wang W, Wenyong H.

PMID: 33879001 DOI: 10.1080/02713683.2021.1908566

Establish normative data for macular thickness in Chinese aged 30 to 80 years using the swept-source optical coherence tomography device.

Evaluation of the effect of high-intensity interval training on macular microcirculation via swept-source optical coherence tomography angiography in young football players.

Karaküçük Y, Okudan N, Bozkurt B, Belviranlı M, Tobakçal F.

PMID: 34427215 DOI: 10.4103/ijo.IJO_3079_20

Evaluate the effect of high intensity interval training on macular microcirculation, measured by swept-source optical coherence tomography angiography in young football players.

Optic Nerve Head Parameters in Saudi Male Young Adults Using Swept-source Optical Coherence Tomography.

Challa NK.

PMID: 37485458 DOI: 10.5005/jp-journals-10078-1405

Assess the optic nerve head parameters in normal male Saudi eyes using swept-source optical coherence tomography.

An AI model to estimate visual acuity based solely on cross-sectional OCT imaging of various diseases.

Inoda S, Takahashi H, Arai Y, Tampo H, Matsui Y, Kawashima H, Yanagi Y.

PMID: 37166519 DOI: 10.1007/s00417-023-06054-9

Develop an artificial intelligence model for estimating best-corrected visual acuity using horizontal and vertical optical coherence tomography scans of various retinal diseases and examine factors associated with its accuracy.

Relationship between choroidal thickness and vascular density in young healthy population.

Bartol-Puyal FA, Isanta C, Calvo P, Ruiz-Moreno Ó, Abadía B, Pablo L.

PMID: 37040832 DOI: 10.1016/j.oftale.2023.04.005

Analyze choroidal vascular density in healthy individuals and to compare it with choroidal thickness.

Ocular axial length influence on peripapillary retinal nerve fiber layer thickness measurement with optical coherence tomography.

Funes-Pérez E, Fernández-Hernández R, Rustullet-Olivé M, Mendieta-Rasos N, Saint-Gerons M, Matheu-Fabra A.

PMID: 37369323 DOI: 10.1016/j.oftale.2023.06.017

Assess the influence of ocular axial length on retinal nerve fiber layer thickness and on optic disc topographic parameters (optic disc area, rim area and cup volume) measured by optical coherence tomography, in healthy individuals.

REFRACTIVE ERRORS

Assessment of macular vascular plexus density using optical coherence tomography angiography in cases of strabismic amblyopia.

Pujari A, Chawla R, Mukhija R, Obedulla H, Phuljhele S, Saxena R, Sharma P, Kumar A.

PMID: 30900586 DOI: 10.4103/ijo.IJO_1069_18

Evaluate the superficial retinal vascular plexus density using optical coherence tomography angiography in cases of strabismic amblyopia.

Prevalence, risk factors and impact of posterior staphyloma diagnosed from wide-field optical coherence tomography in Singapore adults with high myopia.

Zheng F, Wong CW, Sabanayagam C, Cheung YB, Matsumura S, Chua J, Man REK, Ohno-Matsui K, Wong TY, Cheng CY, Tai ES, Lamoureux ELED, Schmetterer L, Kuo A, Hoang QV, Saw SM.

PMID: 32602252 DOI: 10.1111/aos.14527

Investigate the prevalence and risk factors of posterior staphyloma using wide-field optical coherence tomography in adults with high myopia in Singapore.

Retinal and Choroidal Changes in Children with Moderate-to-High Hyperopia.

Qian Y, Ma Y, Lin Q, Xiang Z, Qiang J, Xu Y, Zou H.

PMID: 34646578 DOI: 10.1155/2021/9971564

Investigate the characteristics of retinal nerve fiber layer thickness, ganglion cell layer thickness, and choroidal thickness in children with moderate-to-high hyperopia.

Choroidal Thickness Profiles and Associated Factors in Myopic Children.

Kobia-Acquah E, Flitcroft DI, Lingham G, Paudel N, Loughman J.

PMID: 36705715 DOI: 10.1097/OPX.0000000000001973

Investigate choroidal thickness profiles and associated factors in myopic children.

Changes in Choroidal Thickness and Retinal Activity with a Myopia Control Contact Lens.

Amorim-de-Sousa A, Pauné J, Silva-Leite S, Fernandes P, González-Méijome JM, Queirós A.

PMID: 37297813 DOI: 10.3390/jcm12113618

Investigate the effect of a contact lens intended for myopia control on the choroidal thickness and the retinal electrical response.

CORNEA

Repeatability of OCT Anterior Surface and Bowman's Layer Curvature and Aberrations in Normal and Keratoconic Eyes.

Matalia H, Chinnappaiah N, Chandapura R, Galiyugavaradhan S, Shetty R, Sinha Roy A.

PMID: 32267955 DOI: 10.3928/1081597X-20200121-02

Study the repeatability of anterior surface and Bowman's layer curvature in normal and keratoconic eyes using optical coherence tomography.

Changes in Limbal Optical Coherence Tomography Angiography Outcomes in Patients with Overnight Contact Lens Wear.

Bostanci Ceran B, Ozates S, Arifoglu HB, Tasindi E.

PMID: 34542423 DOI: 10.1097/ICL.0000000000000819

Evaluate the perilimbal vasculature of patients who wear contact lenses overnight with optical coherence tomography angiography and compare the results with healthy population.

The Role of Hi-Tech Devices in Assessment of Corneal Healing in Patients with Neurotrophic Keratopathy.

Inferrera L, Aragona E, Wylęgała A, Valastro A, Latino G, Postorino EI, Gargano R, Orzechowska-Wylęgała B, Wylęgała E, Roszkowska AM.

PMID: 35329927 DOI: 10.3390/jcm11061602

Prove the role of high-tech investigation in monitoring corneal morphological changes in patients with neurotrophic keratopathy using Keratograph 5M and anterior segment optical coherence tomography.

Clinical and instrumental assessment of the corneal healing in moderate and severe neurotrophic keratopathy treated with rh-NGF (Cenegermin).

Roszkowska AM, Inferrera L, Aragona E, Gargano R, Postorino EI, Aragona P.

PMID: 35473440 DOI: 10.1177/11206721221097584

Evaluate corneal healing in patients with moderate and severe neurotrophic keratitis treated with topical rh-NFG (Cenegermin).

Neurotrophic Keratopathy in Systemic Diseases: A Case Series on Patients Treated With rh-NGF.

Meduri A, Oliverio GW, Valastro A, Azzaro C, Camellin U, Franchina F, Inferrera L, Roszkowska A, Aragona P.

PMID: 35707524 DOI: 10.3389/fmed.2022.920688

Evaluate the prevalence, clinical ocular presentation and corneal healing in moderate and severe neurotrophic keratopathy caused by systemic diseases and treated with rh-NGF.

Evaluation of scleral thickness in patients with Fuchs endothelial dystrophy.

Korkmaz I, Degirmenci C, Selver OB, Palamar M.

PMID: 37178183 DOI: 10.1007/s00417-023-06107-z

Evaluate scleral thickness using anterior segment-optical coherence tomography in Fuchs endothelial dystrophy and compare the results with healthy individuals.

Anterior Segment Swept Source Optical Coherence Tomography and In Vivo Confocal Microscopy Findings in a Case With Bleb-Like Epithelial Basal Membrane Dystrophy.

Eker S, Oflaz AB, Bozkurt B.

PMID: 36728322 DOI: 10.1097/ICO.0000000000003241

Evaluate the anterior segment swept-source optical coherence tomography and in vivo confocal microscopy features in a patient with bleb-like epithelial basement membrane dystrophy.

RETINA

Retinopathy of Prematurity

Choroidal Thickness with Swept-Source Optical Coherence Tomography versus Foveal Morphology in Young Children with a History of Prematurity.

Bowl W, Bowl M, Schweinfurth S, Holve K, Andrassi-Darida M, Stieger K, Lorenz B.

PMID: 29414835 DOI: 10.1159/000484631

Comparison of choroidal thickness and foveal morphology as seen with swept-source optical coherence tomography in children with a history of treated or spontaneously regressed retinopathy of prematurity to assess the impact on best-corrected visual acuity.

OCT Angiography in Young Children with a History of Retinopathy of Prematurity.

Bowl W, Bowl M, Schweinfurth S, Holve K, Knobloch R, Stieger K, Andrassi-Darida M, Lorenz B.

PMID: 31047230 DOI: 10.1016/j.oret.2018.02.004

Describe the size and appearance of the foveal avascular zone in the superficial and deep plexus in young children with treated or spontaneously regressed retinopathy of prematurity, in comparison with age-matched controls and young adults, as seen with optical coherence tomography angiography, and to compare these parameters with foveal classic optical coherence tomography images and visual function.

Swept-source optical coherence tomography findings in premature children with a history of retinopathy of prematurity at 5 years of age.

Celik G, Gunay M, Kizilay O.

PMID: 33470276 DOI: 10.5935/0004-2749.20200090

Compare central foveal thickness, retinal nerve fiber layer thickness, and subfoveal choroidal thickness using swept-source optical coherence tomography in premature children with a history of treated retinopathy of prematurity (either with intravitreal bevacizumab or laser photocoagulation) or spontaneously regressed retinopathy of prematurity versus age-matched healthy children at the age of 5 years.

Diabetic Retinopathy

Relationship of intercapillary area with visual acuity in diabetes mellitus: an optical coherence tomography angiography study.

Tang F, Sun Z, Wong R, Lok J, Lam A, Tham CC, Chan CK, Mohamed S, Lam TC, Szeto SK, Ng DS, Cheung CY.

PMID: 29866787 DOI: 10.1136/bjophthalmol-2018-312010

Correlation of best-corrected visual acuity with intercapillary area measured from optical coherence tomography angiography in patients with diabetes, and to compare the strength of associations between best-corrected visual acuity with intercapillary area and other optical coherence tomography angiography metrics.

Objective Evaluation of Proliferative Diabetic Retinopathy Using OCT.

Schwartz R, Khalid H, Sivaprasad S, Nicholson L, Anikina E, Sullivan P, Patel PJ, Balaskas K, Keane PA.

PMID: 31708488 DOI: 10.1016/j.oret.2019.09.004

Routine use of optical coherence tomography and optical coherence tomography angiography for the objective diagnosis and monitoring of proliferative diabetic retinopathy.

Distribution of Choroidal Thinning in High Myopia, Diabetes Mellitus, and Aging: A Swept-Source OCT Study.

Bartol-Puyal FA, Isanta C, Ruiz-Moreno Ó, Abadia B, Calvo P, Pablo L.

PMID: 31511788 DOI: 10.1155/2019/3567813

Compare the macular choroidal thinning between young healthy, aged healthy, young high myopic, and aged type 2 diabetic patients using the Early Treatment Diabetic Retinopathy Study grid and three-dimensional maps.

Evaluation of microvascular changes in the perifoveal vascular network using optical coherence tomography angiography (OCTA) in type I diabetes mellitus: a large scale prospective trial.

Hernandez T, Oliva C, Gascón J, Sala-Puigdollers A, Figueras-Roca M, Vinagre I, Ortega E, Esmatjes E, Adan A.

PMID: 31752726 DOI: 10.1186/s12880-019-0391-8

Detection of paramacular areas of capillary non perfusion and/or enlargement of the foveal avascular zone, representing an excellent tool for assessment of diabetic retinopathy.

OCT Angiography Metrics Predict Progression of Diabetic Retinopathy and Development of Diabetic Macular Edema: A Prospective Study.

Sun Z, Tang F, Wong R, Lok J, Szeto SKH, Chan JCK, Chan CKM, Tham CC, Ng DS, Cheung CY.

PMID: 31358386 DOI: 10.1016/j.ophtha.2019.06.016

Prospectively determine the relationship of optical coherence tomography angiography metrics to diabetic retinopathy progression and development of diabetic macular edema.

Clinically relevant factors associated with quantitative optical coherence tomography angiography metrics in deep capillary plexus in patients with diabetes.

Tang FY, Chan EO, Sun Z, Wong R, Lok J, Szeto S, Chan JC, Lam A, Tham CC, Ng DS, Cheung CY.

PMID: 32025523 DOI: 10.1186/s40662-019-0173-y

Test clinically relevant factors associated with quantitative artifact-free deep capillary plexus (DCP) metrics in patients with diabetes mellitus (DM).

Quantitative and qualitative analysis of the three capillary plexuses and choriocapillaris in patients with type 1 and type 2 diabetes mellitus without clinical signs of diabetic retinopathy: a prospective pilot study.

Forte R, Haulani H, Jürgens I.

PMID: 31972804 DOI: 10.1097/IAE.0000000000002376

Evaluate the three retinal capillary plexuses and the choriocapillaris in patients with diabetes mellitus Type 1 and Type 2, without clinical signs of diabetic retinopathy.

Macular vessel density in diabetes and diabetic retinopathy with swept-source optical coherence tomography angiography.

Xie N, Tan Y, Liu S, Xie Y, Shuai S, Wang W, Huang W.

PMID: 32661699 DOI: 10.1007/s00417-020-04832-3

Assess the alterations of macular vessel density, as well as other factors, in diabetic patients using swept-source optical coherence tomography angiography in a large-scale sample from Chinese communities.

Swept-source optical coherence tomography angiography vitreo-retinal segmentation in proliferative diabetic retinopathy.

Papayannis A, Tsamis E, Stringa F, Iacono P, Battaglia Parodi M, Stanga PE.

PMID: 32722940 DOI: 10.1177/1120672120944028

Identify a new cortical vitreous segmentation protocol for non-invasive standardized investigation of neovascularisation with detection of regression of neovascularisation activity in Proliferative Diabetic Retinopathy.

Comparison of the Effect of Ranibizumab and Aflibercept on Changes in Macular Choroidal Thickness in Patients Treated for Diabetic Macular Edema.

Sarda V, Eymard P, Hrarat L, Fajnkuchen F, Giocanti-Aurégan A.

PMID: 32850142 DOI: 10.1155/2020/5708354

Assess the effect of intravitreal injections of ranibizumab and aflibercept on the choroidal thickness in patients with treatment-naive diabetic macular edema before and after monthly intravitreal injections.

Sub-clinical thickening of the fovea in diabetes and its relationship to glycaemic control: a study using swept-source optical coherence tomography.

Aitchison RT, Kennedy GJ, Shu X, Mansfield DC, Shahani U.

PMID: 32897439 DOI: 10.1007/s00417-020-04914-2

Measure foveal thickness and macular volume with swept-source optical coherence tomography in diabetic individuals without cystoid macular edema, and in non-diabetic individuals, and relate these measures to participants' glycemic control.

Detection rate of diabetic macular microaneurysms comparing dye-based angiography and optical coherence tomography angiography.

Stattin M, Haas AM, Ahmed D, Stolba U, Graf A, Krepler K, Ansari-Shahrezaei S.

PMID: 33005009 DOI: 10.1038/s41598-020-73516-z

Investigated patients with diabetic maculopathy by fluorescein/indocyanine green angiography and by swept-source optical coherence tomography angiography to identify clinically relevant microaneurysms.

Association of macular perfusion status with microvascular parameters up to the far periphery in diabetic retinopathy using multimodal imaging.

Hajdu D, Sedova A, Datlinger F, Hafner J, Steiner I, Kriechbaum K, Scholda C, Sacu S, Schmidt-Erfurth U, Pollreisz A.

PMID: 33292856 DOI: 10.1186/s40942-020-00253-w

Investigate a possible association between macular perfusion status and retinal ischemia and leakage up to far peripheral retinal areas in eyes with early to advanced stages of diabetic retinopathy.

Optical Coherence Tomography Predictors of Favorable Functional Response in Naïve Diabetic Macular Edema Eyes Treated with Dexamethasone Implants as a First-Line Agent.

Meduri A, Oliverio GW, Trombetta L, Giordano M, Inferrera L, Trombetta CJ.

PMID: 33833870 DOI: 10.1155/2021/6639418

Evaluate efficacy and safety of intravitreal dexamethasone 0.7 mg implant in treatment-naïve DME patients and to assess the utility of OCT structural biomarkers as predictors of functional response after treatment.

Comparison of macular thickness measurements using swept-source and spectral-domain optical coherence tomography in healthy and diabetic subjects.

Xiong K, Gong X, Li W, Yuting L, Meng J, Wang L, Wang W, Wenyong H.

PMID: 33879001 DOI: 10.1080/02713683.2021.1908566

Establish normative data for macular thickness in Chinese aged 30 to 80 years using the swept-source optical coherence tomography (SS-OCT) device.

Macro and microangiopathy related to retinopathy and choroidopathy in type 2 diabetes.

de Asís Bartol-Puyal F, Isanta C, Calvo P, Abadía B, Ruiz-Moreno Ó, Pablo L.

PMID: 34369186 DOI: 10.1177/11206721211037129

Describe the relationship between diabetic retinopathy and choroidal thickness, and systemic macro and microangiopathy in patients with type 2 diabetes.

Comparison of choroidal thickness in eyes of diabetic patients with eyes of healthy individuals using optical coherence tomography in a tertiary care hospital.

Hassan H, Cheema A, Tahir MA, Nawaz HN.

PMID: 35035435 DOI: 10.12669/pjms.38.1.4443

Compare the choroidal thickness in eyes of diabetic patients with eyes of age matched controls using optical coherence tomography in a tertiary care hospital.

The utility of wide-field optical coherence tomography angiography in diagnosis and monitoring of proliferative diabetic retinopathy in pregnancy.

Wright PH, Khalid H, Keane PA.

PMID: 35112021 DOI: 10.1016/j.ajoc.2022.101280

Wide-field optical coherence tomography angiography potentially offers a safer, faster and equally effective alternative method for diagnosis and monitoring of diabetic retinopathy in pregnant patients.

Correlation of photoreceptor integrity with retinal vessel density and choriocapillaris in eyes with diabetic retinopathy.

Kim JT, Park EJ.

PMID: 34743130 DOI: 10.1097/IAE.0000000000003343

Investigate the correlation of foveal photoreceptor integrity with the vessel density (VD) of the retina and choriocapillaris using swept-source optical coherence tomography angiography in eyes with diabetic retinopathy.

Macular Choroidal Thickness and the Risk of Referable Diabetic Retinopathy in Type 2 Diabetes: A 2-Year Longitudinal Study.

Wang W, Li L, Wang J, Chen Y, Kun X, Gong X, Wei D, Wang D, Liang X, Liu H, Huang W.

PMID: 35420642 DOI: 10.1167/iovs.63.4.9

Evaluate the associations between choroidal thickness and the 2-year incidence of referable diabetic retinopathy.

Automated and ImageJ thresholding algorithm-based analysis of macular vessel density in diabetic patients.

Kumawat D, Chawla R, Shah P, Sharma A, Sachan A, Pandey V.

PMID: 35647980 DOI: 10.4103/ijo.IJO_74_22

Assess the macular vessel density on optical coherence tomography angiography using proprietary software (automated) and image processing software (manual) in diabetic patients.

Flow and geometrical alterations in retinal microvasculature correlated with the occurrence of diabetic retinopathy: evidence from a longitudinal study.

Wang W, Chen Y, Kun X, Gong X, Liu H, Wei D, Wang D, Liang X, Huang W.

PMID: 35502958 DOI: 10.1097/IAE.0000000000003518

Assess the relationship between flow and geometric parameters in optical coherence tomography angiography images and the risk of incident diabetic retinopathy (DR).

Longitudinal Changes of Parafoveal Vessel Density in Diabetic Patients without Clinical Retinopathy Using Optical Coherence Tomography Angiography.

Wang D, Guo X, Wang W, Xiong K, Yuan M, Gong X, Li Y, Liang X, Huang Z, Zheng S, Huang W, Zuo C.

PMID: 37326958 DOI: 10.1080/02713683.2023.2227363

Identify the rate of parafoveal vessel density changes associated with the progression from non-diabetic retinopathy to early stages of diabetic retinopathy over a year.

Neovascular Age-Related Macular Degeneration

Detection of treatment-naive choroidal neovascularization in age-related macular degeneration by swept source optical coherence tomography angiography.

Ahmed D, Stattin M, Graf A, Forster J, Glittenberg C, Krebs I, Ansari-Shahrezaei S.

PMID: 28902095 DOI: 10.1097/IAE.0000000000001832

Compare the detection rate of choroidal neovascularization in treatment-naive neovascular age-related macular degeneration by swept-source optical coherence tomography angiography working at 1,050 nm wavelength versus fluorescence angiography.

Quantification of Optical Coherence Tomography Angiography in Age and Age-Related Macular Degeneration Using Vessel Density Analysis.

Vaghefi E, Hill S, Kersten HM, Squirrell D.

PMID: 32205475 DOI: 10.1097/APO.0000000000000278

Determine whether vessel density as measured by optical coherence tomography angiography provided insights into retinal and choriocapillaris vascular changes with aging and intermediate dry age-related macular degeneration.

Vitrectomy with the inverted internal limiting membrane flap technique in eyes with full-thickness macular hole and dry age-related macular degeneration.

Michalewska Z, Nawrocki J.

PMID: 32345051 DOI: 10.1177/1120672120921376

Present effects of the inverted internal limiting membrane flap technique in full-thickness macular holes coexisting with dry age-related macular degeneration.

Effects of subthreshold nanosecond laser therapy in age-related macular degeneration using artificial intelligence (STAR-AI Study).

Hanna V, Oakley J, Russakoff D, Choudhry N.

PMID: 33914797 DOI: 10.1371/journal.pone.0250609

Investigate changes in retinal thickness, drusen volume, and visual acuity following subthreshold nanosecond laser treatment in patients with age-related macular degeneration.

Optical coherence tomography angiography features of macular neovascularization in wet age-related macular degeneration: A cross-sectional study.

Ahmed M, Syrine BM, Nadia BA, Anis M, Karim Z, Mohamed G, Hachemi M, Fethi K, Leila K.

PMID: 34540215 DOI: 10.1016/j.amsu.2021.102826

Determine the diagnosis accuracy, describe the morphological features, and assess the clinical activity of macular neovascularization in wet age-related macular degeneration using optical coherence tomography angiography.

Faricimab in neovascular AMD: first report of real-world outcomes in an independent retina clinic.

Stanga PE, Valentín-Bravo FJ, Stanga SEF, Reinstein UI, Pastor-Idoate S, Downes SM.

PMID: 36959312 DOI: 10.1038/s41433-023-02505-z

Assess short-term real-world outcomes in neovascular age-related macular degeneration treated with novel faricimab.

Macular Disorders

Management of a case of myopic foveoschisis with phakic intraocular lens (pIOL) in situ: intraoperative challenges.

Kumar A, Mehta A, Ravani RD, Kakkar P.

PMID: 28432184 DOI: 10.1136/bcr-2016-218224

Describe the case of a 30-year-old man with pathological myopia with a phakic intraocular lens in situ having complaints of metamorphopsia in the left eye with documented myopic foveoschisis on swept-source optical coherence tomography.

Macular Bruch's membrane defect and dome-shaped macula in high myopia.

Fang Y, Jonas JB, Yokoi T, Cao K, Shinohara K, Ohno-Matsui K.

PMID: 28570624 DOI: 10.1371/journal.pone.0178998

Examine an association between macular Bruch's membrane defects and a dome-shaped appearance of the macula.

Duration of prone positioning after macular hole surgery determined by swept-source optical coherence tomography.

Sano M, Inoue M, Itoh Y, Kita Y, Hirota K, Koto T, Hirakata A.

PMID: 27849651 DOI: 10.1097/IAE.0000000000001394

Compare the closure rate of macular hole closure and duration of the prone positioning after macular hole surgery with two protocols for halting the prone positioning.

Optical Coherence Tomography Angiography of Retinal Cavernous Hemangioma.

Pierro L, Marchese A, Gagliardi M, Bandello F.

PMID: 28810047 DOI: 10.3928/23258160-20170802-14

Report a case of retinal cavernous hemangioma on the margin of the optic disc in the right eye of a 61-year-old asymptomatic female.

Macular Choroidal Thickening in Keratoconus Patients: Swept-Source Optical Coherence Tomography Study.

Gutierrez-Bonet R, Ruiz-Medrano J, Peña-Garcia P, Catanese M, Sadeghi Y, Hashemi K, Gabison E, Ruiz-Moreno JM.

PMID: 29888113 DOI: 10.1167/tvst.7.3.15

Determine the choroidal thickness profile in keratoconus patients using swept-source optical coherence tomography (SS-OCT).

Optical Coherence Tomography Angiography in Extensive Macular Atrophy with Pseudodrusen-Like Appearance.

Rajabian F, Arrigo A, Bordato A, Mercuri S, Bandello F, Battaglia Parodi M.

PMID: 32704422 DOI: 10.1167/tvst.9.3.2

Analyses of quantitative features of optical coherence tomography angiography in patients affected by extensive macular atrophy with pseudodrusen-like appearance.

Factors associated with serous retinal detachment in highly myopic eyes with inferior posterior staphyloma.

Garcia-Ben A, González Gómez A, García Basterra I, García-Campos JM.

PMID: 32561184 DOI: 10.1016/j.oftal.2020.05.013

Investigate the factors associated with persistent serous retinal detachment in highly myopic eyes with inferior posterior staphyloma.

Identification of microvascular and morphological alterations in eyes with central retinal nonperfusion.

Hajdu D, Told R, Angeli O, Weigert G, Pollreisz A, Schmidt-Erfurth U, Sacu S.

PMID: 33170872 DOI: 10.1371/journal.pone.0241753

Evaluate the characteristics and morphological alterations in central retinal ischemia caused by diabetic retinopathy or retinal vein occlusion as seen in optical coherence tomography angiography and their relationship to visual acuity.

Multimodal imaging of eyes with metamorphopsia after vitrectomy for rhegmatogenous retinal detachment.

Kumar V, Naik A, Kumawat D, Sundar D, Chawla R, Chandra P, Kumar A.

PMID: 34571630 DOI: 10.4103/ijo.IJO_3658_20

Assess the retinal features in eyes with postoperative metamorphopsia following rhegmatogenous retinal detachment repair using multimodal imaging.

Topographic patterns of retinal edema in eyes with branch retinal vein occlusion and their association with macular edema recurrence.

Park HM, Kim YH, Lee BR, Ahn SJ.

PMID: 34853402 DOI: 10.1038/s41598-021-02726-w

Evaluate the topographic pattern of retinal edema in eyes with macular edema secondary to branch retinal vein occlusion using a widefield retinal thickness map of optical coherence tomography and its association with macular edema recurrence.

The Role of ACE, ACE2, and AGTR2 Polymorphisms in COVID-19 Severity and the Presence of COVID-19-Related Retinopathy.

Jevnikar K, Lapajne L, Petrovič D, Meglič A, Logar M, Vidovič Valentinčič N, Globočnik Petrovič M, Cilenšek I, Mekjavić PJ.

PMID: 35885894 DOI: 10.3390/genes13071111

Determine the role of selected polymorphisms of genes in the RAAS pathway in COVID-19 severity and their association with the presence of COVID-19 retinopathy.

Macular Ganglion Cell Complex and Peripapillary Retinal Nerve Fiber Layer Thicknesses in Hydroxychloroquine Retinopathy.

Kim KE, Kim YH, Kim J, Ahn SJ.

PMID: 35963445 DOI: 10.1016/j.ajo.2022.07.028

Investigate macular ganglion cell complex and peripapillary retinal nerve fiber layer thicknesses in patients with hydroxychloroquine retinopathy of differing severity.

The Comparison of Retinal Microvascular Findings in Acute COVID-19 and 1-Year after Hospital Discharge Assessed with Multimodal Imaging-A Prospective Longitudinal Cohort Study.

Jevnikar K, Meglič A, Lapajne L, Logar M, Vidovič Valentinčič N, Globočnik Petrovič M, Jaki Mekjavić P.

PMID: 36835445 DOI: 10.3390/ijms24044032

Quantify possible long-term impairment of the retinal microcirculation and microvasculature by reassessing a cohort of patients with acute COVID-19 without other known comorbidities one year after their discharge from the hospital.

Inter- and intra-observer agreement in the measurement of macular holes by optical coherence tomography.

Gil-Hernández I, Vidal-Oliver L, Alarcón-Correcher F, López-Montero A, García-Ibor F, Ruiz-Del Río N, Duch-Samper A.

PMID: 37595795 DOI: 10.1016/j.oftale.2023.07.003

Find out whether there is intra-individual and inter-individual variability in full-thickness macular hole of the neurosensory retina measurements.

CHOROIDAL DISORDERS

Optical Coherence Tomography Angiography Study of Choroidal Neovascularization Associated With Focal Choroidal Excavation.

Chawla R, Mittal K, Vohra R.

PMID: 27759866 DOI: 10.3928/23258160-20161004-13

Report the use of optical coherence tomography angiography to localize, characterize, and confirm the presence of a choroidal neovascular membrane in a patient of focal choroidal excavation with recent-onset metamorphopsia and visual blurring.

Analysis and follow-up of type 1 choroidal neovascularisation with optical coherence tomography-angiography after antiangiogenic treatment.

Torrecillas-Picazo R, Cerdà-Ibáñez M, Almor Palacios I, Hervás Hernandis JM, Ramón-Cosín R, Ruiz Del Rio N, Duch-Samper A.

PMID: 28189273 DOI: 10.1016/j.oftal.2016.12.005

Describe the characteristics of type 1 choroidal neovascularisation in age-related macular degeneration using two different optical coherence tomography angiography devices sequentially during a standard protocol of three intravitreal injections of an anti-vascular endothelial growth factor.

Choroidal excavation in choroidal osteoma complicated by choroidal neovascularization.

Pierro L, Marchese A, Gagliardi M, Introini U, Battaglia Parodi M, Casalino G, Bandello F.

PMID: 28731055 DOI: 10.1038/eye.2017.136

Describe multimodal imaging features of choroidal osteoma complicated by choroidal neovascularization and focal choroidal excavation.

Optical coherence tomography angiography features of choroidal hemangioma.

Konana VK, Shanmugam PM, Ramanjulu R, Mishra KCD, Sagar P.

PMID: 29582828 DOI: 10.4103/ijo.IJO_955_17

Observational case series of four cases of choroidal hemangioma optical coherence tomography angiography at the level of large choroidal vessels demonstrated peculiar vascular pattern in all four eyes.

Swept source optical coherence tomography analysis of choroidal thickness in macular telangiectasia type 2: a case-control study.

Kumar V, Kumawat D, Kumar P.

PMID: 30560414 DOI: 10.1007/s00417-018-04215-9

Assess the subfoveal choroidal thickness in patients with MacTel type 2 and compare it with healthy controls using swept-source optical coherence tomography.

Response to anti-vascular endothelial growth factor of abnormal retinal vascular net in para foveal telangiectasia group II images on optical coherence tomography-angiography.

Saoji K, Pathengay A, Chhablani J, Panchal B, Doshi S, Saldanha M.

PMID: 30574903 DOI: 10.4103/ijo.IJO_374_18

Identify optical coherence tomography-angiography findings to predict treatment response during anti-vascular endothelial growth factor therapy in eyes with para foveal telangiectasia group II.

Clinical evaluation of neovascular and non-neovascular chronic central serous chorioretinopathy (CSC) diagnosed by swept source optical coherence tomography angiography (SS OCTA).

Sulzbacher F, Schütze C, Burgmüller M, Vécsei-Marlovits PV, Weingessel B.

PMID: 31037488 DOI: 10.1007/s00417-019-04297-z

Evaluate the clinical characteristics of eyes with chronic central serous chorioretinopathy based on swept-source optical coherence tomography angiography.

Intra and inter-rater agreement of inflammatory choroidal neovascular membrane measurements using optical coherence tomography angiography.

Leal I, Tan SZ, Aslam T, Steeples LR, Jones NP, Chhabra R.

PMID: 31858223 DOI: 10.1007/s00417-019-04538-1

Determine intra- and inter-rater agreement of inflammatory choroidal neovascular membrane manual measurements obtained with optical coherence tomography angiography.

Choroidal neovascular area and vessel density comparison between two swept-source optical coherence tomography angiography devices.

Ohayon A, Sacconi R, Semoun O, Corbelli E, Souied EH, Querques G.

PMID: 30589664 DOI: 10.1097/IAE.0000000000002430

Compare choroidal neovascularization area and vessel density measurements between two different swept-source optical coherence tomography angiography devices.

Comparison of macular neovascularization lesion size by the use of Spectral-Domain Optical Coherence Tomography Angiography and Swept-Source Optical Coherence Tomography Angiography versus Indocyanine Green Angiography.

Haas AM, Ahmed D, Stattin M, Graf A, Krepler K, Ansari-Shahrezaei S.

PMID: 32833284 DOI: 10.1111/aos.14572

Compare the lesion sizes of macular neovascularization imaged with spectral-domain and swept-source optical coherence tomography angiography as well as indocyanine green angiography.

Swept-source optical coherence tomography angiography findings in choroidal and retinal tumors.

Gündüz AK, Mirzayev I, Kasimoglu R, Özalp Ateş FS.

PMID: 32895500 DOI: 10.1038/s41433-020-01151-z

Report the swept-source optical coherence tomography angiography findings in choroidal and retinal tumors.

Swept Source-Optical Coherence Tomography Angiography for Management of Secondary Choroidal Neovascularization in Punctate Inner Choroidopathy.

Stattin M, Forster J, Ahmed D, Krepler K, Ansari-Shahrezaei S.

PMID: 33976688 DOI: 10.1159/000511669

Demonstrate the diagnostic and therapeutic feasibility of swept-source optical coherence tomography angiography by picturing neovascular changes secondary to a rare white dot syndrome following long-term intravitreal ranibizumab.

Relationship between myopic choroidal neovascularization activity and perforating scleral vessels in high myopia.

Ruiz-Medrano J, Almazan-Alonso E, Flores-Moreno I, Puertas M, García-Zamora M, Ruiz-Moreno JM.

PMID: 34438439 DOI: 10.1097/IAE.0000000000003290

Study perforating scleral vessels in patients with high myopia using swept-source optical coherence tomography and to determine their relationship with myopic choroidal neovascularization and its activity.

Choroidal vascularity index versus choroidal thickness as biomarkers of acute central serous chorioretinopathy.

Ruiz-Moreno JM, Gutierrez-Bonet R, Chandra A, Vupparaboina KK, Chhablani J, Ruiz-Medrano J.

PMID: 36854282 DOI: 10.1159/000529474

Analyze the Choroidal Vascularity Index versus Choroidal Thickness as biomarkers in acute Central Serous Chorioretinopathy.

Assessment and role of artery-vein complex in myopic choroidal neovascularization using optical coherence tomography angiography.

Ruiz-Medrano J, Almazán-Alonso E, Puertas M, Flores-Moreno I, García-Zamora M, Kudsieh B, Ruiz-Moreno JM.

PMID: 37339326 DOI: 10.1097/IAE.0000000000003852

Analyze the presence of an artery-vein complex underneath myopic choroidal neovascularization and to determine its relationship with neovascular activity.

UVEITIS SPECTRUM DISORDERS

Optical Coherence Tomography Angiography: Employing a Novel Technique for Investigation in Vogt-Koyanagi-Harada Disease.

Giannakouras P, Andreanos K, Giavi B, Diagourtas A.

PMID: 28868031 DOI: 10.1159/000477611

Report a case of Vogt-Koyanagi-Harada disease and describe the imaging findings by means of optical coherence tomography angiography.

Retinal Microvascular Alterations in Patients with Quiescent Posterior and Panuveitis Using Optical Coherence Tomography Angiography.

Agarwal A, Bhatt S, Keshari S, Erckens RJ, Berendschot TTJM, Webers CAB, Agrawal R, Bansal R, Gupta V.

PMID: 34288798 DOI: 10.1080/09273948.2021.1954200

Quantify retinochoroidal vascular parameters using swept-source optical coherence tomography in quiescent posterior and panuveitis.

Semi-automated quantitative analysis of the middle limiting membrane in tubercular serpiginous-like choroiditis using swept-source optical coherence tomography.

Agarwal A, Kalra G, Agrawal R, Bansal R, Gupta V.

PMID: 34873214 DOI: 10.1038/s41598-021-02894-9

Analyze the longitudinal changes in the outer plexiform layer in patients with tubercular serpiginous-like choroiditis and compare it to the healthy control population.

GLAUCOMA

Anterior lamina cribrosa insertion in primary open-angle glaucoma patients and healthy subjects.

Lee KM, Kim TW, Weinreb RN, Lee EJ, Girard MJ, Mari JM.

PMID: 25531761 DOI: 10.1371/journal.pone.0114935

Determine using swept-source optical coherence tomography whether there are differences in the location of the anterior lamina cribrosa insertion in primary open-angle glaucoma patients and healthy subjects.

Retinal vessel density from optical coherence tomography angiography to differentiate early glaucoma, pre-perimetric glaucoma and normal eyes.

Akil H, Huang AS, Francis BA, Sadda SR, Chopra V.

PMID: 28152070 DOI: 10.1371/journal.pone.0170476

Evaluate optic nerve vascular density using swept-source optical coherence tomography angiography (OCTA) in patients with early primary open angle glaucoma, pre-perimetric glaucoma and normal eyes.

Qualitative analysis of repaired filtering blebs with anterior segment-optical coherence tomography.

Cerdà-Ibáñez M, Pérez-Torregrosa VT, Olate-Pérez A, Almor Palacios I, Gargallo-Benedicto A, Osorio-Alayo V, Barreiro Rego A, Duch-Samper A.

PMID: 28188019 DOI: 10.1016/j.oftal.2016.11.015

Qualitative analysis of filtering blebs after being surgically repaired due to late blebs leaks.

Swept-source OCT angiography imaging of the macular capillary network in glaucoma.

Akil H, Chopra V, Al-Sheikh M, Ghasemi Falavarjani K, Huang AS, Sadda SR, Francis BA.

PMID: 28794076 DOI: 10.1136/bjophthalmol-2016-309816

Evaluate the macular capillary network density of superficial and deep retinal layers by swept-source optical coherence tomography angiography (OCTA) in patients with primary open angle glaucoma and to compare the results with those of normal subjects.

Comparison of glaucoma-diagnostic ability between wide-field swept-source OCT retinal nerve fiber layer maps and spectral-domain OCT.

Lee WJ, Oh S, Kim YK, Jeoung JW, Park KH.

PMID: 29789659 DOI: 10.1038/s41433-018-0104-5

Compare the diagnostic ability of wide-field swept-source optical coherence tomography retinal nerve fiber layer maps with spectral-domain OCT maps for detection of preperimetric and early glaucoma.

Evaluation of Papillomacular Nerve Fiber Bundle Thickness in Glaucoma Patients with Visual Acuity Disturbance.

Takahashi N, Omodaka K, Pak K, Kikawa T, Kobayashi W, Akiba M, Nakazawa T.

PMID: 31880172 DOI: 10.1080/02713683.2019.1703006

Evaluating papillomacular nerve fiber bundle thickness in glaucoma patients, based on swept-source optical coherence tomography.

Ciliary muscle dimensions measured by swept-source optical coherence tomography in eyes with primary open-angle glaucoma and healthy eyes.

Kudsieh B, Fernández-Vigo JI, Shi H, De Pablo Gómez de Liaño L, Ruiz-Moreno JM, García-Feijóo J, Fernández-Vigo JÁ.

PMID: 32388672 DOI: 10.1007/s10792-020-01405-5

Compare in vivo swept-source optical coherence tomography measurements of the ciliary muscle in patients with primary open-angle glaucoma and healthy subjects and examine correlations between ciliary muscle dimensions and several covariates.

A software for quantification of vessel density in glaucoma: An OCT-Angiography study.

Miguel A, Legeai J, Silva B.

PMID: 33509651 DOI: 10.1016/j.jfo.2020.06.038

Assess the capillary vessel density in the peripapillary region of glaucoma patients in comparison to controls using automated software.

Macular pigment optical density change analysis in primary open-angle glaucoma and pseudoexfoliation glaucoma.

Zeki Fikret C, Ucgun NI.

PMID: 33759069 DOI: 10.1007/s10792-021-01784-3

Investigate whether macular pigment optical density has a diagnostic value by comparing macular pigment optical density and retinal nerve fiber layer, ganglion cell layer++ of patients with primary open-angle glaucoma and pseudoexfoliation glaucoma and normal individuals.

Association between Topographic Features of the Retinal Nerve Fiber Bundle and Good Visual Acuity in Patients with Glaucoma.

Takahashi N, Omodaka K, Kikawa T, Akiba M, Nakazawa T.

PMID: 33858282 DOI: 10.1080/02713683.2021.1912782

Identify specific areas of the papillomacular bundle in glaucoma patients that are strongly associated with visual acuity, based on en-face images derived from optical coherence topography wide scans.

Wide-field optical coherence tomography deviation map for early glaucoma detection.

Kim H, Park HM, Jeong HC, Moon SY, Cho H, Lim HW, Seong M, Park J, Lee WJ.

PMID: 34301610 DOI: 10.1136/bjophthalmol-2021-319509

Establish a wide-field optical coherence tomography deviation map obtained from swept-source OCT scans.

Spatial positional relationship between macular superficial vessel density and ganglion cell-inner plexiform layer thickness in primary angle closure glaucoma.

Lin Y, Ma D, Wang H, Chen S, Cai W, Zhang A, Zhang M.

PMID: 34392472 DOI: 10.1007/s10792-021-02005-7

Evaluate the spatial relationship between macular superficial vessel density and macular ganglion cell-inner plexiform layer thickness in primary angle-closure glaucoma, and to investigate diagnostic abilities of macular superficial vessel density and foveal avascular zone parameters.

Peripapillary vessel density measurement of quadrant and clock-hour sectors in primary angle closure glaucoma using optical coherence tomography angiography.

Lin Y, Chen S, Zhang M.

PMID: 34503457 DOI: 10.1186/s12886-021-02093-0

Investigate diagnostic ability of peripapillary vessel density of primary angle closure glaucoma (PACG) eyes in quadrant and clock-hour sectors by optical coherence tomography angiography (OCTA).

Comparison of optical coherence tomography angiography metrics in primary angle-closure glaucoma and normal-tension glaucoma.

Shen R, Wang YM, Cheung CY, Chan PP, Tham CC.

PMID: 34848773 DOI: 10.1038/s41598-021-02296-x

Investigate the peripapillary vascular metrics in early normal tension glaucoma and early primary angle-closure glaucoma eyes using optical coherence tomography angiography.

The thickness of the outer retina in the macula and circumpapillary area in patients with unilateral advanced glaucoma.

Vahedian Z, Fakhraie G, Ghasemi M, Azimi A, Tabatabaei SM.

PMID: 35838807 DOI: 10.1007/s00417-022-05756-w

Compare outer macular and retinal thickness in the circumpapillary area in unilateral advanced glaucomatous eyes to the normal or mild glaucomatous fellow eyes.

Comparison of Diagnostic Ability Between Wide-Field Swept-Source Optical Coherence Tomography Imaging Maps and Heidelberg Retina Tomograph 3 Optic Nerve Head Assessment to Discriminate Glaucomatous and Non-glaucomatous Eyes.

Kourkoutas D, Triantafyllopoulos G, Georgiou I, Karamaounas A, Karamaounas N, Sotiropulos K, Kapralos D.

PMID: 36158420 DOI: 10.7759/cureus.28188

Determine the diagnostic performance of optic nerve head, macular, and circumpapillary retinal nerve fiber layer thickness measurements of wide-field maps (12 × 9 mm) using swept-source optical coherence tomography compared to measurements of the optic nerve head and retinal nerve fiber layer parameters measured by Heidelberg Retina Tomograph.

Retinal Nerve Fiber Layer Optical Texture Analysis: Detecting Axonal Fiber Bundle Defects in Patients with Ocular Hypertension.

Su CK, Guo PY, Chan PPM, Lam AK, Leung CKS.

PMID: 37315588 DOI: 10.1016/j.ophtha.2023.06.004

Apply retinal nerve fiber layer (RNFL) optical texture analysis (ROTA) to investigate the prevalence, patterns, and risk factors of RNFL defects in patients with ocular hypertension (OHT) who showed normal optic disc and RNFL configuration in clinical examination, normal RNFL thickness on OCT analysis, and normal visual field (VF) results.

Lamina Cribrosa Morphology in Normal Tension Glaucoma According to the Location of Visual Field Defects.

Kang YS, Haowei Z, Sung MS, Park SW.

PMID: 36897662 DOI: 10.1097/IJG.0000000000002202

Investigate morphologic differences in the lamina cribrosa in normal tension glaucoma according to the location of visual field defects.

Optic Nerve Head Changes After Intraocular Pressure-Lowering Glaucoma Surgeries Using Optical Coherence Tomography.

Silveira VD, Lindenmeyer RL, Pakter HM, Skaat A, Lavinsky D, Oliveira M, Picceti E, Lavinsky J, de Arruda Mello PA, Lavinsky F.

PMID: 37311019 DOI: 10.1097/IJG.0000000000002242

Optic nerve head changes were detected with swept-source optical coherence tomography after intraocular pressure-lowering glaucoma surgeries.

Agreement and Precision of Wide and Cube Scan Measurements between Swept-source and Spectral-domain OCT in Normal and Glaucoma Eyes.

Hou H, Ei-Nimri NW, Durbin MK, Arias JD, Moghimi S, Weinreb RN.

PMID: 37333284 DOI: 10.21203/rs.3.rs-3002468/v1

Evaluate agreement of Wide scan measurements from swept-source optical coherence tomography (SS-OCT) Triton and spectral-domain OCT (SD-OCT) Maestro in normal glaucoma eyes, and assess the precision of measurements from Wide and Cube scans of both devices.

OPTIC NERVE DISORDERS

Swept-source optical coherence tomography angiography of the optic disk in optic neuropathy.

Ghasemi Falavarjani K, Tian JJ, Akil H, Garcia GA, Sadda SR, Sadun AA.

PMID: 28005675 DOI: 10.1097/IAE.0000000000001259

Evaluate the optic nerve head microvasculature in eyes with acute and chronic optic neuropathies using swept-source optical coherence tomography angiography.

Optical coherence tomography angiography in acute unilateral nonarteritic anterior ischemic optic neuropathy: A comparison with the fellow eye and with eyes with papilledema.

Gandhi U, Chhablani J, Badakere A, Kekunnaya R, Rasheed MA, Goud A, Chhablani PP.

PMID: 30038161 DOI: 10.4103/ijo.IJO_179_18

Detect the optic nerve head and peripapillary perfusion in eyes with acute nonarteritic anterior ischemic optic neuropathy compared to the fellow normal eyes using optical coherence tomography angiography and to compare with nonischemic disc edema (papilledema).

Radial peripapillary capillary density in superior segmental optic hypoplasia measured with OCT angiography.

Abe M, Omodaka K, Kikawa T, Nakazawa T.

PMID: 32448227 DOI: 10.1186/s12886-020-01453-6

Investigate the diagnostic power of radial peripapillary capillary density, measured with optical coherence tomography angiography, in patients with superior segmental optic hypoplasia.

Comparison of Spectral-Domain OCT versus Swept-Source OCT for the Detection of Deep Optic Disc Drusen.

Rothenbuehler SP, Malmqvist L, Belmouhand M, Bjerager J, Maloca PM, Larsen M, Hamann S.

PMID: 36292204 DOI: 10.3390/diagnostics12102515

Comparison of currently widely used imaging technologies: swept-source optical coherence tomography and enhanced depth imaging spectral-domain optical coherence tomography for the detection of deep optic disc drusen and associated imaging features.

GENETIC DISORDERS

Segmented swept source optical coherence tomography angiography assessment of the perifoveal vasculature in patients with X-linked juvenile retinoschisis: a serial case report.

Stringa F, Tsamis E, Papayannis A, Chwiejczak K, Jalil A, Biswas S, Ahmad H, Stanga PE.

PMID: 29081674 DOI: 10.2147/IMCRJ.S136310

Describe perifoveal microvascular changes occurring in X-linked juvenile retinoschisis using swept-source optical coherence tomography angiography.

Capillary network alterations in x-linked retinoschisis imaged on optical coherence tomography angiography.

Romano F, Arrigo A, Ch'ng SW, Battaglia Parodi M, Manitto MP, Martina E, Bandello F, Stanga PE.

PMID: 29877903 DOI: 10.1097/IAE.0000000000002222

Assess foveal and parafoveal vasculature at the superficial capillary plexus, deep capillary plexus, and choriocapillaris of patients with X-linked retinoschisis by means of optical coherence tomography angiography.

Analysis of the foveal microvasculature in sickle cell disease using swept-source optical coherence tomography angiography.

Mokrane A, Gazeau G, Lévy V, Fajnkuchen F, Giocanti-Aurégan A.

PMID: 32678184 DOI: 10.1038/s41598-020-68625-8

Assess the foveal avascular zone area and explore perifoveal microvasculature changes in the superficial and deepcapillary plexus using optical coherence tomography angiography and compare two genotypes-HbS/HbS (HbSS) and HbS/HbC (HbSC)-to control.

Swept-source optical coherence tomography and optical coherence tomography angiography findings in waardenburg syndrome.

Hsiao AM, Choudhry N.

PMID: 30024478 DOI: 10.1097/ICB.0000000000000783

Report swept-source optical coherence tomography angiography findings on a patient with known Waardenburg syndrome.

Microvascular quantitative metrics in retinitis pigmentosa using optical coherence tomography angiography.

Duch Hurtado M, Vidal Oliver L, Marín Lambies C, Salom Alonso D.

PMID: 37031736 DOI: 10.1016/j.oftale.2023.04.004

Describe the changes in vessel density using optical coherence tomography angiography of the different sectors in the macular area between retinitis pigmentosa patients and controls.

CATARACT SURGERY

Changes in subfoveal choroidal thickness after uncomplicated cataract surgery.

Gudauskiene G, Matuleviciute I, Mockute R, Maciulaityte E, Zaliuniene D.

PMID: 30565567 DOI: 10.5507/bp.2018.076

Evaluate the subfoveal choroidal thickness after uneventful phacoemulsification using swept-source optical coherence tomography.

Associations between visual function and ultrastructure of the macula and optic disc after childhood cataract surgery.

Hansen MM, Bach Holm D, Kessel L.

PMID: 34786847 DOI: 10.1111/aos.15065

Association between visual function and ultrastructural characteristics of the retina and optic disc in children operated for cataract and factors influencing this relationship.

NEUROLOGICAL AND NEUROPSYCHIATRIC DISORDERS

Retinal and Choroidal Changes in Patients with Parkinson's Disease Detected by Swept-Source Optical Coherence Tomography.

Satue M, Obis J, Alarcia R, Orduna E, Rodrigo MJ, Vilades E, Gracia H, Otin S, Fuertes MI, Polo V, Larrosa JM, Pablo LE, Garcia-Martin E.

PMID: 29111842 DOI: 10.1080/02713683.2017.1370116

Evaluate the ability of new swept-source optical coherence tomography technology to detect changes in retinal and choroidal thickness in patients with Parkinson's disease.

Ability of Swept-Source Optical Coherence Tomography to Detect Retinal and Choroidal Changes in Patients with Multiple Sclerosis.

Garcia-Martin E, Jarauta L, Vilades E, Ara JR, Martin J, Polo V, Larrosa JM, Pablo LE, Satue M.

PMID: 30538857 DOI: 10.1155/2018/7361212

Evaluate the ability of new swept-source optical coherence tomography technology to detect changes in retinal and choroidal thickness in patients with multiple sclerosis.

Functional Evaluation of the Visual Pathway in Patients with Multiple Sclerosis Using a Multi-function Stimulator Monitor.

Satue M, Jarauta L, Obis J, Cipres M, Rodrigo MJ, Almarcegui C, Dolz I, Ara JR, Martin J, Pablo LE, Garcia-Martin E.

PMID: 31641531 DOI: 10.1155/2019/2890193

Assess the capability of the vision monitor unit Monpack One of detecting visual function alterations in patients with multiple sclerosis and to evaluate the correlation between structural retinal parameters and functional measurements obtained with this device.

Computer-Aided Diagnosis of Multiple Sclerosis Using a Support Vector Machine and Optical Coherence Tomography Features.

Cavaliere C, Vilades E, Alonso-Rodríguez MC, Rodrigo MJ, Pablo LE, Miguel JM, López-Guillén E, Morla EMS, Boquete L, Garcia-Martin E.

PMID: 31816925 DOI: 10.3390/s19235323

Evaluate the feasibility of diagnosing multiple sclerosis using optical coherence tomography data and a support vector machine as an automatic classifier.

Evaluation of the effect of fingolimod (FTY720) on macular perfusion by swept-source optical coherence tomography angiography in patients with multiple sclerosis.

Karaküçük Y, Gümüş H, Eker S.

PMID: 32657164 DOI: 10.1080/15569527.2020.1790591

Determine changes in retinal microcirculation, caused by fingolimod (FTY720) use, via swept-source optical coherence tomography angiography in relapsing-remitting multiple sclerosis patients.

Angiography with optical coherence tomography as a biomarker in multiple sclerosis.

Cordon B, Vilades E, Orduna E, Satue M, Perez-Velilla J, Sebastian B, Polo V, Larrosa JM, Pablo LE, Garcia-Martin E.

PMID: 33290417 DOI: 10.1371/journal.pone.0243236

Investigate superficial retinal microvascular plexuses detected by optical coherence tomography angiography in multiple sclerosis subjects and compare them with healthy controls.

Early diagnosis of multiple sclerosis by OCT analysis using Cohen's d method and a neural network as classifier.

Garcia-Martin E, Ortiz M, Boquete L, Sánchez-Morla EM, Barea R, Cavaliere C, Vilades E, Orduna E, Rodrigo MJ.

PMID: 33302162 DOI: 10.1016/j.compbiomed.2020.104165

Diagnose early-stage multiple sclerosis patients based on analysis of retinal layer thickness obtained by swept-source optical coherence tomography.

Evaluation of migraine patients with optical coherence tomography angiography.

Hamurcu MS, Gultekin BP, Koca S, Ece SD.

PMID: 34291402 DOI: 10.1007/s10792-021-01962-3

Compare optical coherence tomography angiography findings in cases with migraine and healthy controls.

Quantifying Retinal Microvascular Morphology in Schizophrenia Using Swept-Source Optical Coherence Tomography Angiography.

Bannai D, Adhan I, Katz R, Kim LA, Keshavan M, Miller JB, Lizano P.

PMID: 34554256 DOI: 10.1093/schbul/sbab111

Examine retinal microvascular changes in schizophrenia.

Diagnostic Ability and Capacity of Optical Coherence Tomography-Angiography to Detect Retinal and Vascular Changes in Patients with Fibromyalgia.

Garcia-Martin E, Tello A, Vilades E, Perez-Velilla J, Cordon B, Fernandez-Velasco D, Garcia-Campayo J, Puebla-Guedea M, Satue M.

PMID: 36065284 DOI: 10.1155/2022/3946017

Evaluate the neuroretina and retinal vasculature of fibromyalgia patients and calculate a linear discriminant function to improve retinal parameters' contribution to fibromyalgia diagnosis.

THYROID-ASSOCIATED OPHTHALMOPATHY

Evaluation of macular blood flow after intermittent intravenous infusion of high-dose corticosteroids (pulse therapy) in patients with thyroid-associated orbitopathy (TAO) using angio-OCT.

Del Noce C, Roda M, Ferro Desideri L, Traverso CE, Vagge A.

PMID: 34468829 DOI: 10.1007/s00417-021-05336-4

Evaluate the changes in macular blood flow index in patients with moderate to severe thyroid-associated orbitopathy before and after pulse therapy and their relationship with clinical features and disease activity using optical coherence tomography angiography.

Choroidal Thickness in Thyroid Eye Disease: Comparison With Controls and Application in Diagnosing Non-Inflammatory Active Disease.

Dave TV, Natarajan R, Reddy RU, Kapoor AG, Dave VP.

PMID: 34956776 DOI: 10.7759/cureus.19779

Report the differences in choroidal thickness in thyroid eye disease and normals and its discriminatory value for differentiating various stages of thyroid eye disease.

Evaluation of peripapillary vascular flow in patients with Thyroid-Associated Ophthalmopathy (TAO) by OCT Angiography.

Del Noce C, Roda M, Valsecchi N, Guandalini S, Di Geronimo N, Schiavi C, Traverso CE, Vagge A.

PMID: 35150304 DOI: 10.1007/s00417-022-05551-7

Evaluate changes in peripapillary vascular blood flow indices in patients with thyroid-associated ophthalmopathy using optical coherence tomography angiography technology.

CHRONIC HEALTH CONDITIONS

Frequency of ophthalmological posterior segment findings in patients with inflammatory bowel disease.

Nakayama LF, Bergamo VC, Conti ML, Costa LA, Moraes NSB, Ambrogini O Jr.

PMID: 30043872 DOI: 10.1590/S0004-2803.201800000-34

Evaluate ocular posterior segment findings is patients with inflammatory bowel disease, through retinal mapping, color fundus retinography, optical coherence tomography and optical coherence tomography angiography, and compare results to literature.

The retinal foveal avascular zone as a systemic biomarker to evaluate inflammatory bowel disease control.

Nakayama LF, Bergamo VC, Conti ML, Fares NT, Costa LA, Ambrogini O Jr, de Moraes NSB.

PMID: 31406581 DOI: 10.1186/s40942-019-0168-9

Compare the area of the foveal avascular zone in patients with a diagnosis of inflammatory bowel disease during remission and active disease.

Ganglion cell layer thickening in patients suffering from Obstructive Sleep Apnea-Hypopnea syndrome with long Mean Apnea-Hypopnea Duration during sleep.

Chalkiadaki E, Andreanos K, Karmiris E, Florou C, Tsiafaki X, Amfilochiou A, Georgalas I, Koutsandrea C, Papaconstantinou D.

PMID: 33201446 DOI: 10.1007/s10792-020-01648-2

Study the effects of mean apnea-hypopnea duration, a useful indicator of blood oxygenation, on peripapillary retinal nerve fiber layer, macular ganglion cell to inner plexiform layer and macular retinal thickness in patients with obstructive sleep apnea-hypopnea syndrome.