







Special Issue Reprint

# Optical Coherence Tomography Imaging: Advances in Ophthalmology

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Edited by Jay Chhablani Sumit Randhir Singh

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The advent of optical coherence tomography (OCT) has arrived in an era in which the in vivo, cross-sectional imaging of both the retina and choroid is possible. Infra-red rays of light are used to image the chorioretinal layers with an image resolution reaching 10-15 microns. During the last three decades, OCT technology has undergone several improvements, such as spectral domain OCT (SD-OCT), swept source OCT (SS-OCT), enhanced depth imaging (EDI-OCT), wide field OCT, intraoperative OCT, OCT angiography (OCTA), and adaptive optics OCT. These enhancements help in both the qualitative and quantitative analysis of chorioretinal parameters in pathologies such as macular edema, neurosensory detachment, retinoschisis, macular holes, epiretinal membranes, and choroidal tumors. An added advantage is the role of OCT in the evaluation of optic disc disorders, including optic neuritis and glaucoma, via the quantitative analysis of the retinal nerve fiber layer. Moreover, OCT being non-invasive provides an opportunity for serial imaging during follow-up visits. Overall, OCT imaging provides tissue details, closely mimicking the histopathology, and is an invaluable asset in the armamentarium of retina physicians. This special issue includes applications of OCT in various chorioretinal disorders.





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