

THE OCT ISSUE

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Since it was first introduced in 1991,¹ OCT has become integral to nearly every aspect of retina care—from screening and

diagnosis to prognostication, treatment monitoring, and clinical trial design. At this year's Angiogenesis, Exudation, and Degeneration virtual meeting, more than 20 sessions were dedicated to OCT-based findings, underscoring just how central this technology has become to both research and day-to-day clinical decision making. An OCT biomarker, ellipsoid zone attenuation, is even an approved clinical trial endpoint.

Twenty years ago, OCT was limited to specialty clinics, and we weren't relying on it for most of our clinical decisions (for more on the journey of OCT in our field, check out this issue's *Retina: Then and Now* series with Jay S. Duker, MD). Now, OCT angiography (OCTA), widefield imaging, microscope-integrated OCT, 3D overlays, and even home-based OCT systems are expanding how (and where) we visualize retinal layers and blood flow.

This issue looks at the current state of retinal imaging with OCT, highlighting both the technological advances and the clinical and surgical considerations that accompany them. Amir H. Kashani, MD, PhD, and colleagues explore the role of OCTA in evaluating retinal vascular diseases such as diabetic retinopathy, macular degeneration, and central serous retinopathy.

Widefield structural imaging has become increasingly important as we learn more about retinal pathologies, and the team at Doheny Eye Institute provides an overview of widefield OCT devices and how they are extending our view into the periphery.

For a closer look at the day-to-day clinical utility of OCT imaging, Kotaro Tsuboi, MD, PhD, explains how to identify epiretinal proliferation with en face OCT and proposes its inclusion in the preoperative imaging for macular holes.

OCT is also beginning to reshape our ORs. Lejla Vajzovic, MD, and her team at Duke Eye Center review the surgical applications of microscope-integrated OCT, including the use of an investigational swept-source device, and discuss the future of single-channel visualization platforms. Complementing this, Jayanth Sridhar, MD, and colleagues examine recent advances in 3D visualization in the OR, along with the growing integration of AI and robotics into surgical workflows.

This issue offers a comprehensive view of how far OCT imaging has come. As these technologies become more sophisticated and integrated across clinical settings (and yet simpler to use in the clinic and beyond), they are influencing how we think about diagnosis, management, and outcomes. We hope this issue provides both practical insight and a broader perspective on the expanding role of OCT in retina care. ■

1. Huang D, Swanson EA, Lin CP, et al. Optical coherence tomography. *Science*. 1991;254(5035):1178-1181.

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