## What Is the Limit of Imaging?

he introduction of imaging into retina practice has improved our ability to review the retina and diagnose pathologies, and it has grown our understanding of the diseases we treat in the clinic and OR on a daily basis.

When time-domain optical coherence tomography (OCT) was introduced, it was described as a way to capture an in vivo biopsy of the human eye. The release of commercial devices employing Fourier-domain formulas for image capture (ie, spectral-domain OCT) brought us closer to this reality. Now, spectral-domain OCT is being employed in novel ways to capture images of the choroid (enhanced-depth imaging, or EDI) and it is being studied as a potential tool to bring into the OR to guide surgical maneuvers.

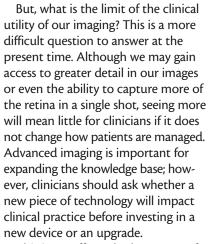
Manufacturers are creating devices that image the peripheral retina, the output of which may have significance for early disease recognition and/or discerning the risk of progression of retinal and macular pathologies. An intriguing technology (RHA, Annidis) uses light from multiple wavelengths to capture segmented images of the retina and

choroid. We may yet learn a great deal about the pathophysiology of age-related macular degeneration, diabetic macular edema, and other disease states.

So, what is the limit of imaging? It seems we are bound only by the capabilities of current technology, but there

is every indication that future iterations of imaging platforms will expand our view. New light sources, faster software, and imaging techniques and enhancement that have not yet been invented have the potential to change

what is knowable.



This issue offers a look at some of the current research in the field of imaging and visualization. There is a report on the 3 widefield imaging devices currently offered on the commercial US market, as well as articles on the potential utility of EDI- and intraoperative OCT.

This special cover feature is offered as a glimpse of what the future may hold, but with the important caveat that although imaging adds to the clinical impression, it cannot be a substitute for the knowledge and discretion of a trained physician.



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