

# Imaging and Visualization: A Focus on Surgery

Imaging technology has, unarguably, become a crucial component to practice, not only for diagnostic purposes, but also for treatment decisions, research and development, and for guiding surgical maneuvers.

In past issues focusing on retinal imaging, *Retina Today* has featured articles on how the technology has been used for diagnosis, pharmacologic treatment, and research into new therapies. As imaging technology matures and we gain increased experience with the various modalities that we have at our disposal, we are learning to use it in new ways. As surgeons who operate, quite literally, in the dark, both often in the physical OR and in the posterior segment of the eye itself, the advances that have been made in imaging and visualization have improved, or will soon improve, our success rates and our ability to refine surgical techniques.

This issue concentrates on imaging and visualization and specifically hones in on how these advancements are being used in surgery. First, the use of intraoperative imaging with spectral-domain optical coherence tomography (SD-OCT), still in the investiga-

tive phases, is described in two articles in this issue. Employing ultrasound to guide plaque placement for choroidal melanoma, which represents an improvement over more damaging methods of radiation treatments, is the topic of another feature in the issue. Then, a step-wise approach to surgery for open-globe injuries is described using binocular indirect ophthalmoscope for wide-angle visualization. Finally, the focus shifts to vital dyes for surgery.

One of the articles that stand apart from the surgical focus is on a new application of SD-OCT, enhanced depth imaging for choroidal pathologies. This new application of SD-OCT has exciting promise to allow clinicians to obtain information on the choroid that has been elusive thus far.

We hope our readers enjoy this specialized look at retinal imaging and find useful information within to use in clinical practice. ■



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