

THE FUTURE IS HERE



We are well into a new year, and changing the date on our forms always seems to prompt a sense of nostalgia, along with the drive to

start fresh with our resolutions. As we worked on this issue focused on surgical tools and techniques, we were reminded just how far we have come in our field. Our retina clinics and ORs are a far cry from what they were when *Retina Today* first launched in 2006. Back then, authors were debating the value of 25-gauge versus 20-gauge vitrectomy,¹ combined vitrectomy/scleral buckling was still the norm for retinal detachments,² and the utility of peeling the internal limiting membrane (ILM) for the treatment of macular holes was still up for debate.³ There was nary a peep about AI, robotics, ultra-widefield anything, 3D visualization, or gene therapy. We barely had drugs to deliver, let alone various surgical delivery approaches.

But those tools, so far in the future they weren't even mentioned nearly 20 years ago, are a reality in today's ORs. Within these pages, experts discuss new intraoperative visualization tools, advanced IOLs and implantation techniques, novel approaches to macular holes and diabetic vitrectomy, and innovative surgical drug delivery methods.

The latest advances in the OR have allowed us to treat patients who once had very few, if any, treatment options, and they have certainly improved anatomic and functional outcomes. Take those macular holes, for example. No one is debating the utility of ILM peeling anymore, considering the closure rate can be as low as 58% with vitrectomy alone but jumps to a whopping 92% with ILM peeling.⁴ Marcelo Zas, MD, PhD, and colleagues provide a robust look at the latest surgical approaches in *Macular Surgery: Current and Innovative Techniques*.

And not only do we have 3D visualization in the OR, but we are also adding to that technology with intraoperative imaging, whether it's OCT (see *3D Heads-Up Display: Pearls for New Users* in the April 2023 issue) or fluorescein angiography, discussed here in *The Ins and Outs of Intraoperative FA* by Alan J. Franklin, MD, PhD, and his team.

The 2006 research suggesting 25-gauge instruments added too much time to the surgery is long forgotten with the advent of 27-gauge tools.¹ The smaller-gauge instruments have made early vitrectomy for diabetic retinopathy not only possible, but also potentially the best treatment approach for certain patients, according to Andreas Pollreis, MD, and colleagues in this issue's article, *Vitrectomy for Diabetic Retinopathy: Think Early, Not Late*.

Each of the innovations discussed in this issue is a product of intense collaboration—with colleagues, patients, researchers, industry partners, and regulators. We couldn't care for our patients to the best of our ability without it. So, we thank everyone who has helped create the OR we step into every day and is working toward a better one for the future. ■

— Lejla Vajzovic, MD, FASRS, and M. Ali Khan, MD

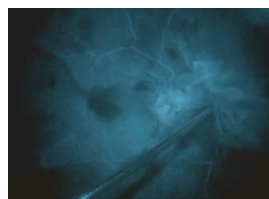
1. Wimpissinger B, Kellner L, Stolba U, Binder S. Miniaturized instruments in vitreoretinal surgery: the future? *Retina Today*. 2006;1(2). retinatoday.com/articles/2006-june/0606_11.html
2. Koury CB. Results of the SPR study: scleral buckling vs primary vitrectomy in retinal detachment. *Retina Today*. 2006;1(2). retinatoday.com/articles/2006-june/0606_12.html
3. Clinical trial update: retinal surgery. *Retina Today*. 2006;1(2). retinatoday.com/articles/2006-june/0606_14.html
4. Pradhan D, Agarwal L, Joshi I, Kushwaha A, Aditya K, Kumari A. Internal limiting membrane peeling in macular hole surgery. *Ger Med Sci*. 2022;20:Doc07.

Want to learn more about visualization in the OR? Check out **3D Heads-Up Display: Pearls for New Users** in the April 2023 issue



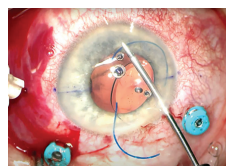
ON THE COVER

MAIN IMAGE

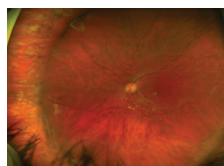


Intraoperative fluorescein angiography. From *The Ins and Outs of Intraoperative FA*, by Lukan Mishev, MD; Nassim Abreu-Arbaje, MD; Joaquin Sosa-Lockward, MD; Lauren Gibson, MD; Aly Nguyen, BS; and Alan J. Franklin, MD, PhD.

INSETS



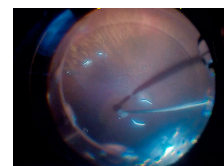
Off-label sutureless flanged intrascleral haptic fixation of an IOL. From *IOL Options for Sutureless Fixation*, by Murtaza Adam, MD.



One month after silicone oil removal for rhegmatogenous retinal detachment repair. From *How to Choose the Right Tamponade*, by Lucy V. Cobbs, MD, and Vaidehi S. Dedania, MD.



Proliferative diabetic retinopathy in a 26-year-old woman with type 1 diabetes. From *Vitrectomy for Diabetic Retinopathy: Think Early, Not Late*, by Andreas Pollreis, MD; Peter Szurman, MD, PhD; and Boris V. Stanzel, MD.



Autologous retinal transplant for refractory macular holes. From *Macular Surgery: Current and Innovative Techniques*, by Marcelo Zas, MD, PhD; Mariano Cotic, MD; and Marcos Mendaro, MD.