

# Ophthalmology in Evolution

Twenty years wrought radical changes in a conservative specialty.

BY LISA BROTHERS ARBISSER, MD

Initially, I wondered why I received the honor of an invitation to write an article for *Cataract & Refractive Surgery Today's* "Cataract Surgery Modern History" column. Upon further thought, however, I realized that I have been seriously engaged in ophthalmology for a quarter of a century and that my starting when women in the field were rare might give me an uncommon perspective.

## FIRST EXPOSURE TO OPHTHALMOLOGY

My grandfather was blinded by a giant-tear retinal detachment in one eye. When I was 11, the retina of his fellow eye detached. Desperate research by my family discovered that a young ophthalmologist, Charles Schepens, MD, had invented a procedure known as a scleral buckle. We flew to Boston for my grandfather's care. The pathos and significance of that first postoperative moment when my grandfather saw my face (which he had not in weeks!) compelled me to become an ophthalmologist (Figure 1).

Decades later, I was thrilled to shake Dr. Schepens'



Figure 1. The sight-saving procedure on her grandfather Morris K. Bauer inspired Dr. Arbisser to become an ophthalmologist. This photograph was taken in or around 1974.

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hand after his induction into the ASCRS Hall of Fame. I thanked him for my grandfather's sight and for revealing to me my calling.

## RESIDENCY

As a young mother and the wife of a courted pediatric ophthalmology fellow, I had the privilege of being accepted into the ophthalmology residency at the University of Iowa in Iowa City. My application in the mid-1970s preceded the matching process, and Department Chairman Frederick Blodi, MD, insisted that each staff member personally interview all candidates prior to their acceptance (Figure 2). There had not been a female doctor in the department for years, and I became only the second female resident in the department's history.

During my first years there, my colleagues and I performed intracapsular cataract extractions with a cryoprobe. Patients were hospitalized and their activities restricted postoperatively. We had to make sure not only that their vision was sufficiently poor to warrant the considerable risk of surgery and handicap of aphakia but also that they were systemically healthy enough to survive the immobility associated with their recovery. IOLs were considered very high risk. We were restricted to implanting them in one eye of patients older than 70 years.

Within the department, there were heated, erudite, multidisciplinary debates concerning the risks and benefits of intact posterior capsules as well as iris-supported, anterior chamber, and sulcus-fixated IOLs. The tone of those discussions continues to influence me profession-



(Courtesy of H. Stanley Thompson, MD)

**Figure 2.** This photograph of Dr. Blodi's Iowa ophthalmology faculty was taken in 1983, at the end of Dr. Arbisser's residency, at the annual corn party on Stan and Delores Thompson's farm. The picture was a farewell gift to departing Department Chairman Frederick Blodi, MD, who had hired all of the doctors present—or pictured if they could not attend the event—with the exception of Drs. Leinfelder, Braley, and Watzke. From left to right: Charles Phelps, MD; P.J. Leinfelder, MD; Alson E. Braley, MD; Robert Watzke, MD; Dr. Blodi in driver's seat; Mel Chiles (front row); Richard Anderson, MD, in loader; Sohan Hayreh, MD, PhD; H. Stanley Thompson, MD; David Tse, MD; Jay Krachmer, MD, standing (second row); Paul Montague, CRA, FOPS, who set up this photograph; Hans-Joerg Kolder, MD; Terry Perkins, MD, PhD (over bale of hay); Andrew Packer, MD; James Corbett, MD; James Folk, MD (top row). From top to bottom in photographs nailed to the wall: William Scott, MD; Thomas Weingeist, MD, PhD; G. Frank Judisch, MD; Karl Ossoinig, MD.

ally and personally. Anecdotal experience was tempered with evidence-based information. Dr. Blodi was a scholar of the world's ophthalmic literature as well as a wonderful student (and teacher) of medical history. He maintained that there were no new ideas, only people who failed to read the literature.

The long-term goal of enabling patients to achieve functional vision for life stood in opposition to the lure of new and fast fixes. The humanitarian and conservative nature of the debates was inspiring, but we were

understandably concerned that we might not only fail to jump on the bandwagon but would eat its dust. In what we labeled the *Watzke spare eye theory*, retinologist Robert Watzke, MD, admonished us to limit risk to only one eye and, when possible, to preserve the other eye for better or safer future technology.

Rapid and radical changes in the department began with Dr. Blodi, who suffered from visually significant cataracts. Because he concluded after extensive research that cystoid macular edema occurred more frequently



Figure 3. Dr. Arbisser transitioned to phacoemulsification after taking a course taught by Howard Gimbel, MD, in 1990. They are pictured here with her husband, Amir Arbisser, MD (left).

following IOL implantation, he chose to undergo intracapsular surgery with contact lens rehabilitation. Tragically, he experienced contact lens intolerance postoperatively and elected to postpone surgery on his second eye until his good friend and professor of cataract surgery, Hans-Joerg Kolder, MD, achieved proficiency with extracapsular cataract extraction (ECCE) and implanting an IOL in the sulcus. While Dr. Blodi was visually debilitated, the former Governor of Iowa sought cataract surgery outside the university. His choice confirmed that we were indeed eating the bandwagon's dust.

In 1980, the department converted entirely to ECCE with IOLs implanted in the sulcus or anterior chamber. We rarely performed phacoemulsification, which was restricted to young patients who were not to receive a lens implant.

### PRIVATE PRACTICE

A multidisciplinary approach to ophthalmic training appears to be increasingly rare. I was privileged in my training and residency to perform dozens of scleral buckles, corneal transplants, and trabeculectomies as well as oculoplastic and strabismus procedures. My husband, Amir, and I were able to choose a community that needed our skills. We started our practice by hanging out a shingle—today, an almost forgotten way to become established in medicine. Amir and I were the first to bring outpatient cataract surgery, the Nd:YAG laser, and subspecialty care to our new community, Davenport, Iowa. Today, our practice has 17 doctors representing all of the ophthalmic subspecialties and optometry.

### TECHNICAL EVOLUTION

For years, I minimized my amount of surgically induced astigmatism by carefully constructing the extracapsular incision and selectively removing sutures. I had an epiphany while attending a course taught by Howard Gimbel, MD, in Calgary, Alberta, Canada, in 1990. His technique of phacoemulsification with a continuous curvilinear capsulorhexis to enhance surgical safety made the procedure viable in my hands for all patients (Figure 3). I abandoned ECCE and embraced phacoemulsification.

Today, the majority of my patients experience virtually instant visual recovery with minimal discomfort, an immediate resumption of all of their activities, and a reduced dependence on spectacles. I stand on the shoulders of leaders like Robert Osher, MD; I. Howard Fine, MD; James Gills, MD; and Warren Hill, MD. They unselfishly teach and mentor colleagues and occasionally suffer on our behalf by operating at the “bleeding” edge. I have always preferred a comfortable and rewarding place right behind them.

### TODAY

Governmental regulations remain a double-edged sword for ophthalmology. As with the contentious introduction of IOLs, patients with zonular pathology waited 7 years for the FDA to approve capsular tension rings. Individuals with iris defects still await the approval of devices available outside the US that will salvage their vision.

Regular reductions in ophthalmologists' reimbursement and legislative fiat to determine scope of practice adversely affect whether surgeons can acquire the latest technology and maintain a top-quality staff. The complex web of coding and insurance claims combined with HIPAA's and OSHA's regulations requires greater supporting staff to keep a practice viable. As a result, much of the investment in continuing medical education must be administrative rather than medical. Often incomprehensible regulations hamstring research. As the availability of independent grants decreases, support from industry rises. This partnership benefits patients, although it raises concerns about bias.

Despite these frustrations, the daily exhilaration of analyzing patients' needs, restoring their vision, and enhancing their and their loved ones' lives never fades for me. ■

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