

# Birthing Pains and Tribulations

A personal account of early lens implantation.

BY JOHN J. ALPAR, MD, FACS, DRHC

In an article summarizing his cataract operations from 1920 to 1960, my unforgettable teacher, Professor Gusztav Horay of Hungary, expressed the hope that one of his students would solve the problem of aphakia.<sup>1</sup> I was one of many ophthalmologists who worked to realize his wish.

## EARLY EXPERIMENTS

I began experimenting with IOLs in 1955, but the Red Army interrupted my work and forced me to leave my native Hungary in a hurry. When I came to the US, I mentioned IOLs to some ophthalmologists and was told that “putting a foreign body in an eye was irresponsible, unethical and criminal.”

After retraining and subsequently establishing a practice in Amarillo, Texas, my interest in IOLs was rekindled upon seeing a patient with well-placed Epstein lenses

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that Henry Hirschman, MD, of Long Beach, California, had implanted after intracapsular cataract extraction. When I called Henry, he graciously invited me to visit him. I spent a few exciting days watching surgery, seeing patients (immediately and months) postoperatively, and talking with him.

Back in Texas, I ordered some faulty lenses and practiced implanting them into eye-banked eyes. Once I felt fairly safe, a patient permitted me to remove his cat-

aract and implant an IOL just before his scheduled evisceration. Soon thereafter, in the early 1970s, I began implanting Copeland lenses in patients with macular degeneration. It quickly became apparent that this IOL was a poor choice due to iris chafing.

In 1974, I attended the International Congress of Ophthalmology meeting in Paris and then a course given by Cornelius Binkhorst, MD, and Jan Worst, MD, in the Netherlands. It was an unforgettable experience. From then on, I implanted Binkhorst lenses and Worst Medalion two-loop lenses.

Next, I traveled to England to observe Peter Choyce and became the 80<sup>th</sup> member of the International Intra-Ocular Implant Club (Figures 1 and 2). I returned to the



Figure 1. Members of the International Intra-Ocular Implant Club posed for this photograph in the early 1980s. Pictured from left to right are John Alpar, MD; Norman Jaffe, MD; Cornelius Binkhorst, MD; Jan Worst, MD; Harold Ridley; Peter Choyce; Svyatoslav Fyodorov, MD; and Michael Roper-Hall, MD.



Figure 2. Peter Choyce and John Alpar, MD.

Netherlands to discuss my experience with Dr. Worst and, later, Dr. Binkhorst. I did not adopt the Choyce lens.

### CHALLENGES

When I implanted several IOLs in Amarillo, my colleagues cried bloody murder. One informed a patient of mine that I was insane, should be locked up, and should have my license revoked. (Interestingly, he later took a weekend course in phacoemulsification and scheduled his first patient for phacoemulsification and IOL implantation the next day.) I proceeded with the utmost care. After my first five patients, I observed them and did not perform additional lens implantation for 3 months.

One great challenge in those days was to find a dependable manufacturer that produced high-quality IOLs. I relied on the reports of honest, highly experienced surgeons rather than advertisements, such as the ones sent to me by a company in California that refused to give me information on its manufacturing processes. Shortly thereafter, many of its lenses caused fungal endophthalmitis.

### DIFFERENT DESIGNS

Because my residency training in Hungary included extracapsular cataract extraction in high myopes, I felt comfortable implanting Binkhorst two-loop lenses, which—before ophthalmologists understood proper capsular fixation—often relied upon fixation through cortex retained at 12 and 6 o'clock. I developed a suture to fixate such lenses.<sup>2</sup>

In 1975, William Simcoe, MD, of Tulsa, Oklahoma, presented his conversion of a Binkhorst four-loop lens into a PCIOL with compressible C-loop haptics to be used after extracapsular cases.<sup>3</sup> Later, Steven Shearing, MD, of Las Vegas introduced his J-loop lens with open but not too

flexible loops, which helped to popularize the PCIOL. The Shearing lens, however, often proved to be unstable and caused “windshield wiper” and “sunset/sunrise” syndromes. The procedure, especially as he described it, created problems such as hemorrhages during implantation. I found the IOL designed by Richard Kratz, MD, of Newport Beach, California, and Robert Sinskey, MD, of Santa Monica, California, to be more manageable.

### GATHERING DATA

I carefully followed my patients and photographed them at every visit. In the early phase of my implantation surgeries, I evaluated the endothelium using the Vogt technique of a small light beam. I later transitioned to the McIntyre and the Karachinov grid and then to endothelial specular microscopy.<sup>4</sup> I measured corneal thickness with an optical pachymeter from Carl Zeiss Meditec Inc. (Dublin, CA).

The calculation of IOL power was problematic. Different nomograms and, later, the work of Hermann Gernett, MD,<sup>5,6</sup> allowed ophthalmologists to come within an acceptable (at least for the 1960s and 1970s) closeness of IOL power.<sup>7</sup>

I felt obliged to publish my results. Because I concentrated my articles and lectures on problems, I think I established a reputation as a surgeon with the highest number of possible complications from IOLs. After one of my courses at the University of North Carolina in Chapel Hill, Professor David Eifrig said I was discouraging the residents from learning lens implantation. I told him that they must understand that not everything is free of complications.

I carefully studied every photograph and 8-mm movie I took. If any complication developed, I reviewed the entire record. I dictated the surgery in the greatest detail. Not only did I relay how much irrigation fluid (and, later, viscoelastic) I had used, but I also noted any accidental touch of instruments and endothelium, any damage to the iris during implantation, the occurrence of hemorrhage, and how the cortical evacuation went. At the hospital, the reviewer of my patients' charts sometimes balked at the level of detail and questioned whether I knew what I was doing. I tried to explain that my detailed records were for educational purposes.

IOL implantation delivered my patients from the discomfort of wearing contact lenses or heavy spectacles in a dusty, dry climate that made it impossible for them to continue as ranchers and farmers.<sup>8</sup> Moreover, because the residents of Amarillo generally do not move away, I have been able to follow the results of my lens implantations during the lifetime of my patients. Some have come back to my office as long as 20 years after

surgery. One patient is now 98 years of age!

## FULFILLMENT

Deep satisfaction, besides sharing my patients' joy, has always come from my association with some of the great ophthalmologists of the world. One such experience was my collaboration on a book with Paul Fechner, MD, of Gehrden-Hanover, Germany, that, although outdated, is still popular with several ophthalmologists, especially in India.<sup>9</sup> I am also proud to have favorably influenced the training and the lives of many young and not-so-young ophthalmologists worldwide. My greatest satisfaction, however, is that I accomplished what I did without any advertising. ■

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