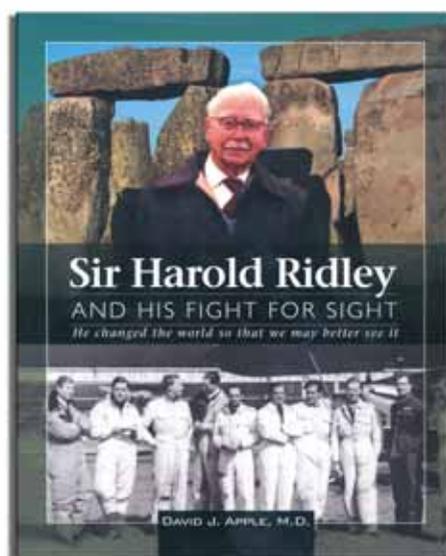


by Paul McGinn



**Sir Harold Ridley and His Fight For Sight: He changed the world so that we may better see it**  
 By David J Apple, MD.  
 Published 2006 by Slack Incorporated with unrestricted grant from Advanced Medical Optics, Inc. 316 pages, including acknowledgments, photos, illustrations, graphs, biographical chronology, glossary, maps, and bibliography. Forewords by Jim Mazzo, I Howard Fine, Emanuel Rosen, and Christopher Morgan.

Today ophthalmologists venerate Harold Ridley as a prophet; but only a generation ago, they scorned him as an outlaw.

In a tale repeated since biblical times, Ridley's story of his intraocular lens (IOL) should humble us as we recall that ophthalmologists stupidly deprived tens of millions of cataract patients of the same benefits that have since provided clear vision for hundreds of millions of cataract patients.

Those same ophthalmologists (if they are still alive) will now cringe as they read David Apple's extraordinary account of Ridley's life and work, *Sir Harold Ridley and His Fight for Sight*.

Apple, the much respected professor at the Moran Eye Center at the University of Utah and friend of Ridley, has produced the first account of Ridley's search for better vision for cataract patients. Now on the 100th anniversary of Ridley's birth, the book pays rightful homage to the man who changed cataract surgery forever. But the book is much more than a biography. Throughout his book, Apple devotes many words to the history and future of ophthalmology, a history that shaped Ridley's vision and a future that he helped to create.

As many may already know, the development of the IOL owes much to events and suffering that coincided with Ridley's own quest to improve cataract surgery for his patients. Apple relates the well-known story of the Royal Air Force

fighter pilot, Flight Lieutenant Gordon Cleaver. During a dogfight with a Nazi fighter during the 1940 Battle of Britain, bullets from the German plane's guns shattered the side windows of Cleaver's cockpit, sending tiny shards of the acrylic window material into both eyes.

After parachuting to safety, Cleaver ultimately received treatment for his wounds from a number of ophthalmologists at temporary hospitals in the south of England. One of those ophthalmologists was Ridley. Unable to remove the shards from Cleaver's eyes, ophthalmologists could only watch and wait to see what happened. As the years followed, the extraordinary happened – nothing.

That discovery was to take on a life-changing significance in 1948, when a medical student was observing Ridley perform a cataract operation. The student supposedly turned to Ridley and asked if he intended to replace the part he had removed. "I, after that, then raised the courage to attempt careful and truly scientific experiments on patients who, after full explanation of the risks, volunteered to advance science and help others," Ridley later wrote.

Apple relates that from that event, Ridley immersed himself in the quest for an IOL, ultimately persuading researchers at the London-based Rayner Optical Company to manufacture the first IOL from the same acrylic material that still lay inert in Lieutenant Cleaver's eyes. On November 29, 1949, Ridley removed the clouded lens from a patient known as "Elizabeth A". As momentous as that day should be for the history of the IOL, Ridley's historic surgery has been robbed of an absolute anniversary because the hospital's operation record for that day only mentions that Ridley performed an extra-capsular extraction on Elizabeth. The first date on which the records show any indication of a lens implant is February 8, 1950, when the record for Elizabeth reads "lenticular graft".

Until his death (and many times to Apple) Ridley insisted that November 29 was the date of the first insertion and the following February an exchange of the first lens. Regardless of when Ridley performed the first insertion, by July of 1951 – when Ridley announced his findings to the Oxford Ophthalmological Congress – he was branded as an outlaw and banished into the ophthalmology wilderness. As Ridley

observed later: "Without doubt, the birth of intraocular lens implants was greeted with disbelief and often with hostility both in Britain and throughout the world of ophthalmology."

Until his retirement in 1971, Ridley continued to meet hostility from the vast majority of ophthalmologists within and beyond the UK. As Apple relates, however, some ophthalmic surgeons of great foresight (including David Peter Choyce, who participated in some of Ridley's earliest IOL insertions) stepped up to support Ridley's IOL with dogged, clinical research and personal determination. Others began to add their support through such groups as the Intraocular Implant Club, the predecessor of the ESCRS that met for the first time in 1966.



David J Apple autographing copies of Ridley biography in AMO Booth at ESCRS Congress

Such support was crucial to the ultimate verification of Ridley's IOL. As Apple relates through concise prose and a prodigious number of illustrations, today's ophthalmic surgeons continue to owe their accomplishments in cataract and refractive surgery to Ridley and his idea. Apple also reminds us that Ridley's invention of the IOL was not his only gift to ophthalmology. Ridley made strides in the diagnosis and treatment of such disorders as nutritional amblyopia and river blindness and in the application of television to ophthalmology. In an effort to help financially needy nurses in the UK and to promote ophthalmic services for those in underdeveloped countries, Ridley established the "Ridley Foundation" in 1967. That foundation was one of the first to

train and assist local ophthalmic surgeons in their home countries and included training in the insertion of IOLs after cataract extraction.

By the mid-1970s, the tide of professional hostility had ebbed, and the acclaim we now attach to Ridley's name began to flow. In 1979, Ridley received a leather-bound volume titled, "A Salute to Dr Harold Ridley," filled with signatures of some 4,000 surgeons from the American Academy of Ophthalmology and Otolaryngology. Numerous other honours followed over the remainder of Ridley's life, including election to the acclaimed Royal Society; reception of conferral with an honorary doctorate from the Medical University of South Carolina (where Apple was then chairman of the Ophthalmology Department); election to the Ophthalmology Hall of Fame; and ultimately, on February 9, 2000, knighthood from Queen Elizabeth II.

Some 15 months later, Apple recalls the telephone call he received informing him that Ridley had suffered a severe stroke. "I broke into profuse tears that lasted for a long time," Apple wrote. Two days later, on May 25, 2001, Sir Nicholas Harold Lloyd Ridley, MD, FRCS, FRS, died.

After devoting a number of pages to Ridley's death and posthumous tributes, Apple concludes his book with a fitting salute to a man whose self-confidence, will, wit, and humility sustained him through those many years in the ophthalmology wilderness:

Harold once said, "I would have on my tombstone, 'He cured aphakia.'" He then questioned his own suggestion by musing, "And people will ask, 'Who was Mr Aphakia?'" Such was the self-effacing humor of a modest genius – a man who in a very real sense gave his life to bring sight to countless millions for untold generations to come. I am honored to have known him.

Perhaps we, too, can share in the honouring of Ridley by welcoming prophets like him as they campaign to create a better world for all of us. For those prophets who may not receive such a welcome, we can only hope that they remember Ridley's words:

"The greatest fear known to man is a new idea. If you have strong reasons to believe in your ideas, have confidence – face the brickbats and go ahead."