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my knowledge about areas of medicine. A decade later, these graduates are established physicians and surgeons throughout the United States. If I need an orthopedic surgeon in Minneapolis or a pediatrician in St. Louis, it takes me only a few minutes to find the right person.

How have your experiences overseas changed your view of the way in which glaucoma is treated in the United States?

Treating people with glaucoma in West Africa and observing how glaucoma patients are cared for in Asia and Latin America have increased my appreciation of how complex and expensive the treatment of the disease is relative to, for example, cataract. With few exceptions, the treatment of glaucoma in Sub-Saharan Africa is limited to glaucoma filtration surgery, because medications are prohibitively expensive and laser trabeculoplasty generally is not available.

In the United States, we commonly have the luxury of using the best diagnostic equipment to pick up the earliest stages of disease and optimally treating patients with minimal concern about cost. In this environment, however, we must be careful regarding the excessive utilization of diagnostic tools and the overtreatment of patients who have mild or slowly progressive disease that, in many instances, is not likely to influence patients’ activities of daily living over a lifetime. I believe that there is both over- and undertreatment of glaucoma in the developed world—over-treatment of patients at low risk of vision loss and undertreatment of those who have severe and/or rapidly progressing disease and who are thus good candidates for early surgical intervention.

One feature that developing and developed countries share with regard to glaucoma is that the majority of people with the disease are undiagnosed in both settings. We need a global initiative to find better screening tools for both open-angle and angle-closure glaucoma.

Will the new microinvasive glaucoma surgeries substantially change the treatment of glaucoma? Where will these procedures fit into physicians’ armamentarium?

Approximately 8 years ago, a prominent glaucoma colleague suggested that trabeculectomy would not be the most commonly performed glaucoma surgical procedure in the United States in 5 years, while I argued that trabeculectomy would prevail as the first-line glaucoma surgical procedure of choice in the coming years. I would take the same position today but only if we were talking about stand-alone glaucoma surgery.

The revolution in glaucoma surgery is occurring in combination with cataract surgery, and the new microinvasive glaucoma procedures are going to transform the treatment of patients who have both conditions. A group of my colleagues at Stanford, Richard Lindstrom, MD, and I recently published an editorial on this subject. We predicted that, “Over the coming decade, whether the ophthalmologist sees a rapid revolution or continued slow evolution in glaucoma surgery will largely depend on his or her practice mix. For busy cataract surgeons who also have a substantial number of patients with glaucoma, most of whom are well controlled on medical and laser therapy, the advances will undoubtedly revolutionize their practices. For the more traditional glaucoma specialists who spend most of their time taking care of patients with advanced and/or uncontrolled disease, the novel glaucoma procedures will have a smaller impact on practice patterns. While trabeculectomy may remain the most commonly performed standalone glaucoma filtration procedure, it will likely be replaced as the overall most commonly performed glaucoma procedure by one or more novel methods of lowering IOP used adjunctively with cataract surgery.”

You are reputed to mingle with celebrities. What are the most memorable of these experiences?

Having played the game since early childhood, I am a big soccer fan. In 1998, I was invited to Paris to hear the Three Tenors and watch the World Cup Soccer Final between France and Brazil. After the concert, I dined with about 100 other guests in a large tent adjacent to the Eiffel Tower where the concert had been held. I vividly remember discussing soccer with Henry Kissinger and joining Luciano Pavarotti and the other tenors in a debate of the pros and cons of soccer in Italy versus Spain, which is as relevant today as it was then, given that these two countries played in the 2012 European Championships final (Figure). Courtesy of the tenors, I had great seats for the match, which France won. The party that ensued was reportedly the largest in Paris since the end of World War II.
Dr. Singh predicts how microinvasive glaucoma surgery will affect ophthalmologists’ treatment of the disease and describes one of his star-studded evenings.

### How has your epidemiological training influenced your thinking about glaucoma and medical practice?

In my obviously biased opinion, epidemiology is the most important discipline in all of the medical sciences. A strong understanding of basic epidemiologic principles is essential for anyone who is interested in improving the health of any community, which is, of course, the ultimate goal of medicine. The time I spent at Johns Hopkins University studying epidemiology and biostatistics had a greater impact on my career than any other educational experience, and several of the mentors I met during that period—particularly Alfred Sommer, MD, MHS, and Hugh Taylor, MD—were terrific role models.

Epidemiologic training is also essential to fully understanding the dangers of pursuing research with preconceived notions about the associations between risk factors and disease. Prior to such training, I had assumed that, if someone designed and conducted a study appropriately, the interpretation of results would be straightforward and without controversy. Over the years, experience has made me more skeptical of this assumption. For example, take individuals who have long advocated that a particular IOP goal is optimal for glaucoma care or that one parameter of IOP such as peak or variability is independently predictive of disease progression. If they subsequently publish results to support these hypotheses, we should be careful in confirming those results to ensure that the data have been analyzed objectively rather than mined to support a preconceived conclusion.

Conflict of interest related to long-held beliefs is often given less attention than financial conflict of interest, but the former is at least as great a concern as the latter. With strong opposition from a few, I have long advocated that, after a few years following the completion of any government-funded clinical trial, the raw data from the study should be made available in the public domain, as is the case with other publicly funded studies such as the National Heath and Nutrition Examination Survey (NHANES). This transparency would minimize the likelihood of anyone’s getting away with, in the words of a colleague, “torturing the data until it confesses.”

### What spurs your involvement in educating medical students?

Mentorship is critical to the success of any endeavor, and in general, early mentorship experiences are the most valuable for those being mentored. Each of us can recall one person who was critical in our decision to pursue a career in medicine or to specialize in ophthalmology. I have had the privilege of working at a medical school that attracts some of the most talented students worldwide, and mentoring these individuals has been the single most rewarding academic experience of my career.

In addition to advising and writing letters in support of more than 50 medical students who have gone on to ophthalmology residency programs, it was a great pleasure for me to serve as an academic advising dean at the Stanford University School of Medicine from 2002 to 2005. Providing career guidance and writing Dean’s Letters for three graduating classes increased

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