

Intralase: Coming of Age

How femtosecond technology impacts the business side of refractive surgery.

BY SHAREEF MAHDAVI



This is the third in a series of articles that highlights results from market studies on topics of interest to refractive surgeons. These studies comprise original research conducted by SM² Consulting of Pleasanton, California.

Since its debut 10 years ago, LASIK has undergone numerous refinements in technology and technique. Lasers now incorporate refractive input data to generate customized ablation profiles, and flap creation has evolved from the original corneal shaper and successively more advanced microkeratomes to the highly sophisticated femtosecond laser.

During the past 3 years, my company, SM² Consulting, has been collecting business data from customers of Intralase Corp. (Irvine, CA) to better understand how the femtosecond laser impacts the financial side of the LASIK equation. Each spring, my staff and I send a survey to all US-based Intralase customers asking for their data on pricing, procedural volume, and marketing practices. We then compare customers' data using quarterly calendar periods from before they acquired the Intralase laser with what has occurred since they adopted the technology.

DEMOGRAPHICS

This year's study includes data from 81 different practices, a large sample that represents a diverse cross-section of practice type, size, and geography. The sample also represents more than half of the installed Intralase customer base in the US. Participation is voluntary, and we receive data from a different mix of practices each year. What follows are highlights that show what the typical Intralase customer has achieved since integrating the technology.

The Intralase surgeons surveyed have been using femtosecond technology for an aver-

age of 19 months, compared with an average of 22 months of experience with customized treatment technologies. In this survey, 41% of the practices are single-surgeon and 59% are multiple-surgeon or open-access.

FEE INCREASES

Most surgeons who acquire the Intralase FS Laser raise their prices for LASIK to offset the cost of investing in new technology. They typically do so either by increasing their list prices, creating a separate add-on fee, or reducing discounts. This year, the average fee increase reported was \$394 per eye, a level that is higher than what was reported in 2004 (\$334) or 2003 (\$338). This higher amount can be explained by the fact that one-fourth (20 of 81) of the respondents enacted additional price increases as they gained greater experience with the technology. For example, one practice originally had a separate and optional

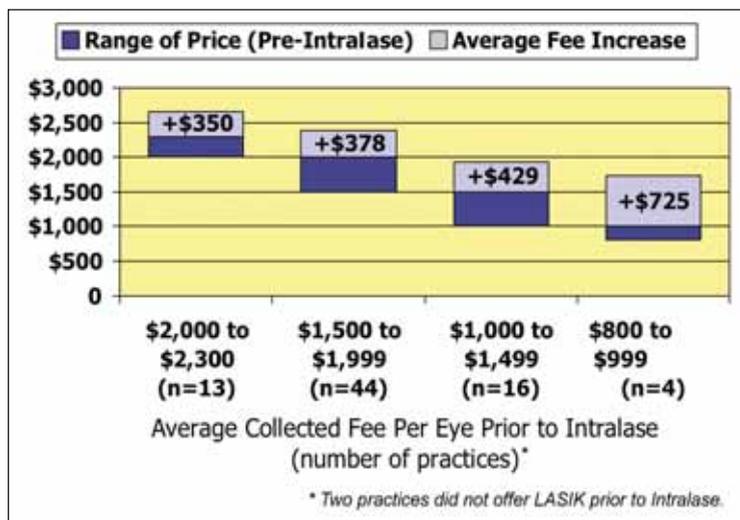


Figure 1. This chart shows fee increases for the Intralase technology, stratified according to the customer's average collected fee per eye for LASIK before adding Intralase. Those with prices above \$2,000 per eye raised their fees by an average of \$350. As the range of prices decreased, the average amount of the price increase rose.

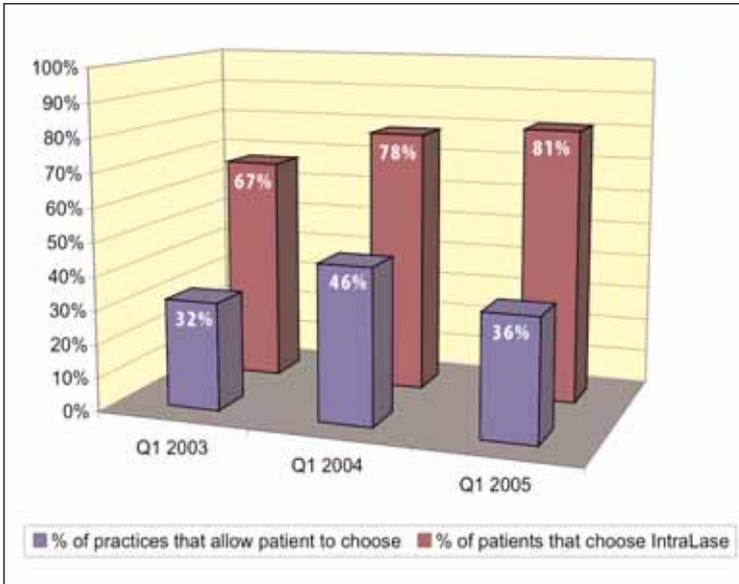


Figure 2. In practices that give patients a choice, more than 80% of patients chose to have and pay extra for the Intralase laser to make their LASIK flap. Just over one-third of practices offer this option, a decrease from last year and an indication that surgeons' confidence in their outcomes are leading more of them to abandon tiered pricing and consumer choice in favor of a simpler structure where Intralase is included in the price.

\$350 fee for those patients who chose to have their LASIK procedure begin with the laser. After 9 months, this practice realized that more than 90% of their patients were choosing Intralase, and they decided to eliminate the add-on fee and raise their list price for LASIK by \$500 (an additional increase of \$150). This decision simplified their pricing by eliminating patients' choices, making the discussion between patients and counselors that much easier. It's important to note that these reported fee increases were for the Intralase technology and separate from other fee increases (eg, customized wavefront).

We also wanted to understand if the ability to increase fees was limited to those practices with low prices to begin with; that is, those with the most "head room." For this analysis, we stratified the reported fee increase by average collected fees per eye prior to introducing Intralase (Figure 1). Those practices that originally had the highest average fees (more than \$2,000 per eye) were able to increase their prices again by an average of \$350. Practices with pricing above \$1,500 and above \$1,000 per eye raised their fees by \$378 and \$429, respectively. And, as expected, those with the lowest prices before purchasing the Intralase laser (less than \$1,000 per eye) were able to enact the largest fee increases, averaging \$725.

PATIENT CONVERSION

Just over one-third (36%) of respondents indicated that they allow patients to choose whether or not they want to have (and pay for) the Intralase technology to create their LASIK flap. This group of respondents indicated on average that 81% of their patients choose Intralase. As Figure 2 shows, this is an increase from 67% in 2003 and 78% in 2004. Conversely, the percentage of practices that make technology an option dropped significantly from last year, indicating that surgeons' experience and confidence with the Intralase technology are leading more of them to abandon tiered pricing and consumer choice in favor of a simpler structure that includes Intralase in the price.

One of the value propositions offered by the Intralase technology is its potential to help reduce patients' fear about LASIK surgery because of its excellent safety profile. Approximately half the customers (47%) reported an increase in their conversion rates of 13 points (from 65% to 78%).

These customers attribute their increase in conversion rates primarily to the Intralase technology. The other half of the Intralase customers indicated no measurable change, which is similar to last year's survey. When combined into a single group (Figure 3), Intralase customers experienced an increase from 69% to 76% or seven points, meaning for every 100 consultations, another seven patients (14 eyes) are scheduled for LASIK.

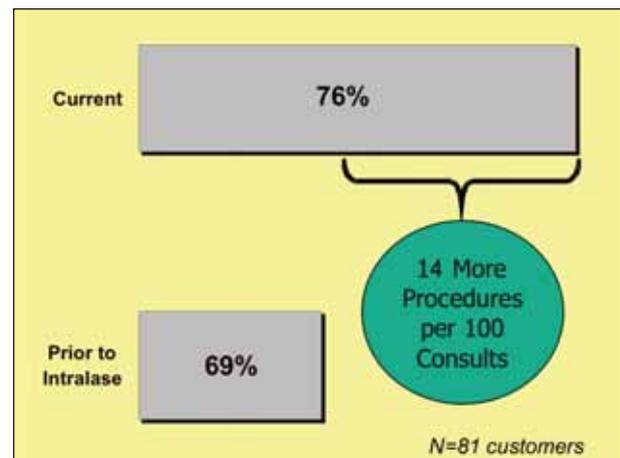


Figure 3. Intralase customers report that on average they are converting seven more consultations out of every 100 to surgery.

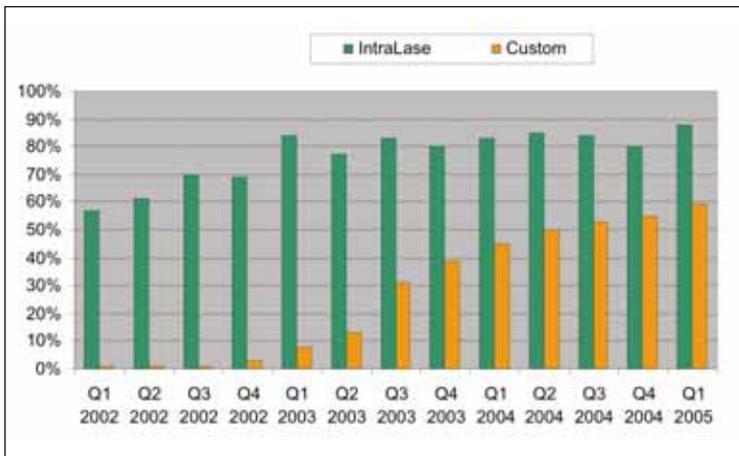


Figure 4. This chart shows the adoption rates of Intralase and customized ablation technologies. Intralase hit a record 88% of all cases performed by Intralase customers in the first quarter of 2005. The ratio has been in the 80%+ range for nearly 2 years. Customized ablations as a percentage are also growing, now at 59% of all cases performed by Intralase customers.

INTEGRATION WITH CUSTOM

One of the potential challenges for Intralase customers has to do with offering multiple improvements in technology and how to charge for them. In other words, surgeons have wondered if patients would pay higher rates for both Intralase and customized LASIK technology. As Figure 4 shows, the data indicate that the answer is yes. Intralase customers tend to use the femtosecond laser in nearly all of their LASIK cases; in the first quarter of 2005, that level reached 88% on average. This increase is a new high point for the technology and is remarkable given the large growth in the customer base and the historical tendency for new users to adopt more slowly. By comparison, these surgeons use customized ablation technology in 59% of their LASIK cases, also a new high point that is explained by new indications approved during the last year and increasing confidence in that technology. The important point is that these two technologies work synergistically; neither one cannibalizes the other, and they each play a role in making laser vision correction safer and better for patients.

IMPACT ON RETREATMENTS

We asked participants if Intralase had impacted their retreatment rates. Given that fluctuations in retreatment rates may reflect multiple factors, we asked customers

to assign a relative weighting to various influences on their retreatment rates. Intralase customers have seen a 40% decrease in retreatments, from an average of 10% to 6.1%, approximately four eyes per 100. Based on the data, it is reasonable to approximate that half of this decrease is due directly to the Intralase technology.

IMPACT ON REVENUE

Since acquiring the technology, Intralase customers have seen their revenue from LASIK increase by an average of 41%. This gain is the result of performing more procedural volume at higher prices. How does this revenue increase compare with industry averages? Although there is no perfect comparison available, if we take the year prior to customized ablation approval as a baseline time period for the industry, a best-case scenario would show that the

revenue from LASIK in the average practice has increased by 25% since customized approvals through the first quarter of 2005 (Figure 5).

ADDITIONAL PROFITABILITY

When evaluating technology investments, most surgeons want to understand the impact to marginal profit as well as to revenue. Clearly, using the Intralase device is more expensive than using a keratome and blade. But will it generate more gross profit? Using the data collected in the survey, we generated an analysis of per-eye revenue, costs, and profitability for practices perform-

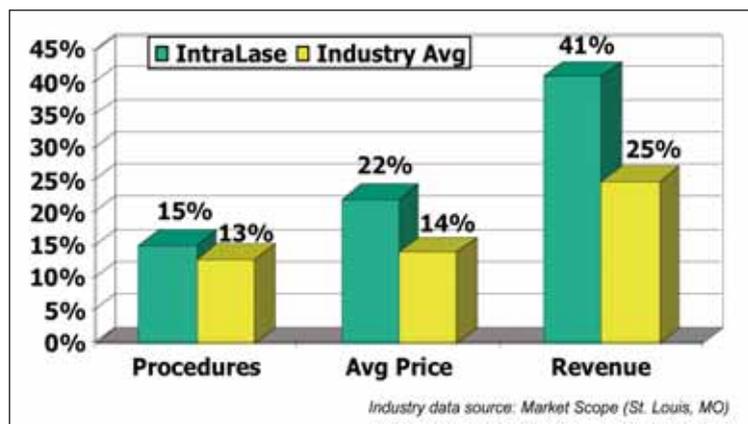


Figure 5. Through the first quarter of 2005, Intralase customers have seen their procedural volumes, average prices, and overall revenue rise significantly since acquiring the technology. Their rate of growth has been faster than the industry average, using the year prior to the approval of customized ablation technologies as a baseline.

Cataract & Refractive Surgery TODAY e-News



Subscribe to
Cataract & Refractive Surgery Today's e-News

A biweekly newsletter delivered directly to your e-mailbox contains news briefs and breaking news releases to keep you up-to-date between our print issues. Subscribing is easy and free. Simply e-mail us at eNews@bmctoday.com, type "Subscribe e-News" in the subject line, and include your name. You can unsubscribe at any time by clicking on the "unsubscribe" link in the e-Newsletter.

We look forward to hearing from you!

TODAY'S PRACTICE

Number of LASIK procedures per month	60	80	100
Increase in fees per eye	\$394	\$394	\$394
Additional expense of Intralase per eye	-312	-274	-251
Savings from blade and keratome service per eye	+46	+39	+38
Additional gross profit per eye	+\$125	+\$160	+\$181
Additional gross profit over a 60-month period	\$495,000	\$844,000	\$1,192,000
Breakeven = 32 eyes per month			

Figure 6. This graph shows Intralase customers' incremental profit per eye. During a 5-year period, Intralase customers at various procedural volume levels can expect to achieve higher gross profitability in spite of the greater expense of using the femtosecond laser.

ing 60, 80, and 100 LASIK procedures per month. Using a 5-year time horizon (Figure 6), gross profit increases by an amount ranging from \$125 to \$181 with each Intralase procedure performed. The minimum level of procedures required to break even is 32 procedures per month during a span of 5 years.

SUMMARY

From a research perspective, it has been fascinating to watch a new technology gain momentum in the marketplace and to be able to collect and report the data that comprise the business side of the story. Intralase has gone from a technology that was "interesting" to one that has become significant and essential to its customers. Clearly, the femtosecond laser has rekindled a great deal of the enthusiasm for refractive surgery that was lost in the first couple of years of this decade. What this study points out is that consumers are indeed willing to pay for what they perceive to be a better and safer approach to refractive surgery. It's a critical point, because it serves to balance the perspective that demand for refractive surgery is influenced by lower prices. Rather, Intralase and its customers have created a win-win situation by providing better technology at a higher price and seeing their businesses prosper. ■

Shareef Mahdavi draws on 20 years of medical device marketing experience to help companies and providers become more effective and creative in their marketing and sales efforts. Mr. Mahdavi welcomes comments at (925) 425-9963 or shareef@sm2consulting.com. Archives of his monthly column may be found at www.crstoday.com.