PATENT PERSPECTIVE IS KEY

Here's how some patients feel about SMILE compared with LASIK.

BY JODHBIR S. MEHTA, BSc(Hons), MBBS, FRCOphth, FRCS(Ed), FAMS

The small-incision lenticule extraction (SMILE) procedure has now been performed more than 1 million times worldwide. Comparative studies comparing SMILE outcomes to those of contemporary LASIK showed equivalent results in most areas with respect to safety and efficacy and superiority in certain areas such as ocular surface rehabilitation.[1]

PATIENT-REPORTED OUTCOMES

Recently, there has been growing interest in patient-reported outcomes from surgery. We now understand that surgeons should be focused not only on clinical outcomes but also on the patient experience. This is evident in many facets of life beyond ophthalmology, such as in the airline industry. Some companies have made significant strides in improving one's travel experience to a destination, as opposed to just getting the passengers there on time.

The Patient-Reported Outcomes With LASIK (PROWL) study provided useful information on the patient experience following LASIK surgery.[2] It reconfirmed, from patients' points of view, something that many refractive surgeons see every day from the majority of our refractive patients: They are happy with the results.

Especially in the era of social media, the following equation applies: overall outcome = achieved result (surgical + experience) – patient expectation. With patient expectations higher than ever, we have to improve the whole journey of their surgical experience.

SMILE VS LASIK

We recently published the results of a study comparing the intra- and postoperative subjective experiences of patients after SMILE and LASIK.[3] We used data from a randomized controlled trial in which patients had undergone LASIK in one eye and SMILE in the other.

We had previously published subjective outcomes in LASIK and SMILE patients showing minimal differences, but it is difficult to distinguish subtle differences in procedures unless you have the same patients undergoing both procedures.[4] This highlights the importance of using the correct trial design to answer relevant questions for any new procedure. Our randomization protocol allowed us to eliminate any issue of first-eye

syndrome, and all cases were done by the same surgeon, who was experienced in both LASIK and SMILE.

PATIENT FEARS

Interestingly, the most frightening part of the refractive procedure for most patients was the excimer ablation, which was rated moderate to very high. Patients also reported being more fearful of flap creation, with respect to docking and suction, compared with lenticule creation. As expected, patients who experienced suction loss had higher fear scores, although the difference did not reach statistical significance due to the low numbers. These results highlight the importance of reducing patient fears and anxieties before the refractive procedure.

There was also more fear during the first eye surgery than the second, highlighting the importance of study design. We found that patients had significantly less discomfort during the flap lift for LASIK compared with the lenticule manipulation for SMILE, but discomfort scores for both types of tissue manipulation were in the mild range.

SUMMARY

Our study revealed valuable information regarding patients' intraoperative experiences during SMILE and LASIK. The perception of flap creation seems more frightening than that of lenticule creation, and excimer ablation provoked the most fear among patients. The differences we observed may have been due to patients conceptualizing that a small-incision keyhole procedure is less scary than a procedure using a larger incision flap. The higher fear scores in the patients who had suction loss reemphasize the importance of

⏵ WATCH IT NOW

Dan Z. Reinstein, MD, MA(Cantab), FRCSC, DABO, FRCOphth, FEBO, presents an updated technique for performing SMILE in which the lenticule separation and extraction are done using a single instrument.
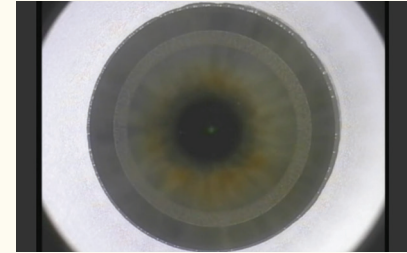
➤ BIT.LY/SMILENEWTECHNIQUE

preoperative counseling. By addressing patient fears and expectations before treatment, ophthalmologists may increase overall patient satisfaction.

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COMING OF AGE

There are several indications that SMILE has come of age:
▶ More studies are focusing on the nonrefractive outcomes of the procedure.
▶ Other companies have now made machines or are in the process of modifying software to allow their own systems to perform the SMILE procedure (personal communication).
▶ At scientific symposia, there are sessions on SMILE dedicated to discussing outcomes as well as complications and their management.
▶ Inventive concepts are being developed to advance SMILE further with respect to the software and the use of the lenticule (personal communication).