

Re-lifting the LASIK Flap 16 Years after Primary Surgery

Moemen Al Reefy, MD, FRCSI, FRCOphth*
Seemantini Ayachit, MD, MSc Ophth**

ABSTRACT

A forty-six-year-old Bahraini male patient presented with diminished vision in both eyes; he had a history of standard LASIK surgery 16 years ago to treat myopia and astigmatism. The pre-operative refraction was -5.50 D sphere, -2.00 D cylinder × 180° in the right eye and -5.00 D sphere, -2.00 D cylinder × 160° in the left eye.

The original LASIK flap was re-lifted successfully after 16 years of primary LASIK surgery. Therefore, this will save the cornea from further incision.

Enhancement laser treatment was performed for residual myopia and astigmatism after lifting a 16-year-old LASIK flap at King Hamad University Hospital, Bahrain.

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INTRODUCTION

LASIK and FEMTO LASIK procedures are increasingly getting popular amongst general population as safe and effective surgeries to treat refractive errors¹. At times, the patient needs a second procedure to enhance the previous visual outcomes². It was thought that re-lifting the original LASIK or FEMTO LASIK flap is a safer option than re-cutting a new flap³. Also, the gap between the two surgeries is an important consideration. Most of the time, the re-treatments are within few months or few years of the first surgery⁴.

THE CASE

A forty-six-year-old Bahraini male patient presented with diminished vision in both eyes; he had history of standard LASIK 16 years ago. On examination, his Best Corrected Visual Acuity was 6/6 in both eyes with -1.50 cylinder 180° and 160° respectively. Anterior segment examination was within normal limits and well-healed corneal flaps. fundal examination revealed no abnormality and intraocular pressure was 16 mm and 14 mm of mercury. He was planned for enhancement by lifting the original flap manually. The surgery went smoothly and the flaps could be re-lifted without any resistance as in the first surgery, see figure 1.

* Head of Department of Head and Neck
Consultant & Head of Department of Ophthalmology

** Registrar in Ophthalmology
King Hamad University Hospital
E-mail: moemen.alreefy@khuh.org.bh

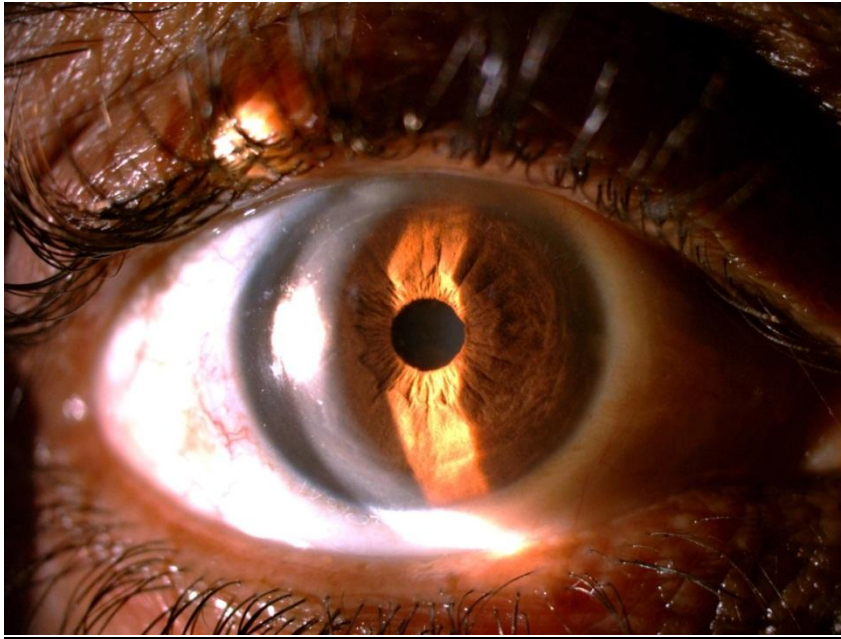


Figure 1: Re-lifting of 16-Year-Old LASIK Flap

Post-operative Uncorrected Visual Acuity was 6/6 in both eyes and the cornea was crystal clear on first postoperative day, see figure 2. The patient was discharged with standard post LASIK treatment regimen of Tobradex and lubricant eye drops 3 times a day for 2 weeks.

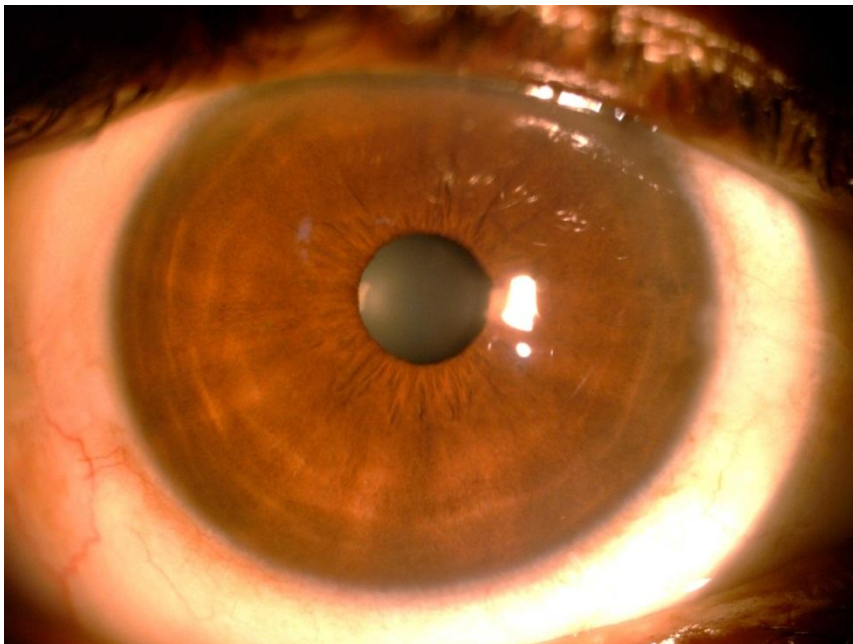


Figure 2: First Post-Operative Day after Re-lifting of 16-Year-Old LASIK Flap

DISCUSSION

LASIK is the most popular refractive procedure worldwide in the last two decades⁵. However, residual myopia and astigmatism are not uncommon complications⁶.

Enhancement after primary LASIK procedure is the ultimate therapy for unresolved residual refractive errors⁷. Re-treatment is achieved by lifting the primary flap or re-cutting corneal

stroma with automated microkeratome or Femto second Laser flap⁸. It is a usual practice in refractive surgery to consider lifting the flap after one year⁹.

To the best of our knowledge, no LASIK flap has been lifted after 16 years from the primary LASIK procedure. MEL-80 Zeiss Laser was used for the enhancement laser ablation.

CONCLUSION

Re-lifting the original flap can be as easy as the first LASIK surgery and it also reduces the risk of corneal complications, such as surface irregularity and sub flap infiltrates. One should try and lift the original flap for enhancement procedures post LASIK or Femto LASIK instead of cutting a new flap and creating another stromal interface.

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