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Flap Wrinkling or Dislodgement After LASIK

Lam *et al.* reviewed the management of 4 patients in Hong Kong with severe flap wrinkling or dislodgement after laser *in situ* keratomileusis (LASIK). After surgical repositioning of the flap, flap status, refractive changes, and final uncorrected and best-corrected visual acuities were used to evaluate the outcome.

Flap repositioning required suturing for 2 patients, 1 of whom developed severe epithelial in-growth with melting of the corneal flap and stromal bed, eventually requiring flap removal. The stromal inflammation resolved, and the corneal surface re-epithelialised after flap excision. Wedge-shaped tissue excision from the superior portion of the corneal flap was necessary for the other 2 patients to allow better flap realignment. The corneal flap was eventually converted to a free cap to correct residual wrinkling for 1 of the patients. At a mean follow-up of 15 months, the postoperative uncorrected visual acuity ranged from 20/20 to 20/60, and the best spectacle-corrected visual acuity was 20/30 or better for all patients.

The authors concluded that flap dislodgement and wrinkling are serious postoperative complications of LASIK. Early recognition of these complications and prompt surgical management are crucial to achieve a successful surgical and visual outcome.

Lam DS, Leung AT, Wu JT, *et al.* Management of severe flap wrinkling or dislodgment after laser *in situ* keratomileusis. *J Cataract Refract Surg* 1999;**25**:1441-1447.

Corneal Flap Formation in LASIK

A study of 65 pig eyes was performed to determine the effects of microkeratome-cutting velocities and the suction ring on corneal flap creation. Keratometric diopters (D) were measured before and after application of the suction ring. Corneal thickness was measured before and after resection cutting, and the difference was taken as flap thickness. The microkeratome was initially set at a resection thickness of 160 microns. The blade oscillation (turbine velocity) was set at 30, 35, and 42 psi. The translational velocity was arbitrarily divided into high (1 to 2 seconds), moderate (3 to 5 seconds), and low (6 seconds or more). Data were analysed by consecutively varying the velocities. Photographs of the cut surface were acquired by scanning electron microscopy to evaluate resection morphology by comparison.

Mean refractive powers (± SD) were 39.94 ± 0.66 D and 39.69 ± 0.98 D before and after application of the suction ring, respectively, (not significant). Lower surgeon translational velocity resulted in a significantly thicker corneal flap in 8 of the 9 paired comparisons ($p < 0.05$). Higher turbine velocity resulted in a significantly thicker corneal flap in 7 of the 9 paired comparisons ($p < 0.05$). The cut surface was smoother at higher turbine and lower translational velocity. The initial cut margin was steeper at higher translational velocity.

The increase in intraocular pressure induced by the suction ring had no significant effect on keratometric power. At higher turbine and lower translational velocities, the corneal flap was thicker and the cut surface smoother. Higher translational velocities made the initial cut margin steeper.

Kim YH, Choi JS, Chun HJ, Joo CK. Effect of resection velocity and suction ring on corneal flap formation in laser *in situ* keratomileusis. *J Cataract Refract Surg* 1999;**25**:1448-1455.

Clinical Diagnosis of Infectious Trachoma in Nepal

The World Health Organization (WHO) Alliance for Global Elimination of Trachoma by 2020 has increased the need to identify ocular chlamydial infections by clinical examination in areas of both high and low prevalence. The relationship between clinically active trachoma (as defined by clinical examination) and chlamydial infection is confirmed for areas with hyperendemic trachoma, but not for areas with a low prevalence of clinical disease. In this study, Baral *et al.* examined, photographed, and tested the DNA of the conjunctivae of children in an area of Nepal known to have a low prevalence of clinically active trachoma.

Although 6% of children younger than 10 years were found to have clinically active trachoma, none were found to have chlamydial infection by the most sensitive DNA amplification tests available. A low prevalence of clinically active trachoma is not necessarily evidence of the presence of chlamydial infection. Therefore, the WHO policy of not recommending an intensive trachoma control effort when the prevalence of clinically active trachoma is less than 10% in children is appropriate for this area of Nepal.

Baral K, Osaki S, Shreshta B, *et al.* Reliability of clinical diagnosis in identifying infectious trachoma in a low-prevalence area of Nepal. *Bull WHO* 1999;**77**:461-466.