

Incidence of corneal infections after laser in situ keratomileusis and surface ablation when moxifloxacin and tobramycin are used as postoperative treatment.

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Abstract

PURPOSE:

To assess the incidence, culture results, and visual outcomes of infectious keratitis after laser in situ keratomileusis (LASIK) and surface ablation when topical moxifloxacin was added to postoperative prophylaxis with tobramycin.

SETTING:

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DESIGN:

Retrospective case series review.

METHODS:

The medical records of 55 255 patients (108 014 eyes) who had LASIK and surface ablation were reviewed to identify cases of infectious keratitis. The incidence, risk factors, clinical course, days to diagnosis, treatment, and final visual outcomes were recorded. These data were compared with previously published data of 221 437 eyes that received postoperative tobramycin alone.

RESULTS:

Post-LASIK infectious keratitis was diagnosed in 10 eyes (9 patients) and post-surface ablation infectious keratitis in 11 eyes (10 patients). The onset of infection was early in 40.00% of cases after LASIK and in 36.36% after surface ablation. Cultures were positive in 2 cases after surface ablation. Immediate flap lifting and irrigation with antibiotics were performed in all eyes after LASIK. The final corrected distance visual acuity was 20/20 or better in 7 cases after LASIK (70.00%) and 7 cases after surface ablation (63.64%) and 20/40 or better in all cases after LASIK or surface ablation.

CONCLUSIONS:

The incidence of infectious keratitis decreased from 0.025% to 0.011% ($P < .001$) per procedure after LASIK and from 0.200% to 0.066% ($P < .001$) after surface ablation. Infectious keratitis was less frequent after LASIK than after surface ablation. The frequency of infection, mainly early-onset infection, was lower when the postoperative treatment was tobramycin and moxifloxacin rather than tobramycin alone.