

Título: Epithelial Ingrowth Following Laser In Situ Keratomileusis with Mechanical Debridment and Compressed Heating Air Flow: case series

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Introduction

Epithelial ingrowth is still an important issue in modern refractive surgery, leading to unsatisfying results from a continuous foreign-body sensation, irregular astigmatism, decrease visual acuity and flap melting. The report incidence varies in the literature from 0% to 20% following laser in situ keratomileusis (LASIK) cases.¹⁻⁴ Although epithelial ingrowth is frequently self-limiting and can be observed without requiring intervention, in a small number of cases epithelial ingrowth may progress with permanent visual loss.⁵

Purpose

To describe the clinical outcomes of manual scraping of epithelial ingrowth followed by compressed heating air flow after laser in situ keratomileusis (LASIK)

Design

Retrospective, noncomparative, interventional case series

Methods

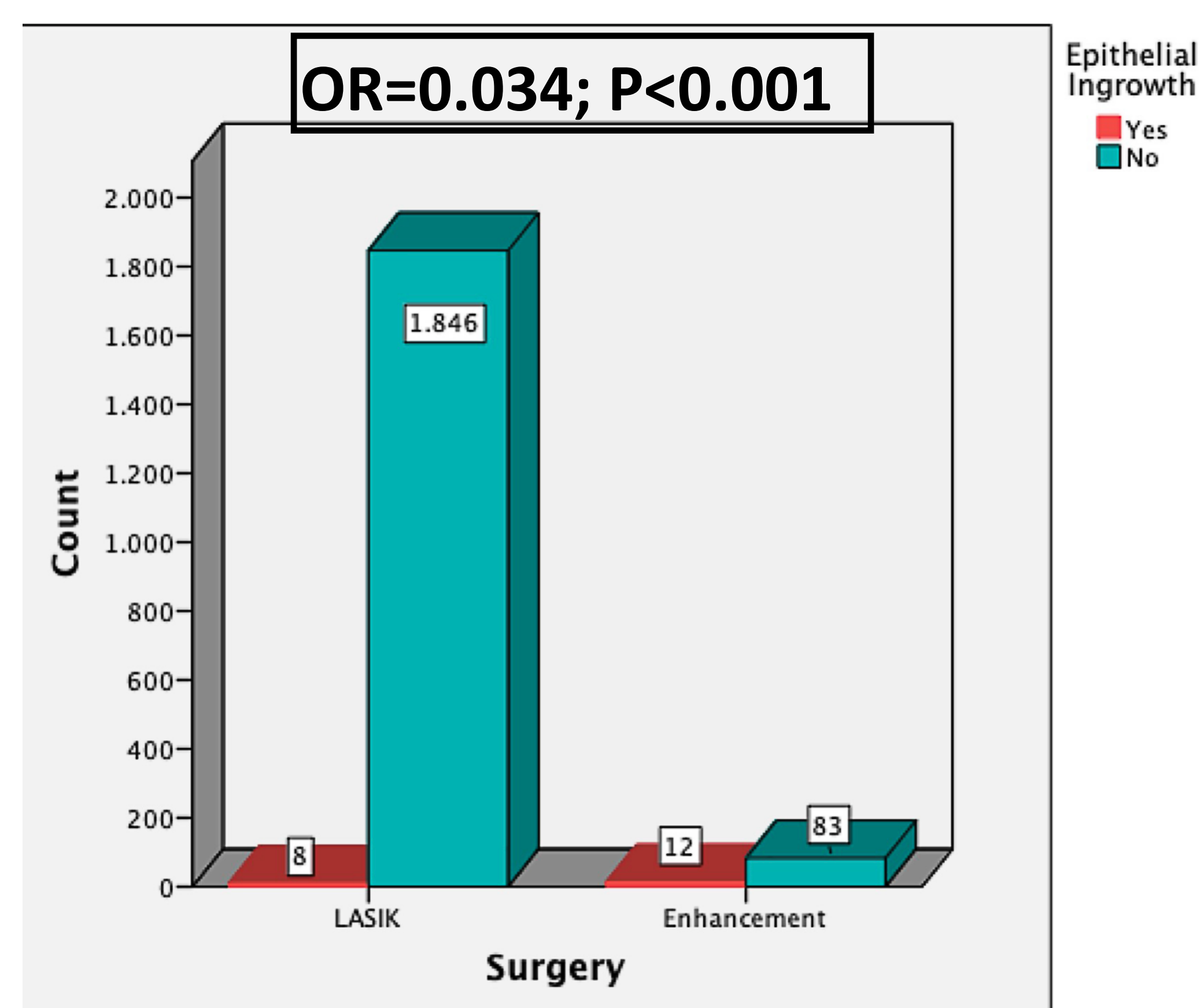
Twenty eyes of 17 patients were included in this study. Each patient with a history of LASIK was assigned to epithelial removal with mechanical debridement followed by compressed heating air flow application.

Primary outcome measure was the recurrence of epithelial ingrowth after 3 months of follow-up.

Secondary outcomes were uncorrected distance visual acuity (UCVA), corrected distance visual acuity (CDVA), and complications after surgery.

Results

- The review comprised 1854 cases of LASIK during the 5-year study period.
- The incidence of epithelial ingrowth after primary LASIK in the present study was 0.43% (8 eyes).
- The incidence after enhancement treatment (flap-lift retreatment LASIK) was 12 eyes of 95 eyes (12.6%)



Results

- 10 MEN (58.8%) x 7 WOMEN (41.2%)
- Mean patient age at the time of epithelial ingrowth treatment was 37 ± 9.3 years (SD) (range 24 to 55 years)
- Median interval between LASIK and epithelial ingrowth treatment was 85.1 ± 98 days (range, 15 days to 270 days).
- The epithelial ingrowth was detected at the 1-month postoperative visit in 12 eyes (60%) of 20 eyes. The mean time between the primary procedure and the enhancement was 103 ± 50.2 days (range, 33 to 180 days).
- All eyes received a diagnosis of clinically significant epithelial ingrowth, and the most commons indications for the epithelial ingrowth were corneal irregularities causing symptoms such as halos, glare, or reduced visual acuity, and chronic foreign-body sensation
- There was recurrence of ingrowth in two eyes (10%) after 3 months of follow-up
- Mean CDVA of patients before surgery was 0.07 ± 0.09 logMAR, and after the last follow-up was 0.02 ± 0.04 logMAR (P=0.06).
- The odds ratio of presenting with epithelial ingrowth after LASIK enhancement compared to primary LASIK was 29.41.

Conclusion

Manual scraping followed by compressed heating air flow is a safe and effective treatment for clinically significant epithelial ingrowth after LASIK. There is an increase in the incidence of epithelial ingrowth from 0.43% to 12.6% in LASIK enhancement patients.

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