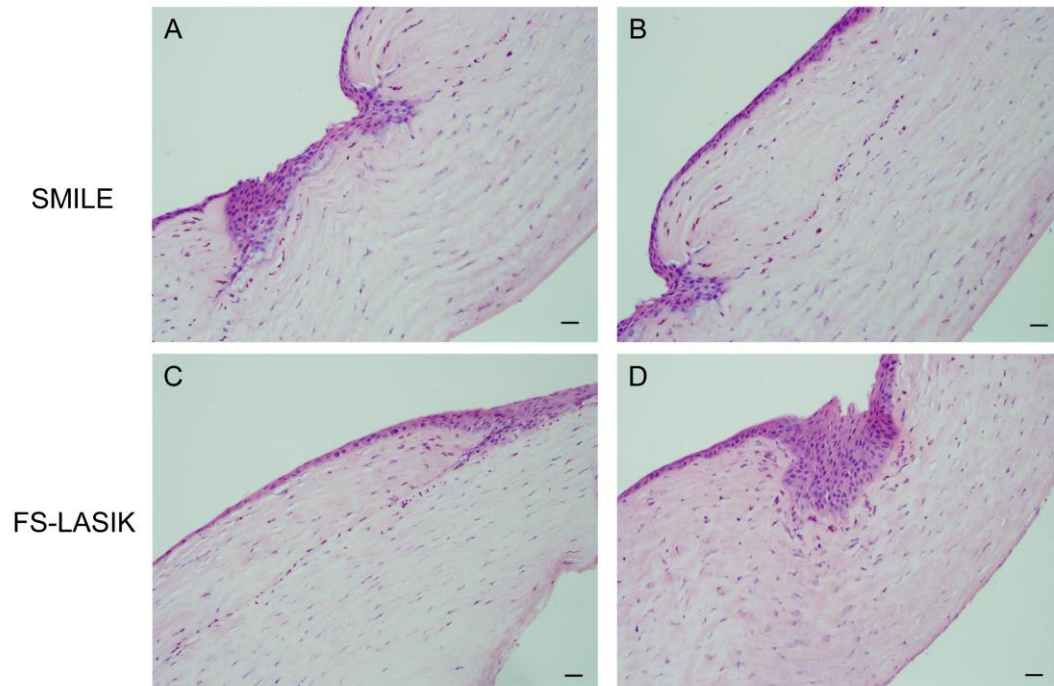


Supplemental Data

The rabbit cornea was histologically assessed by H&E staining to reveal the characteristics of the 24-hour postoperative changes. After euthanizing, the corneas were fixed with 4% paraformaldehyde and embedded in paraffin wax blocks cut into 5- μ m-thick sections. H&E staining was performed after the sections were deparaffinized and rehydrated. The images were observed under a light microscope (Olympus Corporation, Tokyo, Japan) and captured for analysis. Results revealed that at 24 hours postoperatively, the epithelial cells around the incision showed mild proliferation after SMILE (A), whereas more epithelial hyperplasia was detected at both nasal flap hinge and the edge of the shrunken flap after FS-LASIK (C & D). Clear Boundary was observed between the cornea cap or flap and the residual bed after SMILE or FS-LASIK (B & C), respectively. In addition, the increased number of activated keratocytes was observed as spindle- or star-shaped in the anterior stroma around the incision and flap edge.



Morphology of the rabbit cornea section at 24 hours after SMILE and FS-LASIK. **(A-B)** H&E staining of incision created at 12 o'clock **(A)** and the ablated area around the incision **(B)** of the rabbit cornea underwent SMILE. **(C-D)** H&E staining of flap hinge at the nasal area **(C)** and flap edge at the temporal area **(D)** of the rabbit cornea underwent FS-LASIK. (scale bar: 100 μ m)