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Conference Paper**Cited By**This article has been cited
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is cited in Scopus**Intraoperative microkeratome complications in 47,094 laser in situ keratomileusis surgeries**[Nakano, K.](#)^{a b} , [Nakano, E.](#)^a, [Oliveira, M.](#)^a, [Portellinha, W.](#)^a, [Alvarenga, L.](#)^a ^a Excimer Laser Santa Cruz, São Paulo, Brazil^b Rua Santa Cruz 398, São Paulo, CEP 04122-000, Brazil**Abstract**

PURPOSE: We evaluated the incidence and intraoperative microkeratome-related complications in laser in situ keratomileusis (**LASIK**). **METHODS:** We present non-randomized, retrospective, comparative, interventional case series. We reviewed the records of patients who underwent **LASIK** from August 2000 to March 2004 at Excimer Laser Santa Cruz, São Paulo, Brazil (47,094 eyes). We identified 369 eyes (0.0078%) with an intraoperative complication. Data were collected regarding microkeratome, average keratometric power, and type of complication. **RESULTS:** The Hansatome microkeratome was the most common microkeratome used (34,182 eyes; 73%), followed by the Automated Corneal Shaper-ACS (11,164 eyes, 24%) and the Nidek MK-2000 (1748 eyes, 3.7%). Intraoperative complications were more common with the ACS (1.26%) than with the Hansatome (0.63%) and MK-2000 (0.63%) ($P < .001$; $P = .03$; respectively). Complications included incomplete flaps (0.23%), buttonholes (0.13%), thin flaps (0.08%), and free flaps

(0.08%). Buttonholes were more frequent with the ACS (0.34%) than with the Hansatome (0.06%) ($P < .001$) and free flaps were more common with the ACS (0.20%) and MK-2000 (0.29%) than with the Hansatome (0.04%) ($P < .001$). Keratometric power of eyes with intraoperative complications was significantly higher in the ACS group compared to the Hansatome group. **CONCLUSIONS:** Intraoperative complications were more common with the ACS than with the Hansatome or MK-2000. Buttonholes were most frequent with the ACS, and the Hansatome had the lowest incidence of free flaps.

References (14)

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1. [Solomon, R., Donnenfeld, E.D., Perry, H.D.](#)
Photorefractive Keratectomy with Mitomycin C for the Management of a LASIK Flap Complication Following a Penetrating Keratoplasty
 (2004) *Cornea* 23 (4) pp. 403-405
 2. [Jabbur, N.S., Myrowitz, E., O'Brien, T.P.](#)
Outcome of second surgery in LASIK cases aborted due to flap complications
 (2004) *Refractive Surgery Center Wilmer Eye Institute Johns Hopkins Univ. Sch. of Medicine Baltimore, MD Journal of Cataract and Refractive Surgery* 30 (5) pp. 993-999
 3. [Jacobs, J.M., Taravella, M.J.](#)
Incidence of intraoperative flap complications in laser in situ keratomileusis
 (2002) *Journal of Cataract and Refractive Surgery* 28 (1) pp. 23-28 [Cited 18 times](#)
 4. [Waring III, G.O., Carr, J.D., Stulting, R.D., Thompson, K.P., Wiley, W.](#)
Prospective randomized comparison of simultaneous and sequential bilateral laser in situ keratomileusis for the correction of myopia
 (1999) *Ophthalmology* 106 (4) pp. 732-738 [Cited 26 times](#)
 5. [Gimbel, H.V., Anderson Penno, E.E., Van](#)

- [Westenbrugge, J.A.](#), [Ferenowicz, M.](#), [Furlong, M.T.](#), [Clinch, T.E.](#)
Incidence and management of intraoperative and early postoperative complications in 1000 consecutive laser in situ keratomileusis cases
 (1998) *Ophthalmology* 105 (10) pp. 1839-1848 [Cited 135 times](#)
6. [Stulting, R.D.](#), [Carr, J.D.](#), [Thompson, K.P.](#), [Waring 3rd., G.O.](#), [Wiley, W.M.](#), [Walker, J.G.](#)
Complications of laser in situ keratomileusis for the correction of myopia.
 (1999) *Ophthalmology* 106 (1) pp. 13-20 [Cited 182 times](#)
7. [Knorz, M.C.](#), [Jendritza, B.](#), [Hugger, P.](#), [Liermann, A.](#)
Komplikationen der laser-in-situ-keratomileusis (LASIK)
 (1999) *Ophthalmologie* 96 (8) pp. 503-508 [Cited 13 times](#)
8. [Walker, M.B.](#), [Wilson, S.E.](#)
Lower intraoperative flap complication rate with the Hansatome microkeratome compared to the Automated Corneal Shaper
 (2000) *Journal of Refractive Surgery* 16 (1) pp. 79-82 [Cited 22 times](#)
9. [Sarkisianm, K.A.](#), [Petrov, A.A.](#)
Experience with the Nidek MK-2000 microkeratome in 1220 cases
 (2001) *Journal of Refractive Surgery* 17 (2 SUPPL.) [Cited 6 times](#)
10. [Ito, M.](#), [Hori-Komai, Y.](#), [Toda, I.](#)
Risk factors and retreatment results of intraoperative flap complications in LASIK
 (2004) *Journal of Cataract and Refractive Surgery* 30 (6) pp. 1240-1247
11. [Tham, V.M.-B.](#), [Maloney, R.K.](#)
Microkeratome complications of laser in situ keratomileusis
 (2000) *Ophthalmology* 107 (5) pp. 920-924 [Cited 44 times](#)

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12. [Leung, A.T.S.](#), [Rao, S.K.](#), [Cheng, A.C.K.](#), [Yu, E.W.Y.](#), [Fan, D.S.P.](#), [Lam, D.S.C.](#)
Pathogenesis and management of laser in situ keratomileusis flap buttonhole
 (2000) *Journal of Cataract and Refractive Surgery* 26 (3) pp. 358-362 [Cited 13 times](#)
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13. [Lin, R.T.](#), [Maloney, R.K.](#)
Flap complications associated with lamellar refractive surgery
 (1999) *American Journal of Ophthalmology* 127 (2) pp. 129-136 [Cited 97 times](#)
[Abstract + Refs](#) [View at Publisher](#)
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14. [Gimbel, H.V.](#)
Flap complications of lamellar refractive surgery
 (1999) *American Journal of Ophthalmology* 127 (2) pp. 202-204 [Cited 11 times](#)
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