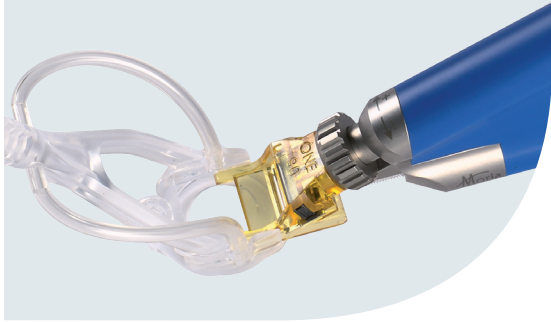


One Use-Plus SBK



N°16 - Highlights from Summer 2011 ARVO-SECOIR-PAAO meetings



26 Congreso SECOIR

Valencia, 25-28 de mayo, 2011



29° Congreso Panamericano
de Oftalmología
7 al 9 de Julio de 2011
6 de Julio: Precongreso



This Summer's meetings still confirm the increasing interest to Sub Bowman's Keratomileusis (SBK) for the creation of thin and planar LASIK flaps.

Here we'll review SBK results presented at last ARVO, SECOIR and PAAO meetings:

- ARVO: Changbin Zhai et al., comparing Moria SBK to IntraLase® SBK flaps
- SECOIR: CareVision Amsterdam and Baviera Spain experience with Moria SBK
- PAAO: Neves et al. and his first 200 Moria SBK procedures.

Moria One Use-Plus SBK: performance in achieving THIN flaps

Surgeon	Flap measuring technology	Keratome	# of eyes	Mean accuracy (microns)	Standard deviation (microns)	Range (microns)
Neves et al. ¹	AS-OCT (Visante®, Zeiss) (1 week postop)	One Use-Plus SBK	First 200 eyes of 100 patients	105.6	± 7.8	83 - 125
Bilbao Calabuig et al. ²	Ultrasound pachymetry (substractive method)	One Use-Plus SBK	First 93 eyes of 47 patients	86.1	± 13.9	N/A
Muzzin et al. ³	AS-OCT	One Use-Plus SBK	Routine results	90-100	N/A	N/A
Changbin Zhai et al. ^{4,5}	AS-OCT (1 month postop)	One Use-Plus SBK	44	113.0	± 4.9	N/A
		IntraLase®	59	110.8	± 2.2	N/A
Gómez Toledo et al. ⁶	Ultrasound pachymetry (substractive method)	IntraLase®	337	Intended 100µm → obtained in only 21% of cases Intended 120µm → obtained in 79% of cases ➔ Achieving the desired flap thickness with femto is less likely with a target of 100 microns than with targets of thicker thickness.		

Table 1: Flap results obtained with One Use-Plus SBK¹⁻⁵ compared to femtosecond lasers⁴⁻⁶

Moria One Use-Plus SBK: performance in achieving PLANAR flaps

Surgeon	Flap measuring technology	Keratome	# of eyes	Central flap (microns)	Peripheral flap (microns)
Neves et al. ¹	AS-OCT (Visante®, Zeiss) (1 week postop)	One Use-Plus SBK	First 200 eyes of 100 patients	105.6 ± 7.8	<ul style="list-style-type: none"> • <10-µm difference from center and periphery • in both vertical and horizontal meridians
Muzzin et al. ³	AS-OCT	One Use-Plus SBK	Routine results	90-100	
Changbin Zhai et al. ^{4,5}	AS-OCT (1 month postop)	One Use-Plus SBK	44	113.8 ± 8.1	<ul style="list-style-type: none"> • paracentral: 111.9 ± 5.2µm • peripheral: 113.8 ± 4.8µm
		IntraLase®	59	111.2 ± 3.3	<ul style="list-style-type: none"> • paracentral: 111.1 ± 2.9µm • peripheral: 110.3 ± 3.4µm

Table 2: Flap planarity obtained with One Use-Plus SBK¹⁻³⁻⁵ compared to femtosecond lasers⁴⁻⁵

One Use-Plus SBK: reliability without femto complications

Surgeon	Keratome	# of eyes	Complications
Neves et al. ¹	One Use-Plus SBK	First 200 eyes of 100 patients	<ul style="list-style-type: none"> • No intraoperative flap complications • No postoperative flap complications • No DLK • No aborted procedure
Bilbao Calabuig et al. ²	One Use-Plus SBK	First 93 eyes of 47 patients	<ul style="list-style-type: none"> • 1 case of DLK grade I • 1 case of striae at Day 1 postop with no impact on visual outcomes • No aborted procedure
Muzzin et al. ³	One Use-Plus SBK	Routine results	<ul style="list-style-type: none"> • No intraoperative flap complications • No postoperative flap complications
Kymionis et al. ^{7,8}	IntraLase® 150kHz	Case report: 2 eyes of 1 patient	Programmed 100-µm flap → unintended epithelial flap creation in both eye: <ul style="list-style-type: none"> • OD: 54-micron flap • OS: 52-micron flap
		Case report: 1 eye of 1 patient	Programmed 110-µm flap in OD: <ul style="list-style-type: none"> • obtained 139-µm flap • central irregular stromal interface under the flap
Tomita et al. ⁹	IntraLase®	436 eyes of 252 patients	Anterior chamber gas bubbles: 4.4% (19 eyes of 18 patients)

Table 3: Reported flap complications obtained with One Use-Plus SBK¹⁻³ compared to femtosecond lasers⁷⁻⁹



This Summer the Moria One Use-Plus SBK microkeratome has demonstrated – again -very good results in the creation of predictable thin and planar flaps¹⁻⁶ with a very high level of safety¹⁻³. It allows refractive surgeons to provide safe surgeries for patients with a unique fully single-use solution. In the comparative study, FemtoLASIK flaps and Moria SBK flaps were not statistically different in terms of thickness in the center and periphery⁴⁻⁵.

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None of the authors has financial interest in the One Use-Plus SBK microkeratome or is a paid consultant for Moria.

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- Visante® is a product and registered trademark of Carl Zeiss Meditec (Jena, Germany).

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