



Novel Dual Blade Device for Ab Interno Trabeculotomy

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Purpose: To evaluate the effect of ab interno trabeculotomy performed with a novel Dual Blade device (New World Medical, Inc., Rancho Cucamonga, CA) on safety and glaucoma medications in patients *with controlled IOP*.

Method: Eighteen consecutive patients with diagnoses of open-angle or angle-closure glaucoma requiring phacoemulsification for cataract removal were scheduled for *ab interno trabeculotomy with a novel Dual Blade device*. Preoperative and postoperative IOP and number of glaucoma drops were recorded. Degree of trabecular meshwork excised was also noted.

Results:

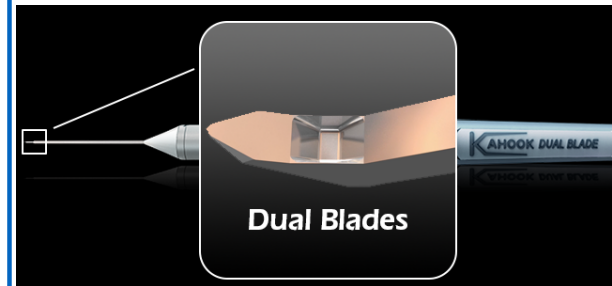
On average, **124° ± 36 degrees of trabecular meshwork were excised.**

	Preop (n=18)	Month 1 (n=18)	Month 3 (n=13)
Medications	2.3 ± 1.1	0.3 ± 0.8 (p < 0.001)	1.2 ± 1.0 (p < 0.001)
IOP	14.7 ± 4.3 mm Hg	14.3 ± 4.2 (p=0.54)	11.5 ± 2.4 mm Hg (p=0.03)

two-tailed paired student’s t-test was used to calculate p values.

Complications: **Blood reflux** from Schlemm’s Canal was observed in all 18 patients intraoperatively, indicating patent distal outflow channels. Postoperative hyphema was observed in 2 eyes and resolved by month one.

Conclusion: The Dual Blade device appears to be safe and effective at lowering dependence on glaucoma medications in the short-term postoperative period. A trend towards IOP reduction was also observed. The disposable device allows for cost-effective intervention in glaucoma patients who are burdened with using several drops for IOP control. Longer term follow-up in a larger cohort of patients is necessary to assess the safety and efficacy profile of this procedure.



Disclosures: Dr. Kahook is the inventor and holds patent rights to the device. Dr. Lazcano-Gomez, Dr. Gil-Carrasco, and Dr. Jiménez-Román are consultants to New World Medical. Suhail Abdullah is an employee of New World Medical. Dr. Turati-Acosta reports no relevant financial interest.

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