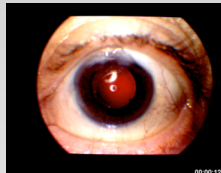


SELECTIVE LASER TRABECULOPLASTY IN PREVIOUSLY OPERATED EYES FOR CATARACTS AND/OR GLAUCOMA

Benítez-del-Castillo J, Molina E, Molina E, Mota I.
Hospital General del S.A.S. de Jerez, Jerez (Cádiz), ESPAÑA.

Objective

To evaluate effectiveness and safety of selective laser trabeculoplasty in previously operated eyes for cataract and/or glaucoma (trabeculectomy) needed for ocular hypotensive medication.



Methods

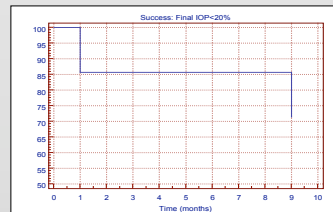
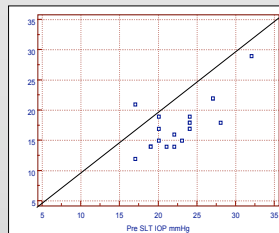
A prospective study of 21 eyes (10 eyes operated for cataract, 10 operated for glaucoma and 1 eye for both) of 14 patients with follow-up time of 9 months who underwent to SLT "Solo" ELLEX (standard protocol 180°). Kaplan-Meier survival curves have been designed and compared with Logrank test. Predictive factors have been analysed with Cox proportional-hazards regression.

Results

Mean base IOP is 22.5 mmHg (SD 3.8) and final IOP is 17.3 mmHg (SD 3.8) after 9 months follow-up. Mean difference is 5.1 mmHg (22.8% reduction) which is statistically significant ($P < 0.0001$). In cataract operated eyes mean difference between base and final IOP is 4.6 mmHg (21.5%) which is statistically significant ($P = 0.0037$). In glaucoma operated eyes mean difference between base and final IOP is 5.6 mmHg (23.8%) which is statistically significant ($P < 0.0001$). Attending to a success criteria of final IOP achieving a reduction of equal or more than a 20% of base IOP Kaplan survival curves are designed and compared between groups and no significant statistically differences are found. Low and similar rate of complications between groups. After analysing different factors as predictors of final IOP only IOP measured in the first week from treatment seem to do it in a statistically significant level.

Sample:			
Nº Eyes:	21		
Patients:	14		
Sex:	Male:	Female:	
	8	6	
Age mean (SD)	67.9 (2.7)		
Follow-up Time	9 months		
Pachymetry U.S. (SD)	545.9 microns (23.8)		
Previous Surgery:	Cataract:	TBLT:	Both:
	10	10	1
Eye Color (Iris):	Light:	Dark:	
	6	15	

Total Sample:	PreTTº (S.D.):	PosTTº (S.D.):	Red. (%):	Stat. Sig.
IOP mmHg	22.5 (3.8)	17.3 (3.8)	5.1 (22.8%)	$P < 0.0001$
Meds. Nº	1.9 (0.8)	1.04 (0.7)	0.9 (47.3%)	$P = 0.0001$



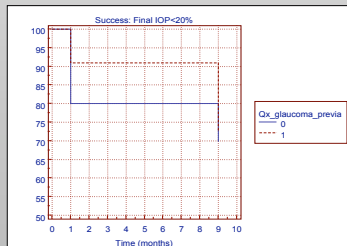
Survival time: 9 months
Endpoint: Success Final IOP < 20%
Sample size: 21
SURVIVAL PROPORTION (SE): **0.714** (0.090)

COX PROPORTIONAL-HAZARDS REGRESSION					
--- Coefficients and Standard Errors ---					
Covariate	b	SE	P	95%CI	Exp(b)
Age	-0.7287	0.5455	0.1816	-1.7925 to 0.3350	0.4825
Iris Color	-1.6880	1.5608	0.2795	-4.7316 to 1.3557	0.1849
Pachym.	0.0123	0.0297	0.6791	-0.0457 to 0.0703	1.0124
Prev. Surg.	-1.1307	1.3742	0.4106	-3.8104 to 1.5490	0.3228
IOP	-0.2645	0.2199	0.2290	-0.6933 to 0.1643	0.7676
1º Week IOP	0.4917	0.2458	0.0454	0.0125 to 0.9710	1.6352

	IOP PreTTº (S.D.):	IOP PosTTº (S.D.):	IOP Red. (%):	Stat. Sig.
CAT. oper. Eyes:	21.3 (2.7)	16.7 (2.6)	4.6 (21.5%)	$P = 0.0037$
TBLT oper. Eyes:	23.6 (4.4)	18 (4.7)	5.6 (23.8%)	$P < 0.0001$

Conclusion

SLT in previously operated eyes is as effective and safe as in non-operated eyes referred in literature and is equally effective and safe in previously cataract operated eyes than in previously trabeculectomy operated eyes.



Survival time : 9 months
Endpoint : success final IOP < 20%
Factor codes : Previous TBLT
-----FACTORS-----
Factor: 0 1
Sample size: 10 11
SURVIVAL -----SURVIVAL PROPORTION (SE)-
TIME
1 0,800(0,113) 0,909(0,083)
9 0,700(0,136) 0,727(0,120)
Comparison of survival curves:
LOGRANK TEST
Chi-square = 0,0427 DF = 1
Significance P = 0,8363

References: 1. Latina M, et al. Q-switched 532 nm Nd:YAG Laser Trabeculoplasty (Selective Laser Trabeculoplasty). A multicenter, pilot, clinical study. Ophthalmology 1998; 105: 2082-2090. 2. Martinez-de-la-Casa J, Garcia-Feijoo J. Selective vs Argon laser trabeculoplasty: hypotensive efficacy, anterior chamber inflammation, and postoperative pain. Eye 2004; 18: 498-502. 3. Johnson PB et al. Selective laser Trabeculoplasty predictive values of early IOP measurements for success at 3 months. Br J Ophthalmol 2006; 90: 741-743.