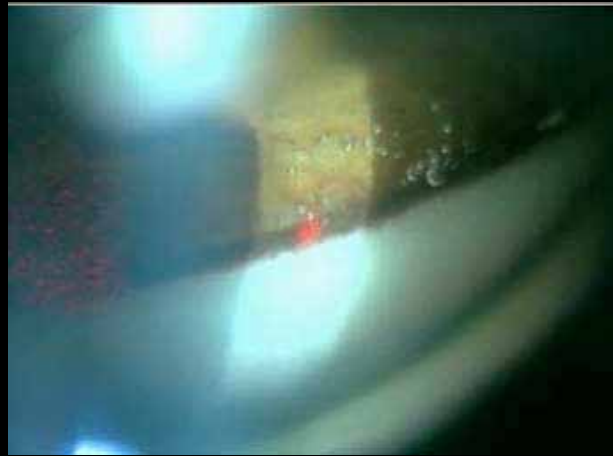


SLT: The Revolution of Pre- and Post-Op Management of POAG



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Consultant, Glaucoma Services

Centre for Sight Group of Hospitals

New Delhi, India

Compliance

- ▣ Between 28% and 58% of glaucoma patients do not use their medications as prescribed
- ▣ Non compliance is probably 30%-40
 - ▣ 40% do not possess medication at the end of 1 year, 10% continuously, 78% have >1 gap
 - ▣ 20 % discontinue

Surv Ophthalmol 2008; 53(6 Suppl):S57-68.

Ophthalmology 2007;114:648-52.

Am J Ophthalmol 2004;137(1 Suppl):S3-12.

Can J Ophthalmol 2008;43:454-61.

Arq Bras Oftalmol. 2008 ;71:207-14.

GAPS

With A little bit of help from my

F R I E N D S

S Bhartiya, T Shaarawy

Glaucoma Sector, Hopitaux Universitaires de Geneve, Switzerland

40% patients needed assistance in putting drops and were unable to do so themselves

ICGS, 2010.

Objective: To evaluate the ease of administration of antiglaucoma medication and correlate it to patient satisfaction.

Methods: 65 patients on anti glaucoma therapy for a mean duration of 185.2±81.2 months (range 3-980; median 120 months) were included in this questionnaire based non interventional study. A 15 point questionnaire with one binary and points was completed by patients and evaluated subsequently. The level of statistical significance was set as p<0.05.

Results: Out of the 65 patients recruited for the study, 28 were using monodose vials, while 36 used the multidose conventional bottles. The mean age of the patients enrolled in this study was 78.7 ± 8.8 years (IQR range 52-95); with 37 males and 28 females.

Parameter	Pearson's Correlation Coefficient	P value
Age	0.24	0.0160
Number of drugs	0.13	0.0005
Gender	0.10	0.12
Type of vial	0.23	0.006
Duration of disease	0.14	0.03

Table 1

Parameter	Pearson's Correlation Coefficient	P value
Age	0.45	0.0000203
Number of drugs	0.43	0.000305
Gender	0.11	0.37
Type of vial	0.16	0.19
Duration of disease	0.13	0.20

Table 2

The age distribution in the monodose and multidose groups were not found to be statistically different, and were 74.6±3.3 years (median 73.3, range 52-93) and 72.5±7.2 years (median 73, range 54-88) respectively (p=0.93).

A significant correlation was noticed between age and difficulty of administration of eye drops as well as need for assistance (Graphs 1,3; Table 1,2).

Number of women needing assistance was found to be 1.9/28 as against 1.5/37 men, but the difference was not found to be statistically significant.

The need for assistance as well as difficulty in administration were found to be significantly dependent on the number of glaucoma medications instituted (Graphs 2,4; Table 1,2).

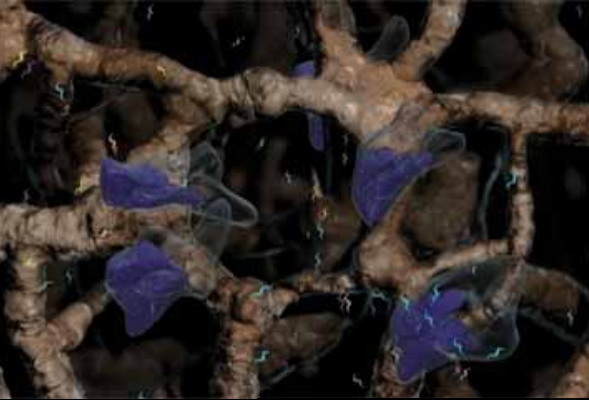
The difficulty in administration, as well as the need for a caregiver for the same were not correlated with gender, duration of disease or the vial used.

26 out of 65 (40%) were unable to put the drops themselves, and required external assistance. No patients below the age of 68 years need assistance for administration of eye drops (Graph 5).

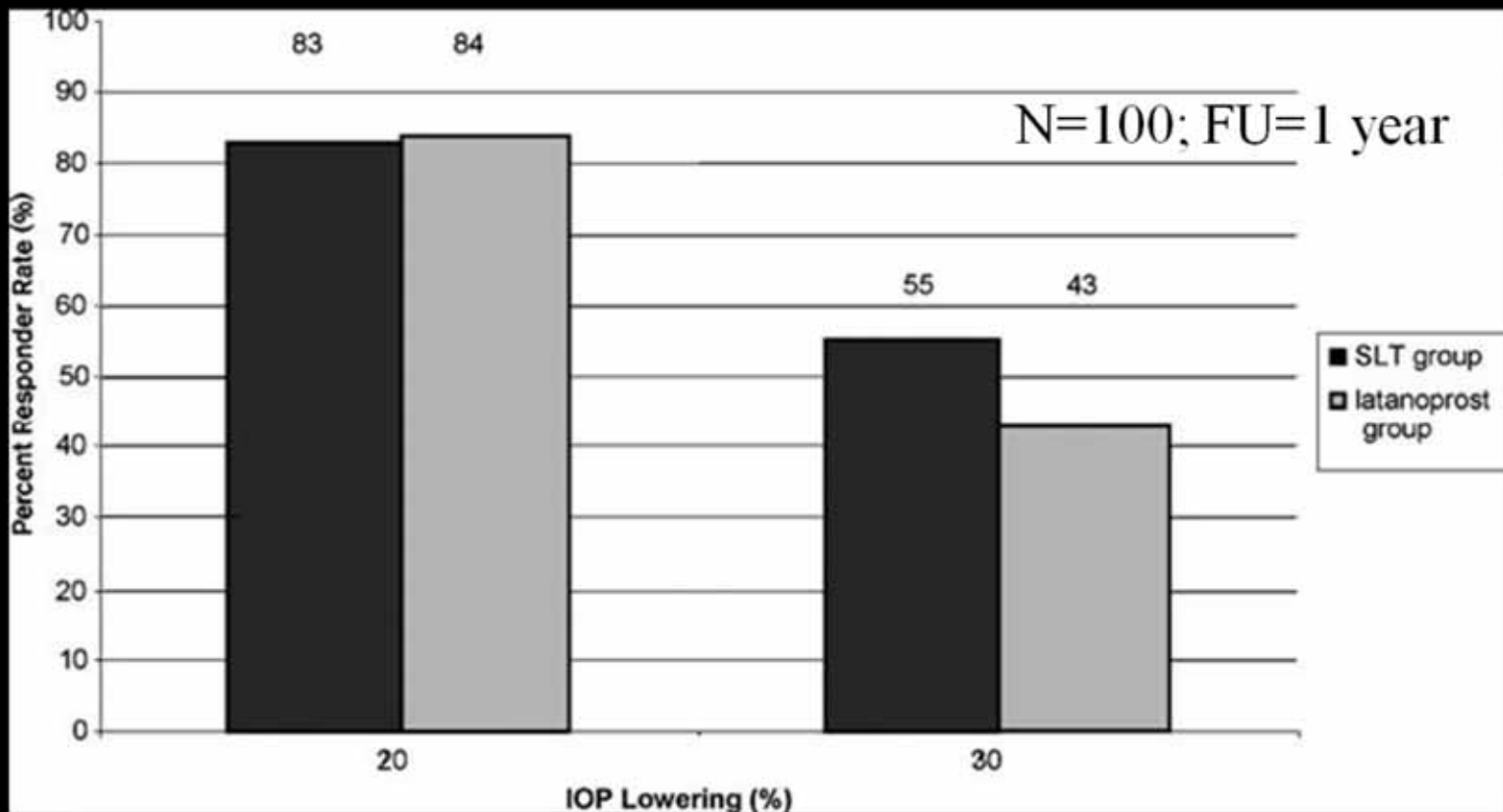
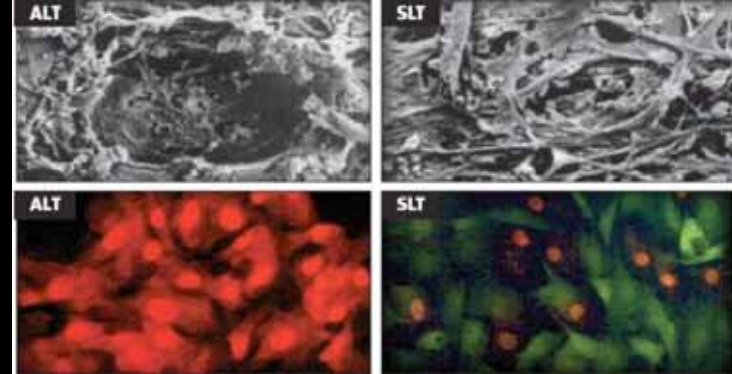
The patients on monodose were not found to be more likely (Mann Whitney Rank Sum Test, p=0.56) to request a change in their medication depending on ease of administration, in comparison to the patients on multidoses. Patient satisfaction with the monodose vial was not found to be more than that with the multidose vial (Mann Whitney Rank Sum Test, p=0.54).

Conclusion: As many as forty percent patients require external assistance in using their antiglaucoma medication, and this can potentially affect compliance. This becomes increasingly relevant in an aging population, as disease severity and the use of multiple medications becomes more frequent. Patients do not report a difference in the ease of administration using monodose or multidose vials.





Efficacy



Fluctuation..

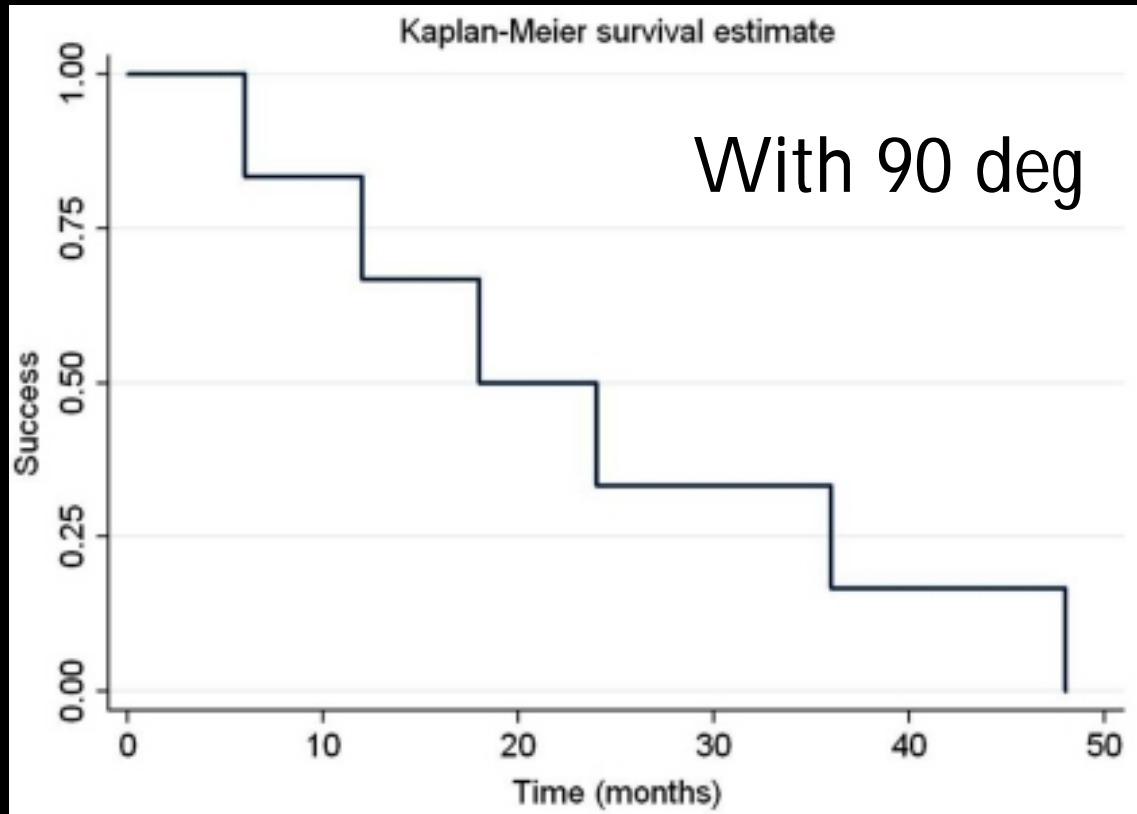
- ▣ Significant decrease was seen in mean IOP at the 6-month visit ($P = .017$) and in IOP fluctuation at 3 and 6 mths.
- ▣ Although no eyes showed mean diurnal IOP reduction of more than 20% there was a significant decrease in the amplitude of diurnal IOP fluctuation.

Ophthal Surg Lasers Imaging, 2010, Kothy et al

Fluctuation..

- ▣ Success in IOP control: 75% with SLT, 73% with latanoprost
- ▣ Absolute reduction 6.2 mm Hg with SLT, 7.8 mm Hg with latanoprost
- ▣ Treatment with SLT successful in lowering IOP fluctuation in 50% of patients, latanoprost in 83%

Duration of Effect



Open J Ophthamol 2011, Ayala et al

I was taught otherwise..



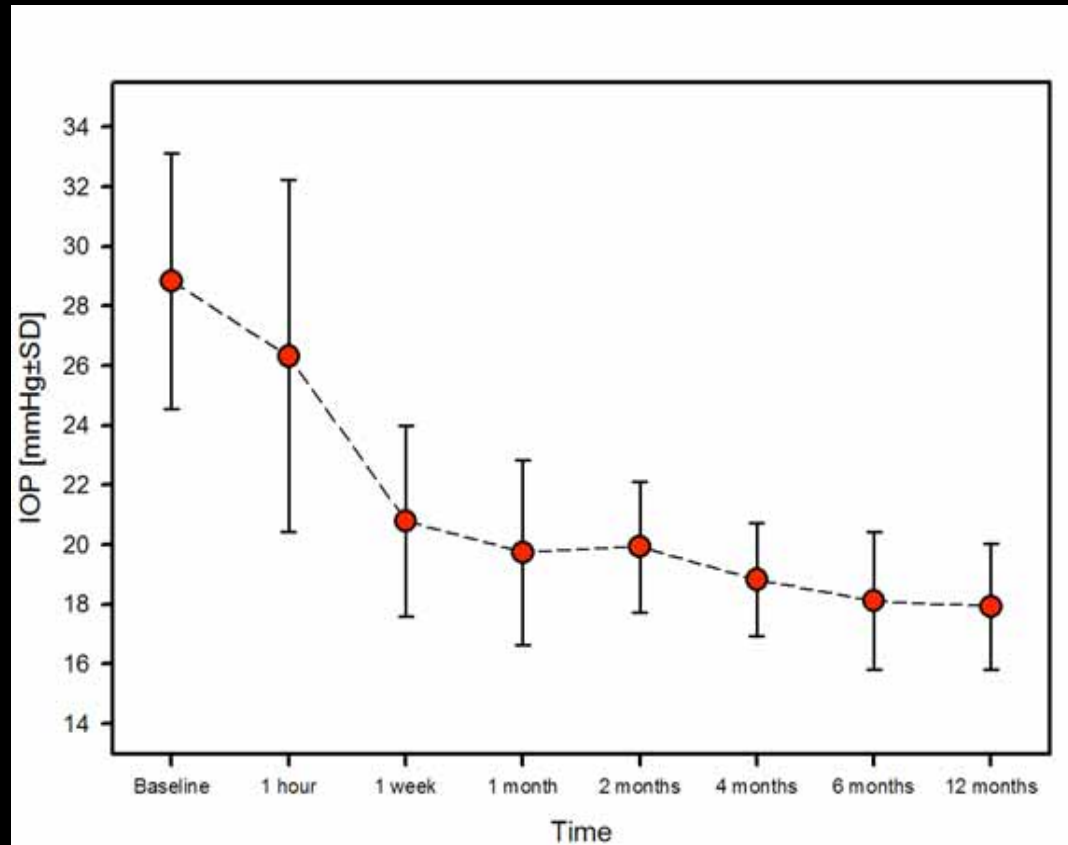
Methods: Patients

- ▣ 17 eyes of 17 newly diagnosed Indian POAG patients
- ▣ No prior treatment
- ▣ 12 females, 7 males
- ▣ Mean Age: 62.3 yrs
- ▣ Baseline IOP: 28.74 ± 4.3 mm Hg

Methods: Intervention

- ▣ SLT treatment to the Inferior 180 degrees of TM
- ▣ Mean power setting : 0.96
- ▣ Pretreatment with brimonidine, 30 mins before SLT

Absolute Success Rate: 69.2% at 12 months



*Bhartiya S, Shaarawy T
ICGS, 2010*

Results

- ▣ Direct savings in 1 year: \$340/per patient
- ▣ All our patients were receptive to idea of SLT as primary therapy



TUNNEL VISION

The Economic Impact of Primary Open Angle Glaucoma -

A Dynamic Economic Model



- ▣ A change to initial laser trabeculoplasty followed by topical medication and then trabulectomy was surprisingly cost-effective and was actually cost saving, returning \$2.50 for every \$1.00 spent.
- ▣ Even if the cost of laser treatment increased 4-fold, it still returned \$1.74 for each \$1.00 spent.

Ophthalmology, 2009. Taylor HR.
Taylor HR, Crowston J, Keeffe J, et al.
www.cera.org.au



Results: The 5-year cumulative costs were approximately \$6571, \$4838 and \$6363 for patients in the medication, laser trabeculoplasty, and filtering surgery arms, respectively. Costs of third-line medication, first-line medication following laser trabeculoplasty, and post-surgery complications had the greatest impact on the model results in the medication, laser trabeculoplasty, and filtering surgery arms, respectively. Probabilistic sensitivity suggested the results were statistically significant ($p < 0.001$), favoring the use of laser trabeculoplasty.

CURRENT MEDICAL RESEARCH AND OPINION®
VOL. 24, NO. 10, 2008, 2905-2918

Skill Transfer

Severe Loss of Central Vision in Patients With Advanced Glaucoma Undergoing Trabeculectomy

Simon K. Law, MD; Anne M. Nguyen, BS; Anne L. Coleman, MD, PhD; Joseph Caprioli, MD

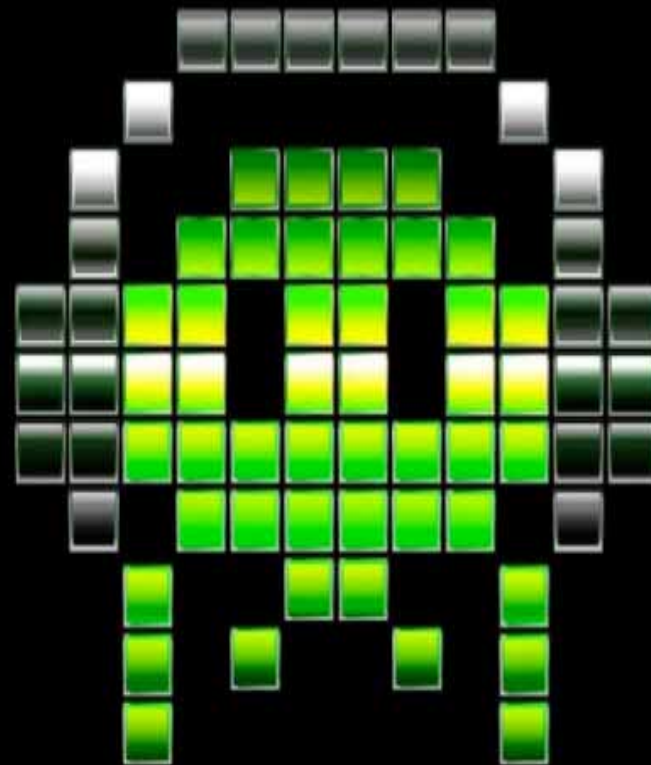
Nonpenetrating Glaucoma Surgery

Efstratios Mendrinos, MD,¹ André Mermoud, MD,² and Tarek Shaarawy, MD¹

Use of Glaucoma Medications: State of the Science and Directions for Observational Research

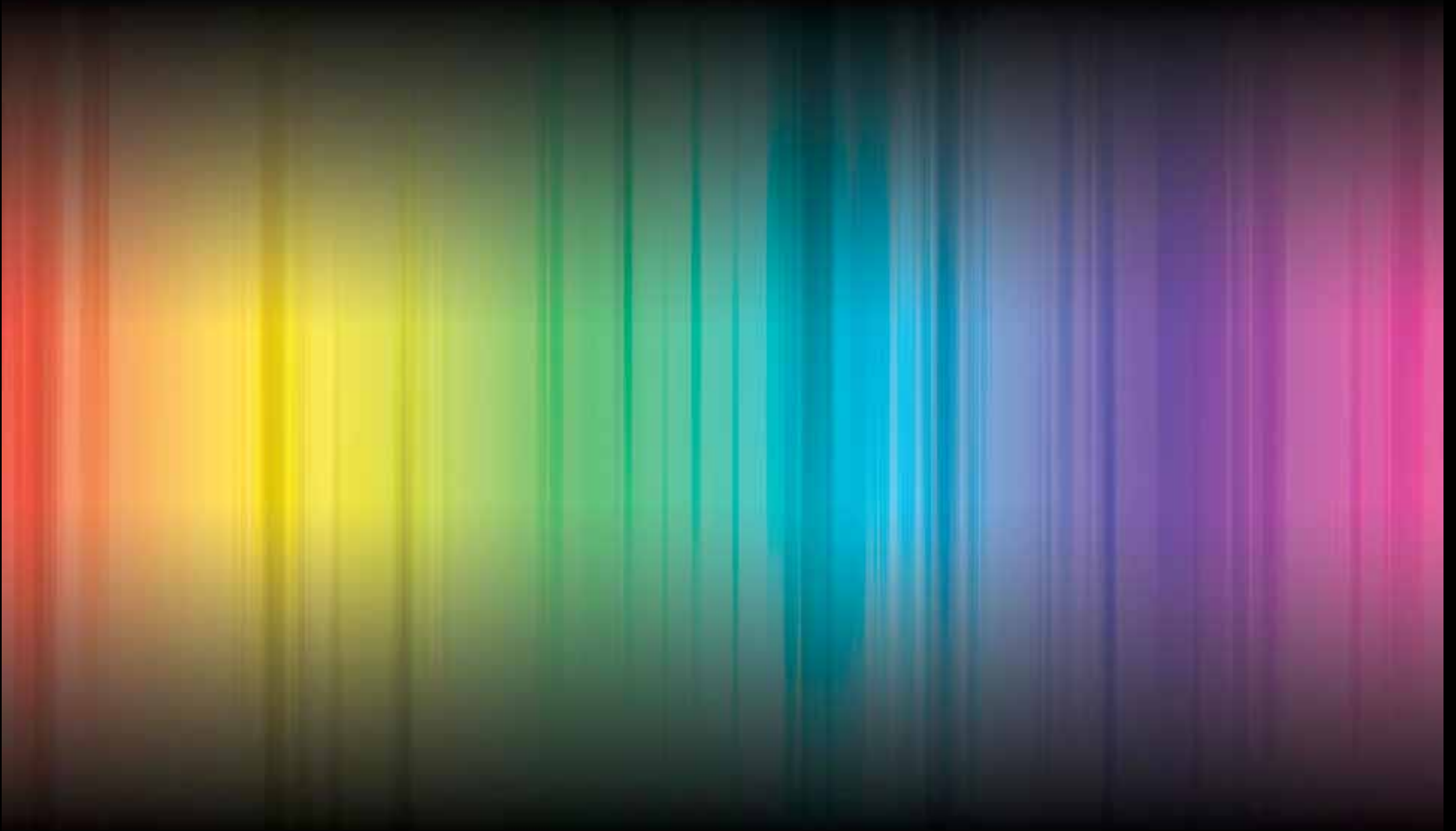
VICKY H. LU, IVAN GOLDBERG, AND CHRISTINE Y. LU

Steep Learning Curve



VIDEO GAMES LIVE™

Patient Profile



Laser Trabeculoplasty Is the Treatment of Choice for Chronic Open-Angle Glaucoma

dromes), laser trabeculoplasty is the initial treatment of choice because of its safety. As an exercise, present the options of laser trabeculoplasty, medication, and surgery to your patients for whom you are going to start treatment. Listen to yourself discuss the risks and benefits of each. You will convince yourself and your patients that “laser first” is the way to go.

*Henry D. Jampel, MD
Baltimore, Md*



The Revolution

- ▣ Supervised, One time
- ▣ Efficacious
- ▣ Safe, minimal QoL impact
- ▣ Easy to administer
- ▣ Cost effective
- ▣ Acceptable
- ▣ Easy skill transfer



“From inability to let well alone; from too much zeal for the new and contempt for what is old; from putting knowledge before wisdom, science before art, and cleverness before common sense; from treating patients as cases, and from making the cure of the disease more grievous than the endurance of the same, Good Lord, deliver us.””

Sir Robert Hutchison
(1871-1960).

