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### Highlights

*“For me, SLT is now number one. If I choose SLT as my first approach, I don't have to worry about compliance – because I am the one in control, and I like that!”*

Madhu Nagar, Clayton Eye Center, Wakefield, UK  
Ellex SLT Symposium during ESCRS 2007

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### SLT. A Primary Therapy Option?

In the last few years, several studies have evaluated the efficacy and safety of SLT as a primary therapy. Today, more and more clinicians routinely offer SLT to their new glaucoma patients. But when it comes to first-line therapy, what is the positioning of SLT in regards to medication? Two eminent SLT specialists, Cindy M.L. Hutnik, MD, PhD, FRCSC (Canada) and Shlomo Melamed, MD (Israel) agreed to be interviewed by Regenerate to present their choices, the reasons behind them, and to explain the way they position SLT as a primary therapy in the glaucoma treatment armamentarium.

#### Question: What can we expect for patients treated by SLT as first-line therapy?

The first expectation, according to Hutnik, is efficacy. The results of Hutnik's study, investigating the efficacy of SLT as both an initial and adjunctive therapy, have shown that the response rate of SLT as primary therapy is identical to that of first line medical therapy (latanoprost) (see Figure 1). “In our study, 80 percent of patients in both groups were able to achieve 20 percent reductions of IOP from baseline at one year post-treatment,” she explained.

Melamed added; “Our team pilot study run on 45 eyes treated by SLT as a first line therapy has shown excellent clinical results, with a mean IOP decrease of  $-7.7 \pm 3.5$  mmHg (30%)” (see Figure 2).

According to both doctors, the second expectation is safety. Melamed emphasized that his goal is to reach the targeted pressure for new glaucoma patients without any risk; “I use SLT specifically as a primary therapy because of the excellent safety profile of SLT, as well as its efficacy,” he said. “The safety profile of SLT is superb, with only 3-11 percent of post-laser IOP spikes (compared to 31 percent in the Glaucoma

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### First Global SLT User Group Meeting Held

The World Glaucoma Congress (WGC) in Singapore provided an excellent opportunity for Ellex to host its first Global SLT User Group meeting. Despite the early-morning start, twelve members from Australia, Israel, the Philippines, Indonesia, Korea, India, Malaysia and the United Kingdom joined other participants and the meeting's Chairman Ivan Goldberg for a lively breakfast discussion.

During the meeting, several emerging trends in treatment protocol were identified and discussed, including:



Attendees at the Global SLT User Group meeting, Singapore, discussing recent developments in SLT.

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Prin RojanaPongpun

Clinical data from SLT studies in Asia is quite scarce. Asian eyes are known to have a relatively small anterior segment, which can be a slight problem when performing SLT. The situation can be more challenging in eyes with chronic angle closure glaucoma (CACG), where only a limited part of the angle can be visualized and treated. We started using SLT in 1997 and would like to share our thoughts and clinical observations in performing SLT in Asian eyes, and in treating CACG.

### Tips for Use of Selective Laser Trabeculoplasty

- **Pre-op medications:** Exposure is everything. Give pilocarpine to patients with convex irises. A drop of brimonidine or apraclonidine an hour before SLT will help blunt post-operative IOP spikes.
- **SLT is considerably easier than ALT.** With limited exposure and visualization of the angle through an open but narrow inlet, focusing a large SLT spot size of 400 microns is considerably easier than the 50 micron spot size of ALT. This is most obvious with our trainees, who are not experienced in gonioscopy.
- **SLT is quick and comfortable.** It normally takes one or two minutes to perform 180° treatment. Based on our study, this is certainly preferable to both physician and patient. The broad beam of SLT can easily cover the target treatment area and shorten the procedure time. We do not leave any free space between spots.
- **High magnification gonio lens help.** Using either Magna View gonio lens (Ocular Instruments) or CGA-1 gonio lens (Contact Glass Anterior, Lasag) provides a superb magnified and panoramic view of the treating angle. Most treatments can be performed with low slit-lamp magnification, which allows a wider view of the angle. As a result, less frequent rotation of the gonio-mirror is required.
- **Look toward the mirror.** Asking the patient to look toward the mirror is extremely helpful, especially when treating an eye with a relatively narrow angle inlet. After each gonio lens rotation, the patient is instructed to change his or her gaze. An extreme gaze is not necessary.
- **Start at a six o'clock position.** Begin treating the inferior angle by viewing it through the superior mirror. In most cases, this is usually the easiest shot, because the angle opening is generally wider when compared to the superior angle. Also, patients tend to get slightly anxious and move their eyes upward, which enhances the visualization of the inferior angle. We usually rotate the gonio lens counter-clockwise to complete the 180-degree nasal half of the angle.
- **Look for small champagne bubbles.** With SLT, we do not see blanching of the pigmented trabecular meshwork. A visible small champagne bubble is a good endpoint. This is usually seen with 0.6-0.8 mJ in most Asian eyes. Once this is evidenced, we rarely need to adjust the power.
- **Do not touch the PAS.** With angle-closure patients, treat only the visible area of the trabecular meshwork. Avoid the area with PAS (peripheral anterior synechiae). Unlike ALT, we usually do not see new PAS formation with SLT.
- **No more post-laser steroids.** Currently, we do not prescribe topical steroid drops after SLT, but a few days of topical NSAID instead. It is hypothesized that topical steroids may compromise the effect of SLT. However, this requires more evidence and study.
- **Continue anti-glaucoma medication.** The maximum effect of SLT might be seen a couple of weeks post-laser, so all pre-laser anti-glaucoma medications should be continued until a certain IOP reduction level is documented. We normally judge our results at the end of six weeks.

## Early Diagnosis to Dramatically Expand Use of SLT

During a recent series of SLT symposia in Iran, Professor Isabelle Riss, University of Bordeaux, France, made a very good case for early diagnosis and early treatment of patients at risk of developing glaucoma. Riss drew a parallel with early diagnosis and early treatment of high blood pressure, and the dramatic effect that this has had on reducing the rate of mortality from heart disease.

With the increase in life expectancy, Riss noted, glaucoma screening becomes more important to avoid development of the disease and the risk of blindness – particularly for younger patients. Newer diagnostic techniques, particularly nerve fiber layer thickness measurement, enable the practitioner to detect retinal damage before the visual field becomes affected.

Riss stressed the importance of screening family members of glaucoma patients in order to detect young patients at risk, and to start controlling their IOP as early as possible. This urgency was echoed in a recent study by the Canadian Glaucoma Society, which showed that for every mmHg of increased IOP, the risk of glaucoma progression increases by 20 percent.

In many cases, medications are effective in controlling pressure for a certain number of years if compliance can be assured, but side effects and the loss of quality of life mean that they cannot be administered for decades. Riss demonstrated that SLT, with its extremely high therapeutic index, is an excellent method for controlling IOP in younger patients before subjecting them to medication, if necessary, later in life.

One of the Iranian symposia provided a unique opportunity for Riss to discuss cases and compare notes with Doctor

Kouchaki, a glaucoma specialist at Teheran's ultra-modern Noor Eye Hospital. After presenting some very interesting case studies, Kouchaki treated a few patients during the symposium and shared his experience using SLT as an adjunctive treatment.

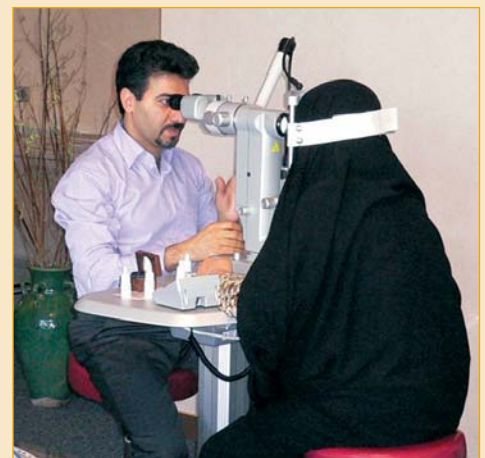
Next, Professor Hosseini Teherani and his colleagues welcomed visitors to Teheran's Razi Eye Clinic, which has only recently acquired an SLT laser. Participants were very interested in learning how SLT will start to benefit their patients in the months to come.

The grand finale was a symposium under the stars in Isfahan, where Professor Ghoreishi, Persian Eye Clinic, Isfahan, hosted the meeting in the garden of the beautiful Persian Eye Clinic. Doctors Rismanchian and Shahshani, also from the Persian Eye Clinic, gave interesting talks on the principle of SLT and its important position in the armamentarium of the glaucoma specialist.

"Due to its very young population (two out of three Iranians are under 30 years of age) and its high standard of medicine, Iran is a country which can really benefit from early diagnosis and early treatment with SLT" said Riss.

"Controlling arterial hypertension has proven beneficial and the number of heart attacks and strokes has

certainly decreased, although the risk of subtle cognitive disorders due to imperfect pressure control is still present. We are lucky, as glaucoma specialists, to be able to customise the IOP decrease, whatever the initial pressure, to avoid loss of nerve fibers. Our goal is to reduce the IOP to a physiological level – and it is possible!"



Doctor Kouchaki treating a patient with the Solo at the Noor Eye Hospital, Teheran.



Professor Riss addresses symposium delegates at the Razi Eye Clinic, Teheran.

## Egyptian Symposium Focuses on Early Glaucoma Treatment with SLT

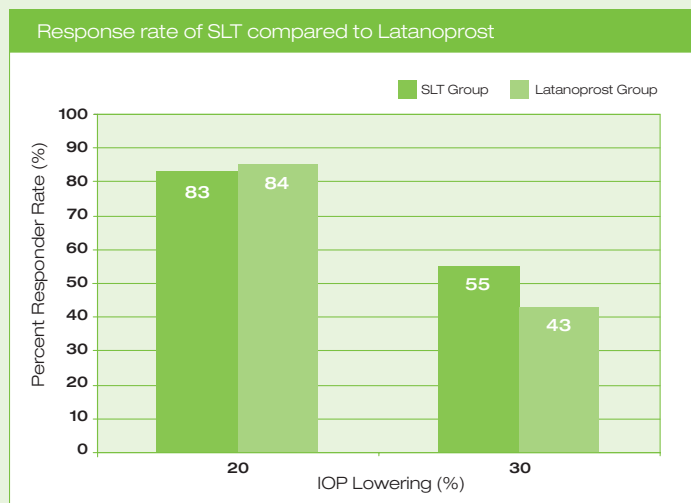
***"I use SLT in the early stages of glaucoma, when treatment is most effective."***

Mr. Ejaz Ansari, Maidstone Hospital, Kent, UK

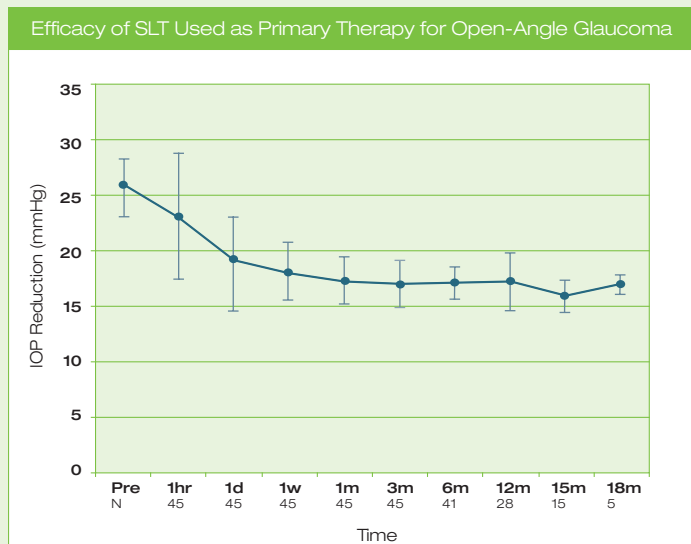
The July 2007 Cairo SLT symposium provided an excellent opportunity for glaucoma experts to share their SLT knowledge and experience. Special guest Ejaz Ansari from the Eye, Ear and Mouth Unit (EEMU) of Maidstone Hospital, Kent, UK was invited to present his long-term experience with SLT. Ansari, who has been performing SLT for five years, emphasized the importance of the Early Manifest Glaucoma Treatment Study (EMGTS), which demonstrated that early glaucoma treatment helps to preserve the vision of patients with glaucoma. "SLT can be applied in the early stages of glaucoma to improve the long-term prognosis of patients," he said. "I use SLT in the early stages of glaucoma, when treatment is most effective."

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Laser Trial study), no peripheral anterior synechiae (PAS), and no necrosis.”



**Figure 1:** No difference exists between the responder rates when comparing SLT to latanoprost a primary therapy. Approximately 80% of patients achieved IOP reductions of at least 20% from baseline, and 50% of patients achieved IOP reduction of at least 30% from baseline in both groups. Source: Cindy M.L. Hutnik.



**Figure 2:** Selective Laser Trabeculoplasty (SLT) as Primary Treatment in Open Angle Glaucoma. Shlomo Melamed, Guy J. Ben Simon & Hana Levkovitch-Verbin. The Sam Rothberg Glaucoma Center, Goldschleger Eye Institute, Israel.

Hutnik noted that she has yet to see one patient who has suffered a complication from SLT. For her, it is a safe procedure that takes about 1-2 minutes per eye, is not painful, and enables patients to go about their usual activities post-treatment. “To date, we have not had a single patient who has suffered an untoward event. There have been no pressure spikes, no inflammation, no peripheral synechiae, no damage of any kind detected in the treated eyes,” she said.

**Question: Do we measure a better pressure decrease when SLT is used as primary therapy?**

According to Melamed, there are no easy answers to this question. “If one looks at the few published papers on primary

treatment, in all the papers the “magic” number of 30 percent reduction of IOP is apparent, while IOP reduction of 17-23 percent has been reported for patients with maximal medical treatment,” he said.

The results of Hutnik’s study show that SLT as a primary therapy is able to achieve lower IOP reductions at all time points tested post-laser therapy (see Table 1).

	Primary Treatment Group (n=74 eyes)	Washout Group (n=87 eyes)	p-value
Average Pre-Tx IOP	26.0	26.1	0.84
1 Month IOP	17.8	19.9	<0.001
3 Month IOP	17.7	19.0	0.04
6 Month IOP	17.0	18.9	<0.001
12 Month IOP	18.5	20.5	<0.001
Average Post-Tx IOP	17.9	19.7	<0.001

**Table 1:** Comparison of pressure reduction between Washout Group and Primary Treatment Group. Source: Cindy M.L. Hutnik.

Hutnik explained that other groups throughout the world have consistently reported this finding, but the phenomenon still remains speculative. “One theory is that any type of anti-glaucoma medication does alter the trabecular meshwork through which the aqueous humor exits from the eye. It is a negative impact that impairs the maximum outflow achievable by other modalities such as SLT. Is it preservative toxicity? Nobody knows,” she said.

Another theory is that certain eye drop classes may compete for the same IOP-lowering pathway as does SLT at a molecular level. “Alvarado in the U.S. has shown that SLT therapy stimulates cytokines and other messengers at a molecular level, and perhaps topical medications compete/interfere with these pathways,” she continued.

**Question: Can we systematically offer SLT as primary therapy to new glaucoma patients, instead of traditional medications?**

According to Melamed, the answer is a definite yes. “Because of the excellent safety profile of SLT, as well as its efficacy, we can offer SLT as primary therapy to all our new glaucoma patients,” he said.

For Hutnik, the answer is yes, but not always. “As I continue to perform SLT, I am learning that some patients do not seem to respond as well as others. We have embarked upon a line of research using something called “Prediction Rule Analysis” to help determine the likelihood that a patient may respond to treatment prior to treatment,” she said. “I am convinced that in some patients, classical medication is optimal – while in others, SLT is the first choice.”

### Question: Can we use SLT earlier as a preventive treatment?

“SLT can be offered earlier in the treatment paradigm than conventional ALT – not because of efficacy, but because of safety,” noted Hutnik. In 2006, she published a study titled, “Projected cost comparison of selective laser trabeculoplasty versus glaucoma medication in the Ontario Health Insurance Plan” that has shown SLT to be cost-effective in comparison to eye drops, especially when two or more agents are required to control IOP. “For this reason, SLT may be considered a safe and effective therapy in OHT patients to prevent progression to glaucoma,” she said.

Melamed agreed, “In my practice, we only treat OHT patients with sufficient risk factors for conversion to glaucoma, and/or glaucoma patients with uncontrolled IOP.”

### Question: How can we introduce SLT to a new glaucoma patient?

Melamed’s method is to discuss treatment with all newly diagnosed patients, addressing the associated risk factors. “I describe the two options: start with medication first, or start with SLT. I provide the pros and cons for each treatment,” he said. “For medications, the issues usually discussed are compliance, need for chronic use, side effects and cost. For SLT, the main topics are the cost, the problem of non-responders, temporary IOP control and need to re-treat.”

Hutnik explained that most of her patients are very knowledgeable and informed due to Internet access. Regardless of Internet knowledge, she gives all of her patients in-depth verbal and take-home information that outlines the SLT procedure from start to finish. “I go over the risks and benefits of both SLT as well as medical therapy, what to expect in terms of treatment success and side effects based upon peer-reviewed literature,” she explained. “I allow the patients to make the choice of their therapy. It does take time to go over options with patients, as opposed to imposing one treatment over the other. However, I find patients like to have options and appreciate my willingness to discuss their management with them.”

### Other Reasons to Use SLT as Primary Therapy

#### It is easy to perform.

The procedure takes approximately 1-2 minutes to perform per eye. There is no pain associated with the laser light because of the short period of laser delivery and low energy used, Hutnik explained. “There is so little inflammation caused by the procedure that virtually no patients have reported discomfort during the days that follow SLT,” she said. Melamed outlined that SLT is easier than ALT, as the spot size is 400 microns, which covers the whole width of the angle; also, that “there is no need to ‘aim’ at the posterior scleral spur trabecular meshwork, as we do with ALT.”

#### It removes the problem of non-compliance.

Hutnik conducted a research study in her practice to explore the rates of non-compliance, as well as some of the causes. “The results revealed a diversity of causes. There is no question that as soon as you add more than one bottle of eye drops and more than once-a-day dosing, compliance falls exponentially,” she said. “In our practice, we use education in several forms to promote compliance. The major problem is that many patients are unintentionally non-compliant, which means that for physical, mental or social reasons, they just do not have the resources to be compliant with medical therapy.”

#### It offers a solution for patients who are intolerant or non-responsive to medications.

As reported in the literature, Hutnik finds intolerance to eye drops varies between 5-30 percent, depending upon the class of medications. She also thinks that preservative toxicity is significant. “We have just completed experiments in my basic science laboratory that show significant toxicity to cultured human corneal epithelial cells with standard concentrations of benzalkonium chloride (preservative) that are commonly used in commercial preparations of eye drops.”

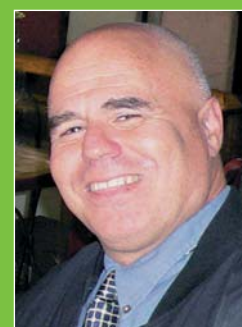
## Meet the SLT Specialists:

Cindy M.L. Hutnik, MD, PhD, FRCSC, is an associate professor in the department of ophthalmology and pathology at the University of Western Ontario who practices at the Ivey Eye Institute in London, Ontario. One of her studies recently published in the Journal of Glaucoma, “Selective Laser Trabeculoplasty as Initial and Adjunctive Treatment for Open-Angle Glaucoma”, compared SLT to Xalatan as first-line therapy.

Shlomo Melamed, MD, professor of ophthalmology at Tel Aviv University Medical School in Israel and director of the Sam Rothberg Glaucoma Center, published one of the first studies addressing SLT as a primary treatment for patients with ocular hypertension or open-angle glaucoma.



Cindy Hutnik



Shlomo Melamed

## Swedish Symposium Spotlights Advances in SLT Therapy

On September 11, 2007, Ellex hosted a symposium as part of the Satellite Education Program at the XXV Congress of the European Society of Cataract and Refractive Surgeons (ESCRS) in Stockholm, Sweden.

During the symposium, British Research Professor of Ophthalmology John Marshall (St. Thomas' Hospital, London) led a panel of international speakers that included Enping Chen (St. Erik's Eye Hospital, Karolinska Institute, Stockholm), Shlomo Melamed (Tel Aviv University Medical School, Tel Aviv) and Madhu Nagar (Clayton Eye Center, Wakefield). Each panelist presented the latest data and information regarding SLT from a variety of clinical studies and clinical experience.

### The Extra Cellular Matrix Modulation and SLT

Marshall began the symposium with an overview of SLT as an advanced laser procedure. He explained that sheets of the trabecular meshwork (TM) are made up of Extra Cellular Matrix (ECM) materials which are lined by TM cells and spaces. "The ECM," Marshall explained, "is modulated to facilitate actions such as remodeling or cell migration by one of the major families of proteinases known as matrix metalloproteinases and their tissue inhibitors, which play a key role in the response of cells to their microenvironment."

He then described how these metalloproteinases (MMPs) and tissue inhibitors (TIMPs) can be manufactured as required by epithelial cells, such as TM cells. An up-regulation of active MMPs and a decrease in TIMPs can degrade or reduce an ECM, while the reverse can increase ECM components. This enables a bi-directional ECM modulation under the control of cells attached to the ECM.

Marshall explained that histologic and morphologic studies have demonstrated an excessive accumulation of ECM in the TM of glaucomatous eyes, which contributes to impeded aqueous outflow and elevated IOP. In order to improve outflow and lower IOP, SLT can be used to manipulate the ECM remodeling process.

According to Marshall, the extremely short bursts of SLT laser pulses (below the relaxation time of melanin) prevent diffusion of energy and collateral damage. He explained that the local SLT activation of pigmented TM cells triggers cell migration and division, as well as the release of ECM-degrading MMPs. Because the ECM and non-pigmented cells' integrity are respected, the treatment can be repeated if necessary. "The cascade of forced cell migration necessitates a cascade release of MMPs, which reduce the excessive ECM and improve outflow and lower IOP," he concluded. "In addition, the newly divided cells will better regulate the MMP/TIMP balance to regulate IOP."



Symposium Speaker Panel (left to right): Shlomo Melamed, Madhu Nagar, John Marshall, Enping Chen.

### Chen Reviews 90° SLT Study

Enping Chen presented a paper that described the results of his study analyzing 78 eyes of 78 patients treated with 90° SLT. The study demonstrated that exfoliation, pigmentation of the TM or previous ALT do not influence the period of IOP control after SLT.

According to Chen, SLT can be used as a primary treatment or as adjunctive treatment when IOP is still high, despite topical therapy, ALT or previous SLT. SLT is also useful for patients who do not tolerate topical treatments due to allergy or side effects, are poorly compliant, have difficulties administering eye drops, would like to improve their quality of life, or are pregnant. "One of our particularly interesting findings was that SLT is more efficient on patients with less than two medications," he said.

### SLT versus ALT

The next presentation was by Shlomo Melamed, who reported that SLT is a safe and effective treatment method as compared to ALT, which many studies have shown to include risks. These include a post-treatment increase in IOP, limited efficacy, coagulative damage and scarring to the TM. In addition, he said, ALT may also limit the efficacy of further non-surgical therapy.

However, ALT has also been shown to induce positive biological effects on the TM, such as increased phagocytic activity, trabeculitis and shift of aqueous flow. "However, you do not need an overkill of ALT to achieve this," noted Melamed. "A more gentle treatment of pigmented cells will do this just as well."

As an alternative to ALT, Melamed pointed out, SLT does not cause structural or coagulative damage to the TM. In various studies, it has been shown that SLT can increase aqueous outflow and cell permeability (Alvarado, 2007), and 90° treatment is just as effective as 180° (Chen et al., 2004). In a five-year follow-up study of Chinese patients, SLT demonstrated equal success to medical treatment (Lai et al., 2004), while another

- Most users are now offering SLT earlier in the treatment paradigm, as they are now reassured about its safety and efficacy.
- 180° treatment in two sessions, or 360° treatment, are generally preferred, except in cases with high pigmentation.
- The energy must be precisely titrated to just produce a few very fine champagne bubbles, either at every shot or every few shots.
- Anti-inflammatory medication is not necessary. An alpha-agonist may help to avoid pressure spikes, and pilocarpine helps to open the angle before treatment.

Other highlights of the meeting included:

- A discussion of the difference between SLT and ALT – particularly for Indian eyes, where ALT does not work and SLT is achieving very positive results.

- A discussion concerning the importance of patient education. Several amusing anecdotes were shared, including one of Goldberg's patients asking if SLT would also cure his myopia.
- Encouragement for future SLT users from two public hospitals in Malaysia, who were happy to hear that their notoriously non-compliant patients would benefit from SLT.
- Extreme interest in learning more about the mechanism of SLT, based on Alvarado's paper from the International Glaucoma Symposium (IGS). Attendees agreed that SLT seems to have a biological rather than a mechanical effect.
- Discussion of Sheng Lim's study showing that SLT affects aqueous outflow through the TM. Attendees concurred that they are looking forward to the next step, which is to understand if SLT also affects the uveo-scleral pathways.

**The global conclusion of the meeting was that SLT has an extremely high therapeutic index – perhaps the highest in ophthalmology – and that it has a significant role to play in the treatment of glaucoma.**

## Swedish Symposium Spotlights Advances in SLT Therapy, continued

study revealed that SLT is as effective as ALT, but causes less inflammation and is better tolerated by patients (Martinez de la Casa et al., 2004). It has also been shown that SLT can be used more than twice (Nagar et al., 2007).

In a recent study evaluating the use of SLT as a primary treatment for POAG, Melamed found a 30 percent IOP reduction in a two-year follow-up. "Interestingly, we also found an IOP reduction of over 5 mmHg within one hour in 33 percent of the eyes tested," he added.

"As a result of these studies, we believe that SLT is an effective and very safe treatment method for glaucoma," he concluded. "SLT should be offered as an initial treatment choice in certain POAG, OHT and pseudoexfoliative glaucoma patients."

### Long-Term Prospects for SLT and Other Studies

Closing out the symposium, Madhu Nagar presented results from a case study analysis of SLT procedures carried out between January 2000 and December 2005. In the analysis, 505 eyes were analyzed in patients with POAG and OHT. Out of these, 54 percent received SLT as primary treatment, while the remaining 46 percent received it as an adjunctive or replacement therapy.

In the primary group, IOP fell from 27.8 mmHg to 19 mmHg after a follow-up period of 45 months. In the secondary group, a 33 percent reduction in IOP was recorded after 51 months. Nagar's conclusion from these results was that SLT has positive long-term prospects. Nagar also found that SLT is a repeatable procedure. Out of 110 eyes, 56 were treated

with SLT as an enhancement therapy (receiving 180° treatment) and the remaining 54 received SLT as re-treatment (following previous treatment at 280° or 360°). In the enhancement group, there was an IOP reduction of 23 percent after 24 months. At the start of treatment, there were 10 non-responders. Out of these, 40 percent were non-responders after 24 months. In the re-treatment group, IOP fell from 27.5 mmHg to 18.6 mmHg. Nineteen eyes did not respond to the initial treatment, and 26 percent of these failed at six months.

In another randomized controlled trial, Nagar evaluated the effect of SLT in daytime tension curve in 40 patients, and compared the results with latanoprost (Xalatan, Pfizer). IOP recordings were taken at 8:00, 11:00, 14:00 and 18:00 prior to SLT treatment. After four months, IOP fluctuation fell from 6.4 mmHg to 3.2 mmHg with SLT, and 2.1 mmHg with Xalatan. As a result, SLT is comparable to Xalatan at 360° treatment, and both lead to a flattening of daytime tension curve. "However," she cautioned, "much larger studies of 24-hour analysis need to be carried out to determine this."

"No treatment of glaucoma is 100 percent, not even SLT," Nagar noted in closing. However, she believes that laser trabeculoplasty has a better risk-benefit ratio than any other method. For OHT patients in particular, it has been shown that SLT is the most effective treatment. ***"For me, SLT is now number one," she concluded. "If I choose SLT as my first approach, I don't have to worry about compliance – because I am the one in control, and I like that!"***

## Events

### Symposia

**Austrian SLT Symposium**  
Salzburg, Austria, October 12

**Malaysian SLT Symposium**  
Kuala Lumpur, Malaysia, November 24

**AOGS SLT Symposium**  
Bangkok, Thailand, December 3

### Congresses

**American Academy of Ophthalmology (AAO)**  
New Orleans, USA, November 10 - 13

**Royal Australian and New Zealand College of Ophthalmology (RANZCO)**  
Perth, Australia, November 25 - 28

## Egyptian Symposium Focuses on Early Glaucoma Treatment with SLT, continued



Ejaz Ansari

“For my patients already on topical treatment, I use SLT to reduce drug prescription and to improve pressure control,” Ansari explained. “For my new glaucoma

patients, I use SLT to delay the need for a prescription. For me, SLT is a safe, effective and versatile treatment.”

After a practical and precise description of treatment modalities, Ansari explained the importance of communication with patients. “I systematically present the different options to my new glaucoma patients – SLT and medication. I explain the advantages and disadvantages of both alternatives; then, I give them time to make their own decision.”

After Ansari’s presentation, glaucoma specialist Ahmed Mostafa Abdel-Rahman,

MD, FRCSEd, assistant professor at Cairo University, provided attendees with an overview of papers from the World Glaucoma Congress. He also shared his own recent experience with SLT.

“I use SLT to stop or to avoid anti-glaucoma drugs, to reduce the number of anti-glaucoma drugs or to avoid surgery,” he said. “The preliminary results encourage me to propose SLT to the majority of my glaucoma patients. I have treated 22 eyes of 14 patients, (11 females, 3 males, mean age 46.5 years) with a mean preoperative IOP at 22 mmHg and mean preoperative medications of 1.09. One month after treatment, the mean IOP is 17.1 mmHg (22.2 percent IOP reduction) and the number of medications has reduced to 0.5.”

To conclude, Abdel-Rahman outlined the results of the EMGTS study, which showed that the risk of glaucoma progression decreases by 50 percent with every 3 mmHg of pressure reduction.

## Do You Remember Brian?

**Recap:** In volume two of *Regenerate*, we published an interview entitled, “Why Did We Choose SLT?” that described how Ejaz Ansari from Maidstone Hospital, Kent, UK performed SLT treatment on Brian G. Bussey. Ten months after the treatment, Mr. Ansari and Mr. Bussey agreed to describe follow-up.

Two days after Mr. Bussey’s initial visit, Mr. Ansari performed the SLT procedure, treating both eyes with 120 spots in each eye, for

360-degree coverage. Follow-up visits to check IOP were arranged at four weeks, and at three and six months. Mr. Ansari commented that IOP reduction following SLT is typically observed one day after treatment, but about 10 percent of patients are “late responders,” where the effect on pressure can be seen after three or four months.

At four weeks, Mr. Bussey’s IOP was controlled and identical to the baseline pressure, as is sometimes the case for long-term responders. At the three-month follow-up, pressure reduction was minimal, with a drop of 3 mmHg in both eyes (from 19 mmHg to 16 mmHg). At six months, the pressure drop was significant, with Goldman Tonometry from 16 mmHg to 11 mmHg in the right eye, and 16 to 12 mmHg in the left one. Ultimately, the target pressure was reached in both eyes and maintained without medication, with a total pressure reduction of 42 percent for the right eye, and 36 percent for the left. “Brian is a typical long-term responder,” explained Mr. Ansari. “From here, every six months I will examine his pressure, and every year I will perform an HRT and visual field analysis.”



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