Selective Laser Trabeculoplasty (SLT)

This information leaflet is for patients with glaucoma and aims to provide information about selective laser trabeculoplasty.

What is Glaucoma?

Glaucoma is a disease of the eye which causes damage to the optic nerve. Usually the pressure within the eye (intra-ocular pressure or IOP) is raised. Vision loss from glaucoma is permanent but can usually be prevented with early detection and treatment. Glaucoma management is usually a lifelong process that requires frequent monitoring and constant treatment.

Reducing pressure within the eye is the only proven way of controlling glaucoma. The treatment of glaucoma involves the use of different eye drops, laser and surgery. Each form of treatment has advantages and disadvantages.

The Laser Treatment

Selective Laser Trabeculoplasty or SLT is a safe and simple outpatient procedure that effectively reduces eye pressure in most patients with glaucoma. This treatment is usually required when eye drops are not enough in controlling the glaucoma, or the use of drops is not possible. SLT is also sometimes used as a first line treatment for glaucoma.

In SLT multiple laser applications are applied to the drainage part of the eye (anterior chamber angle) with the help of a contact lens. The procedure is quick, and takes only a few minutes to treat either one or both eyes. Depending upon the clinical requirements it is performed either in a single or two separate appointments.

Before the treatment a few eye drops (topical anaesthetic drops, drops to constrict the pupil and pressure lowering drops) will be put in your eyes before the procedure. After the laser treatment you will be asked to wait for about one or two hours to check the pressure in your eyes before you leave.
How does it work?

The laser spots helps drainage channels to work better and helps in controlling glaucoma by lowering the intra-ocular pressure. It works in about 80% of cases to help lower the eye pressure.

What happens after the treatment?

If you are already on eye drops for glaucoma, you are normally advised to continue taking their eye drops after the laser treatment. It takes from a few weeks to a few months to get a response from the treatment. A follow up appointment will be arranged at around six to eight weeks. The effect usually lasts for a few years and the SLT can be repeated, if necessary.

What are the side effects?

The procedure is usually painless and most people feel their eyes have recovered by the following day. You must not drive immediately following the laser but may be able to return to work and driving the next day. The laser treatment works by producing some low grade inflammation in the eyes and this may result in the eyes being a little light sensitive for a week or two afterwards. In some cases this may be severe enough to warrant treatment with some anti-inflammatory drops. In around three to four persons in a hundred the eye pressure will rise significantly immediately following laser. This may require additional treatment for a few days afterwards but in almost all cases will settle. Some people are at higher risk of this than others and if this applies to you the ophthalmologist will explain this to you prior to the laser treatment. Studies suggest around one in a thousand people get a significant increase in their eye pressure which is permanent and would require additional eye drops or surgery to deal with this.

Consent

We must by law obtain your written consent to this procedure beforehand. Staff will explain all the risks, benefits and alternatives before asking you to sign a consent form. If you are unsure about any aspect of the treatment proposed, please do not hesitate to speak with a senior member of staff.

Further Information

For further advice and information please telephone the REI Department on 01305 255192.