



Selective Laser Trabeculoplasty

What is Selective Laser Trabeculoplasty (SLT)?

Selective laser trabeculoplasty is a type of laser treatment used for the treatment of glaucoma or raised intraocular pressure.

How does intraocular pressure become elevated?

A clear fluid (aqueous humour) is produced by the cells at the back of the iris (the ciliary body). The fluid drains out of the eye at a constant rate from an area of filter-like tissue (the trabecular meshwork) which is situated at the front of the eye – where the clear part of the eye (cornea) joins with the white part of the eye (sclera). Normal eye pressure is maintained by a balance between the amount formed and the amount drained out. The eye pressure becomes elevated when there is an imbalance between the amount of fluid formed and the amount that drains out of the eye; in other words, fluid is formed at a constant rate but its drainage is compromised at the trabecular meshwork.

Why does high intraocular pressure need treatment?

High intraocular pressure can cause permanent loss of vision. Lowering of pressure can protect vision.

How is raised intraocular pressure treated?

Raised intraocular pressure can be treated with drops, laser treatment (SLT) or surgery. SLT laser can be used either as primary treatment or as an adjunct to medical or drop treatment. The choice of approach will depend on the level of your intraocular pressure and what previous treatment you have received.

How does SLT work?

SLT works by using a microsecond, pulsed laser to treat cells in the trabecular meshwork which contain the pigment melanin. This ensures that there is no collateral damage to non pigmented trabecular meshwork cells unlike older forms of laser treatment to the trabecular meshwork (Argon laser trabeculoplasty). The treatment is thought to improve or enhance the outflow of aqueous from the eye, thereby lowering intraocular pressure.

What happens during the procedure?

SLT is an outpatient procedure under local anaesthetic. There is no preparation required and you may eat and drink as normal before your procedure.

The laser treatment is applied whilst you sit at a modified slit lamp or the examination microscope similar to the one used to examine your eyes by the ophthalmologist. Local anaesthetic and pressure lowering drops are instilled into the eye being treated. A contact lens is then placed on the eye and laser applied. You will see a bright light but the treatment is not painful.

The treatment takes approximately 15 minutes for each eye. You will have a pressure lowering drop immediately following the treatment. **You may need to have your eye pressure checked 30 minutes following treatment; please be prepared to wait.**

Your vision may be blurred for the rest of the day following laser treatment; please bring a driver to take to back home. You may be prescribed anti inflammatory drops to use following treatment.

The treatment does not make your eye painful afterwards but you may take some Paracetamol if your eye is sore.

Are there any potential problems?

SLT laser treatment is safe in the vast majority of patients. Some patients can have the following problems:

- Inflammation(usually transient)
- Raised intraocular pressure (usually transient)

Can SLT fail?

The treatment is more effective in certain types of glaucoma than others. The treatment can also be repeated.

Questions or concerns

If you have any further questions or concerns please contact Mr Ratnarajan on:

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