Selective laser trabeculoplasty versus drops for newly diagnosed ocular hypertension and glaucoma: the LiGHT RCT

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Plain English summary

The LiGHT RCT

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Plain English summary

Glaucoma is an eye condition in which the optic nerve becomes damaged and, if left untreated, will lead to loss of vision. Ocular hypertension (OHT) is the medical name for high pressure in the eye that increases the risk of getting glaucoma. Lowering the eye pressure is the only known way to prevent glaucoma from getting worse. Before this trial, the standard initial treatment of these conditions was the prescription of eyedrops to lower the pressure in the eye. An alternative is a laser therapy that is known to reduce the eye pressure. This study investigated if starting treatment of glaucoma or OHT with laser therapy (using eyedrops later, if needed) affected the patients' quality of life (QoL) more or less than starting treatment with eyedrops alone. The study also investigated if initial treatment with laser and initial treatment with eyedrops are equally good at controlling eye pressure and are equally safe and how much they cost the NHS. Patients were randomly assigned to starting treatment with either laser or eyedrops and the two groups were then compared.

The study found that for the first 3 years QoL was similar regardless of treatment. However, three-quarters of patients initially treated with laser did not need any eyedrops to control their eye pressure for 3 years. Patients initially treated with laser were less likely to require cataract surgery, and none needed any glaucoma surgery in the first 3 years. In contrast, among those patients treated with eyedrops, glaucoma surgery was required in 11 eyes (out of 622 eyes). Initial treatment with laser was cheaper than initial treatment with eyedrops.

The results of this study suggest that laser is an efficient, safe and cheaper alternative to eyedrops, and that three-quarters of the patients initially treated with laser do not need any eyedrops for the first 3 years of treatment.

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