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Research Article

The Results of Continuous Audit of Selective Laser Trabeculoplasty Performed by a Single Surgeon at One Centre

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Abstract

The results of the continuous audit of outcomes of Selective Laser Trabeculoplasty performed by one surgeon in one hospital setting since starting to perform the procedure in 2019.

Keywords: Selective Laser Trabeculoplasty; Glaucoma; Intra-ocular Pressure; Ocular Hypertension

Abbreviations

SLT: Selective Laser Trabeculoplasty; GMC: General Medical Council

Introduction

Continuous audit of outcomes is mentioned as one of the key points of "Good Medical Practice Guidelines" set out by the GMC [1]. SLT has been proven to be effective in lowering intra-ocular pressure [2-5]. It has even been suggested as the first line of treatment for ocular hypertension or glaucoma [6,7]. Since starting to perform SLT for lowering of intra-ocular pressures, a continuous audit of outcomes was kept. This paper examines these outcomes.

Materials and Methods

The SLT laser used was supplied by Litechnica. It was performed in the laser room of the Spire Thames Valley Hospital. Vision and intra-ocular pressures were checked and noted immediately prior to the treatment. The special SLT gonio contact lens by Volk was used for the procedure. This was applied to patient's eye after instillation of proxymethacaine topical anaesthetic. Laser power was increased from a minimum to a level that just gave some bubble formation on application of the laser.

Results and Discussion

25 eyes of 18 patients underwent selective laser trabeculoplasty by one surgeon whose sub-specialist area was vitreo-retinal surgery. The analysis was of 23 eyes as two eyes did not have enough data to be included in the study as yet, because their procedure was very recent.

10 patients were male and 8 females. There were 9 right eyes and 14 left eyes which had SLT. 100% of eyes responded to treatment by dropping intra-ocular pressure. The average drop in intra-ocular pressure was 4mmHg. The range of drop in intra-ocular pressure was 1-12 mmHg. The median drop in intra-ocular pressure was 4mmHg and the mode of drop in intra-ocular pressure was 3mmHg. The length of time for peak drop in intra-ocular pressure was between 2-9 months.

Side effects of the treatment was limited to post-operative pain lasting 1-5 days after the procedure in 100% of patients with most patient's pain or discomfort lasting only 48 hours. Most patients did not have to resort to analgesia for this pain. Those who did used paracetamol or co-codamol.

Figure 1

Conclusion

In conclusion, SLT seems to be effective in lowering intra-ocular pressure in patients who have the procedure. The procedure is relatively safe and easy to perform and frees patients from having to use drops every day to reduce the intra-ocular pressure to the levels required. SLT can be used either as first line treatment or as adjunct treatment to drops in effectively lowering intra-ocular pressures.

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Conflict of Interest

There was no financial interest in SLT and no conflict of interest exists.

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