



Service Priorities and Programmes Electronic Presentations

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Primary Laser Trabeculoplasty in the treatment of newly diagnosed open-angle glaucoma

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Introduction

Open-angle glaucoma is one of the leading causes of irreversible vision loss in our population. Randomized clinical trials have demonstrated that decreasing the intraocular pressure (IOP) can reduce the risk of disease progression. Effective interventions for reducing IOP include the use of topical glaucoma medications, laser trabeculoplasty, and incisional glaucoma surgery. Medications have multiple side effects including eye irritations and poor compliance. Surgery complications include bleeding, infection and even blindness. Laser trabeculoplasty offers a comparable efficacy while avoiding some of the complications from topical medications and surgery. It is an out-patient procedure and repeatable. Kowloon West Cluster Ophthalmology Centre introduced the use of primary laser trabeculoplasty for newly diagnosed open-angle glaucoma.

Objectives

(1) To improve the quality of care by preventing glaucoma progression through effective IOP control with the use of selective laser trabeculoplasty (SLT) or micropulse laser trabeculoplasty (MLT) laser therapy

(2) To achieve reduction in number of glaucoma topical medications used, thereby reducing the overall budget spend on medications and total number of out-patient follow up in long term

Methodology

Glaucoma patients from KWC Ophthalmology Center who had newly diagnosed open angle glaucoma were offered primary laser trabeculoplasty (SLT or MLT) for IOP lowering. Outcome measures included need for further topical glaucomatous medications as well as the safety profile including any complications.

Result

24 eyes of 14 patients with newly diagnosed open-angle glaucoma were offered laser trabeculoplasty as primary treatment. The mean age was 68.9 ± 14.2 years with the cup to disc ratio 0.7 ± 0.1 in average. The mean retinal nerve fiber layer thickness was $68.9 \pm 14.2 \mu\text{m}$. There were no complications during the laser procedure. 91.7% do not require any topical anti-glaucomatous medications at 3 months after the laser trabeculoplasty. 2 eyes require topical medications at 3 month after the laser procedure.

Conclusion:

KWC Ophthalmology Centre firstly introduced the use of primary laser trabeculoplasty, which effectively reduced IOP while maintaining a high safety profile to prevent glaucoma progression. A reduction in the number of glaucoma topical medications used was achieved. Thereby reducing the overall budgets spend on topical medications and the total numbers of out-patient clinic follow up is reduced in the long term.