

Abstracts of Asian research published in the international literature

Cost-effectiveness Analysis for Cataract Surgery

This study was performed to estimate the population health effects, costs, and cost-effectiveness of selected cataract surgery interventions. Effectiveness estimates were based on a review of the literature and considered operative failure, complications, and non-compliance. A population model was used to follow the lifelong impact on individuals undergoing cataract surgery. Cost estimates were based on data collected in 14 epidemiological subregions and literature review.

Intra- and extracapsular cataract surgeries are cost-effective ways to reduce the impact of cataract-blindness, with extracapsular cataract surgery being more cost-effective than intracapsular cataract surgery in all regions. Providing extracapsular cataract surgery to 95% of those who need it would avert more than 3.5 million disability-adjusted life-years per year globally.

Extracapsular cataract surgery at a high level of coverage is the most cost-effective way of restoring sight. Analysts from countries within each region are encouraged to further contextualise the results based on their own country's specific parameters.

Baltussen R, Sylla M, Mariotti SP. Cost-effectiveness analysis of cataract surgery: a global and regional analysis. Bull World Health Organ 2004;82:338-345.

Selective Laser Trabeculoplasty in Chinese Eyes

This prospective randomised controlled clinical study was performed to ascertain the effectiveness and safety of selective

laser trabeculoplasty (SLT) for Chinese patients with primary open angle glaucoma (POAG) and ocular hypertension. One eye of 29 patients was randomised to receive SLT (group 1) and the fellow eyes received medical treatment (group 2). After SLT, patients were evaluated after 2 hours, 1 day, 1 and 2 weeks, 1, 3, and 6 months, and yearly.

The mean baseline intraocular pressure (IOP) was 26.8 ± 5.6 mm Hg in group 1 and 26.2 ± 4.2 mm Hg in group 2. The failure rate (IOP >21 mm Hg with maximal medications) was 17.2% in group 1 and 27.6% in group 2 after 5 years. Eight eyes (27.6%) in group 1 required medications to control the IOP <21 mm Hg. There was no statistically significant difference in the IOP reductions between the 2 groups at all the time intervals. The mean number of antiglaucoma medications was significantly lower for group 1 than for group 2 (p < 0.001).

These authors concluded that SLT results in a similar IOP reduction to medical therapy alone in Chinese patients with POAG or ocular hypertension. Patients receiving SLT require fewer antiglaucoma medications.

Lai JS, Chua JK, Tham CC, Lam DS. Five-year follow up of selective laser trabeculoplasty in Chinese eyes. Clin Experiment Ophthalmol 2004;32:368-372.

Long-term Outcomes after Acute Primary Angle Closure

A cross-sectional observational case series was performed to determine the long-term outcomes for 90 Asian eyes following an acute attack of primary angle closure (APAC) and to identify risk factors associated with the development of glaucomatous optic nerve damage. All patients underwent a complete eye examination. The optic discs were examined for glaucomatous optic neuropathy, and visual fields were assessed for corresponding visual field loss.

The patients were predominantly Chinese (78 patients; 86.7%). There was a mean duration of 6.3 ± 1.5 years from the time of the APAC attack to examination in the study. Table 1 shows the outcomes for the attack eyes. There were no identifiable risk factors related to the episode of APAC that were significantly associated with the presence of glaucomatous optic neuropathy.

Several years after being treated for APAC, 17.8% of patients were blind in the attack eye, and almost half had glaucomatous optic neuropathy. Many patients had reduced vision, mainly due to unoperated cataract. Patients with a history of APAC would benefit from regular follow-up to monitor for visual field decline and development of glaucoma.

Aung T, Friedman DS, Chew PT, et al. Long-term outcomes in Asians after acute primary angle closure. Ophthalmology 2004;111:1464-1469.

Table 1. Visual outcomes in patients with a history of acute attack of primary angle closure.

| Outcome | Number of patients (%) (n = 90) |
|---|------------------------------------|
| Blind in the attack eye | 16 (17.8) |
| Blind in the attack eye due to glaucoma | 8 (8.9) |
| Glaucomatous optic neuropathy | 43 (47.8) |
| Markedly cupped optic discs (cup-disc ratio >0.9) | 13 (15.5) |
| Best-corrected visual acuity worse than 6/9* | 38 (58.0) |

* Cataract was the cause in nearly half of the eyes with poor vision.