

Abstracts of Asian research published in the international literature

Anterior Chamber Depth Measurement as a Screening Tool for PACG

A 2-phase, cross-sectional, community-based study was performed in Hovsgol and Omnogobi provinces, Mongolia, to evaluate anterior chamber depth measurement as a method of screening for primary angle-closure glaucoma (PACG) in an East Asian population. 942 individuals in Hovsgol and 775 individuals in Omnogobi aged 40 years or older were examined. Optical pachymetry outperformed the slit-lamp-mounted ultrasound method of anterior chamber depth measurement (area under the curve, 0.93 and 0.90, respectively; $p = 0.001$). Handheld ultrasound (area under the curve, 0.86) was inferior to optical measurement ($p = 0.001$) but did not differ significantly from slit-lamp ultrasound ($p = 0.06$). The optical method gave a sensitivity of 85% and a specificity of 84% at a screening cut-off of less than 2.22 mm for detecting occludable angles.

Measurement of the axial anterior chamber depth can detect occludable angles in this Asian population and therefore may have a role in population screening for PACG.

Devereux JG, Foster PJ, Baasanhu J, *et al.* Anterior chamber depth measurement as a screening tool for primary angle-closure glaucoma in an East Asian population. *Arch Ophthalmol* 2000;118:257-263.

Detection of Gonioscopically Occludable Angles and PACG by Limbal Chamber Depth

A 2-phase, cross sectional, community based study was conducted in Hovsgol and Omnogobi provinces, Mongolia, to evaluate

the performance of limbal chamber depth estimation as a means of detecting occludable drainage angles and primary angle closure (PAC), with or without glaucoma, in an East Asian population, and to determine whether an augmented grading scheme would enhance test performance.

1717 subjects aged 40 to 93 years were examined. Depth of the anterior chamber at the temporal limbus was graded as a percentage fraction of peripheral corneal thickness. An 'occludable' angle was one in which the trabecular meshwork was seen in less than 90° of the angle circumference by gonioscopy. PAC was diagnosed in individuals with an occludable angle and either raised pressure or peripheral anterior synchiae. PAC with glaucoma (PACG) was diagnosed in individuals with an occludable angle combined with glaucomatous optic neuropathy and consistent visual morbidity.

Occludable angles were identified in 140 subjects, 28 of whom had PACG. The 15% grade (traditional 'grade 1') yielded sensitivity and specificity of 84% and 86%, respectively, for the detection of occludable angles. The 5% grade gave sensitivity of 91% and specificity of 93% for the detection of PACG. The interobserver agreement for this augmented grading scheme was good (weighted kappa 0.76).

The traditional limbal chamber depth grading scheme offers good performance for detecting occludable drainage angles in this population. The augmented scheme gives enhanced performance in detection of established PACG and has potential for good interobserver agreement.

Foster PJ, Devereux JG, Alsbirk PH, *et al.* Detection of gonioscopically occludable angles and primary angle closure glaucoma by estimation of limbal chamber depth in Asians: modified grading scheme. *Br J Ophthalmol* 2000;84:186-192.

Cost-effectiveness of Cataract Surgery in India

3.8 million people become blind due to cataracts every year in India. The cost-effectiveness of public-funded options for delivering cataract surgery in Mysore, India, was assessed by studying 3 types of delivery of cataract surgery:

- mobile government camps
- walk-in services at a state medical college hospital
- patients transported from satellite clinics to a non-governmental hospital.

Almost half the patients operated on in government camps were dissatisfied with the outcome (table 1). User satisfaction was higher with other providers and fewer patients remained blind.

Table 1. User satisfaction for 3 types of delivery of cataract surgery in India

Delivery method	% Satisfied	95% CI
Government camp*	51	36-61
Medical college hospital	82	63-94
Non-government hospital	85	72-93

* More than one-third of patients remained blind in the operated eye (25/70, 36%).

Camps were a low-cost option, but poor outcomes reduced their cost-effectiveness (US\$97 per patient). The state medical college hospital was least cost-effective, at US\$176 per patient, while the non-governmental hospital was the most cost-effective at US\$54 per patient. These authors concluded that the government of India should review its policy for government camp surgery, and consider alternatives, such as transporting patients to permanent facilities. India and other developing countries should monitor outcomes in cataract surgery programmes, as well as throughput.

Singh AJ, Garner P, Floyd K. Cost-effectiveness of public-funded options for cataract surgery in Mysore, India. *Lancet* 2000;355:180-184.

