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Abstract Information

Abstract Title:
Prevalence of Primary Glaucoma and Progression of Angle Closure Suspects and Angle Closure in a South Indian Population:

Purpose:
To determine the prevalence of primary glaucoma in a south Indian population and the progression of Primary Angle Closure Suspects (PACS) to Primary Angle Closure (PAC) and PAC to Primary Angle Closure Glaucoma (PACG) over a 5-year period.

Design:
Cross sectional with longitudinal follow up

Participants:
972 persons between 30 and 60 years of age, residing in 12 randomly chosen clusters of Vellore town

Main Outcome Measures:
1. Prevalence of POAG and PACG
2. Progression of PACS to PAC and PAC to PACG.

Methods:
In 1995, 972 persons from those randomly selected (1521)underwent a detailed ophthalmic examination.

In September 2000 a follow-up examination of the 118 persons previously diagnosed to have occludable angles, 37 persons diagnosed to have angle closure, 29 persons diagnosed to have ocular hypertension and 110 randomly selected normals from the original population was performed.

Results:
POAG (defined as IOP > 21mmHg and/or glaucomatous disc changes in the presence of a glaucomatous field defect) was 0.41 per 1000 (CI 0.08-8.1).

The prevalence of PACG (comprising what would currently be labeled PAC, appositional and synechial as well as PACG) was 43.2 per 1000 (CI 30.14-56.3).

The prevalence of ocular hypertension (defined as IOP > 21 mmHg) was 30.8 per 1000 CI (19.8 -41.9).

Angle closure was classified as appositional or synechial. The presence of disc and field damage was required to make a diagnosis of angle closure glaucoma.

50 of 118 persons with occludable angle and 28 of 37 with angle closure could be examined. 11 (22%. CI 9.8-34) persons with occludable angles developed chronic angle closure as defined. No patient developed disc or field damage ascribed to angle closure. One normal developed chronic angle closure. The relative risk for occludable angles was 24. Of the 28 patients with CAC who responded, 8 (28.5 %; 95% CI 12.3 % - 44.6 %) had progressed to chronic angle closure glaucoma. None developed blindness due to glaucoma. For progression to PAC or PACG, axial length, anterior chamber depth and lens thickness was similar in those who progressed and those who did not.

25 of 29 ocular hypertensives could be examined. After correcting for CCT, two were reclassified as normal. Four of 23 (17.4%; CI: 1.95 - 32.75) had progressed to POAG.

Conclusion:
The study provided preliminary prevalence data for glaucoma in south India as well as information on the natural history of PACS and PAC.