Family screening of primary open angle and primary angle closure glaucoma patients: the help of family glaucoma screening project

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Purpose: To assess the knowledge of patients with open angle glaucoma (OAG) and PACG and their family members about POAG and PACG risk factors and to study the referral of family members for eye examinations.

Methods: We counselled all the patients of glaucoma to ask their all siblings to come for check-up and we also contacted the relatives of glaucoma patients by means of letter/telephonic conversation and did comprehensive ocular examination to rule out glaucoma after their consent. We evaluated glaucoma patients (proband) related parents, siblings, and children about their knowledge of glaucoma risk factors at the Aravind Eye Hospital Tirunelveli. Qualified family members were offered an eye examination including SLE biomicroscopy, applanation tonometry, gonioscopy, fundus examination and pachymetry. HFA and OCT were done in suspected and definitive cases.

Results: We screened 434 relatives of glaucoma patients. Mean age was 61.6yrs; 69.12% subjects were relatives of POAG and 30.8% of PACG. 10.45% were diagnosed as definitive glaucoma. 2% patient was classified as PACG, 8.4% as POAG, 1.1% as POAS, 1.4% as PACS and 0.7% OHT. In POAG 2.2% were severe, 4% as moderate, 2.1% as mild POAG. 35% had advanced PACG.

Conclusions: Family glaucoma screening project developed a novel approach to identify definitive cases of glaucoma in siblings and those at high-risk for open angle and closed angle glaucoma. Screening of relatives of glaucoma patients deserves further study in a more representative selection of the general population.