



▼ POST GRADUATES ABSTRACTS

PG - 56 : TYPE 2 DIABETES MELLITUS AS A RISK FACTOR OF PRIMARY OPEN ANGLE GLAUCOMA: A CASE-CONTROL STUDY

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Background: Glaucoma is one of the leading causes of irreversible blindness worldwide. Elevated intraocular pressure is the only known risk factor for the disease as a result of which considerable interest has been generated in identifying the other potential risk factors. Of these diabetes is of special interest given both its high prevalence and its modifiable nature. **Objective:** To study the association between diabetes mellitus and primary open angle glaucoma (POAG).

Materials & Methods: This case control study was conducted in an institutional setting and included POAG patients as cases and age and gender matched individuals as controls. Patients with a family history of glaucoma, media opacities and those with underlying pathologies that could alter intraocular pressure were excluded from the study. Relevant history was taken regarding course of glaucoma, diabetes and hypertension. In the case group this was followed by a thorough ophthalmic evaluation including dilated fundus examination and intraocular

pressure measurement. Fasting blood glucose levels and HbA1c levels measured in the six months prior to the study were obtained from records. The prevalence of diabetes and hypertension was compared between both the groups. P value less than 0.05 was considered statistically significant.

Results: A total of 144 cases and 586 controls were included in the study. The demographics were comparable between both the groups. The prevalence of diabetes was higher in the case group with an adjusted odds ratio of 2.47 (95% CI=1.58-3.88, p= 0.001). The prevalence of hypertension was found to be lower in the case group. No significant correlation was found between fasting blood glucose levels, HbA1c levels and intraocular pressure, cup disc ratio and mean central corneal thickness.

Conclusions: Type 2 diabetes mellitus is a risk factor for primary open angle glaucoma, signifying the need for screening of the same in this subset of patients.