ABSTRACT AND KEYWORDS

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Background

1. Prevalence of Diabetes Mellitus is very high in India.
2. Primary Open Angle Glaucoma is always asymptomatic and most often diagnosed in routine eye examination.
3. Diabetes is a known risk factor for the development of Primary Open Angle Glaucoma.
4. Both diabetes and Primary Open Angle Glaucoma have polygenic inheritance.

AIM

Early detection of development of Primary Open Angle Glaucoma in diabetic patients. Early detection can avoid irreversible optic nerve damage caused by Glaucoma of open angle primary type.

MATERIALS & METHODS

This was a cross sectional hospital based study. This study period was about 12 months extending from August 2014 to July 2015.

The study was done on patients attending the Diabetology OPD based on selection criteria. A minimum of 200 patients were included in the study. Evaluation of patients was done at Department of Ophthalmology.
Before commencing the study Ethics committee approval was obtained from the Coimbatore Medical College and Government Hospital.

RESULTS:

Among 200 patients evaluated, IOP was elevated in 14 patients when measured with NCT and AT. Out of 14 patients, Corrected IOP (AT and CCT) still found to have nine patients IOP > 20 mmHg. Fundus examination showed changes suspicious of glaucoma in all the nine patients. This finding was further supported by automated perimetry which showed glaucomatous field defects in these patients.

CONCLUSION:

Screening should be done for all the diabetic patients for coexisting glaucomatous changes even if the patient is asymptomatic. This is very important in diabetic patients, as they have already compromised optic nerve head blood flow due to defects in auto-regulation mechanism.

Keywords

Diabetes Mellitus, Primary Open Angle Glaucoma, Risk factors, optic nerve head, IOP, NCT, AT, CCT, Perimetry.