

DETERMINANTS OF RETINAPATHY IN DIABETICS (2004)

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BACKGROUND & RATIONALE:

Diabetes Mellitus is among the most important c/c non-communicable diseases. Diabetes related complications account for a great deal of morbidity and mortality. Nearly entire of type I & 75% of type II DM patients will develop retinopathy after a 15 year duration of diabetes. Hence an analysis of the risk factors that lead to development of the eye diseases in diabetics can help in preventing or delaying the onset of retinopathy.

METHODOLOGY:

A hospital-based case control studies was conducted in The Regional institute of ophthalmology, Trivandrum, from September to December, 2007 covering 174 diabetes patients without retinopathy as controls. The subjects were interviewed using a semi structured questionnaire.

Results:

Meat consumption, with an odds ratio of 3.7 (95% CI=2.4 – 5.76) P value – (0.000) Hypertension with an odds ratio of 2.556 (95% CI: 1.7-3.7) with P value : 0.000. 87.5% of those with >15 year duration of diabetes had diabetic retinopathy. Statistically significant (P value- 0.000) difference between patients with DR had have a high FBS value compared to control with odds 2.38 (95% CI = 1.4 – 4.0) (P value – 0.001). Use of Insulin in the management of DM in statistically significant with odd 2.02 (95% CI 1.10 – 3.7) (P value – 0.02). The type-I DM were at almost 2 odds higher risk of developing retinopathy (95% CI:1.03 – 3.8) H/o hypercholesterolemia, habit of smoking and alcoholism were found to be insignificant. Multivariate analysis, Diabetic age & control of blood glucose along with hypertension and meal consumption were major contributors in the development of retinopathy in DM patients.

Conclusion:

These findings reveal the need for early detection of retinas change in diabetics which calls for periodic screening of diabetics at risk, along with good control of blood sugar. Blood pressure and diet can help decreasing the risk of developing retinopathy in DM patients.
