



ANALYSIS OF AWARENESS IN DIABETIC PATIENTS, EFFECTS OF DIABETIS ON EYE, NEED FOR REGULAR CHECK-UP

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ABSTRACT

AIM : To determine awareness among diabetic patients regarding need for regular eye examination and complications of diabetes on eye.

MATERIALS AND METHODS : A cross sectional study conducted using questionnaire including demographic data, history and duration of diabetes mellitus , effects of diabetes on eye, practise on regular eye check up and systemic complications among 150 diabetic patients.

RESULTS : 84.6% (127) belong to low socioeconomic class , 47.3 %(71) had blood sugar level check up every 3-4 months, 65.3%(98) does not know specific effects of diabetes on eye. 74.6%(112) know atleast one systemic complication of diabetes, 20.6%(31) aware of diabetes leading to defective vision but not aware of regular eye screening. 14%(21) aware of regular screening of their eyes. 6%(9) aware of diabetic retinopathy.

CONCLUSION: Awareness among diabetic patients about systemic complications was more and awareness on specific effects on eye and the need for regular eye check up was less . comprehensive efforts are needed to increase awareness on side effects and eye screening to reduce defective vision and blindness in future in the community.

KEYWORDS :**INTRODUCTION:**

Diabetes mellitus is fast gaining the status of epidemic in India. WHO has predicted that in India, the number of adults with DM will be from 19 million in 1995 to 80 million in 2030. Diabetic retinopathy is an important complication of DM which can cause significant visual impairment and affects both sexes equally. In India by the year 2025 approx one-fifth of all persons with diabetes will have retinopathy. Among them approx 5.7 million people with diabetes will have severe retinopathy and will require either laser or surgical intervention to preserve vision. In view of the above , awareness on eye effects of diabetes mellitus and its prevention is an important pre-requisite for prevention of complications. Routine comprehensive eye evaluation helps to detect early treatable stages of Diabetic Retinopathy which are frequently asymptomatic.

People with diabetes without evidence of Retinopathy should undergo eye examinations every year to detect it at an early stage. The major challenge for eye care programmes will be to ensure regular follow up of persons with Diabetes and compliance to repeat examination. There is a need to understand the dangers of missing ophthalmic examinations among people with Diabetes In such a situation improving their awareness towards eye care is vital to achieve goals of vision 2020 program for eliminating avoidable blindness. With this Background the present study was conducted to determine awareness among people with Diabetes.

AIM OF STUDY:

To study the Awareness among Diabetic Patients Regarding effects of Diabetes on eye and the need for regular check up.

INCLUSION CRITERIA:

All patients who are diagnosed as Diabetes Mellitus and undergoing treatment attending Govt Regional Eye hospital and Endocrinology Department KGH.

Patients of all Age groups and sexes included.

EXCLUSION CRITERIA:

Patients that were already diagnosed with Diabetic Retinopathy or had undergone some intervention for DR are excluded

MATERIALS AND METHODS :

- Study design: Hospital based cross sectional study.
- Study set up: Govt Regional eye Hospital , endocrinology department , kgh ,Visakhapatnam.
- Study period: January 2018 to May 2018
- Sample size : 150 patients

METHODOLOGY :

Data was collected using structured questionnaire.

It contained 11 questions in local language, illiterate people were assisted.

Study parameters include socio demographic details, details on history of diabetes, details on awareness of various eye effects of diabetes, practise on regular blood sugar check up and regular eye examination.

Question from the questionnaire Awareness Percentage amongst the subjects (%)

1. Duration of diabetes?
2. Are you aware of the involvement of eye and visual loss in diabetes mellitus?
3. Are you aware that the eye complications of diabetes mellitus (diabetic retinopathy) can be prevented if diagnosed early by regular screening and treated appropriately
4. Did your first contact physician who diagnosed diabetes mellitus advised you about the screening for diabetic retinopathy?
5. Do you know strict blood sugar control can help to prevent the complications of diabetes?
6. Do you know about the current available treatment (laser photocoagulation) for diabetic retinopathy?
7. Are you aware of intravitreal inj of anti-Vascular Endothelial Growth Factor treatment for Diabetic Retinopathy?

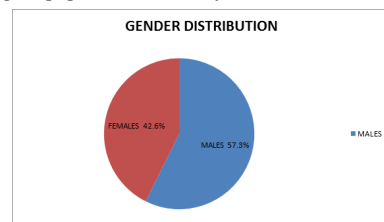
RESULTS :

In the present study

No of males: 86(57.3%)

no of females: 64(42.6%)

The mean age of population was 53.5yrs .



Among 150 pts studied

24(16%) were graduates,

48(32%) were up to atleast 10th standard,

41(27.3) were below 10th standard

37(24.6%) were Illiterate.

127(84.6%) belong to low socioeconomic status

23(15.35) belong to high socio economic group .

DURATION OF DIABETES:

< 5yrs :- 37(24.6%)

5-10yrs :- 41(27.3%)
 10-20yrs:-43(28.6%)
 >20yrs: - 29(19.3%)

- 71(47.3%) had regular blood sugar check up and had controlled blood sugar levels.
- 38(25.3%) had blood sugar levels normal but not having regular check up.

41(27.3%) had uncontrolled Diabetes due to irregular check up and irregular treatment.

	No of people	Percentage%
Diabetics with positive family history	79	52.6%
not aware of eye complications of diabetes	88	58.6%
Aware of diabetes leading to defective vision	41	27.3%
Aware of regular eye checkup but not screening	29	19.3%
aware of regular eye checkup but had only once checkup	12	85%
Screening their eyes regularly	21	14%
Aware of systemic complications but not eye complications	119	79.3%

62(41.3%) are aware of screening but not screening their eyes regularly.

21(14%) are screening their eyes regularly .Of these 11 pts had h/o Diabetes affecting eyes in the family.

9(6%) know about Diabetic Retinopathy and are regularly screening their eyes.

5(3.33%) know about laser as the treatment for diabetic retinopathy. None are aware of anti-VEGF treatment .

DISCUSSION:

In the present study , though the people with diabetes are aware of the general effects of DM, their awareness of specific effects on eye and the need for regular screening was low. Awareness about Diabetic Retinopathy was poor. Awareness was more in male patients and those with positive family history, higher education and high socio economic status.

In one study the awareness of DR was found to be 29%,need for regular eye examinations was 57%and role of laser in preventing visual loss was 17% which are comparatively higher than our study.

Other studies reported that the level of awareness about eye complications due to DM was 72% in Oman, 96% in australia,52% in USA and 98% in Japan. Recent study from theni , south India showed it as 50%.

High literacy rates and proactive counselling in other countries and illiterate people with diabetes in our study could be the reasons for the difference. The level of awareness in relation to treatment of diabetic retinopathy with laser was excellent in Oman study.

Another study in India reported that only 10% of people with diabetes knew about laser treatment of diabetes. In the present study showed <4% in this aspect.

More than 80% were aware of regular eye examination in theni study, south India compared to 41.3% in present study.

CONCLUSION:

All though awareness of people with DM in present study were aware that, diabetes effects eyes but they could not know the specific eye effects of diabetes. Majority of people know the eye effects of diabetes by the doctor they were treated for Diabetes but they are not going for regular screening of eyes. A lot of effort is needed to increase awareness regarding eye effects of Diabetes in the population. Appropriate eye health education activities in diabetic clinics may help patients with Diabetes to seek timely and appropriate care.

Awareness campaigns to increase the level of awareness on eye

complications of diabetes, regularity of screening eyes are needed for controlling diabetic retinopathy. Such campaigns are good support mechanisms to increase the utilisation of diabetic eye screening camps. Community participation is the key success for any awareness programme. Utilising the large paramedical sources available in the country for health education may ensure wider coverage and accessibility.

REFERENCES:

1. Kumar A, Goel MK, Jain RB, Khanna P, Chaudhary V. India towards diabetes control: Key issues. *Australas Med J.* 2013;6(10):524-31
2. Wild S, Roglic G, Green A, King H. Global prevalence of diabetes: Estimates for the year 2000 and projections for 2030. *Diabetes Care.* 2004;27(5):1047-53.
3. Murthy GV, Gupta SK, Bachani D Jose R, John N. Current estimates of blindness in India. *Br J Ophthalmol.* 2005;89(3):257-60.
4. Dandona L, Dandona R, Naduvilath TJ, McCarty CA, Rao GN. Population based assessment of diabetic retinopathy in an urban population in southern India. *Br J Ophthalmol.* 1999;83(8):937-40.
5. Bairwa M, Rajput M, Sachdeva S. Modified kuppuswamy's socioeconomic scale: social researcher should include updated income criteria. 2013. *Indian J of Community Med.* 2012;38(3):185-86.
6. Verma R, Khanna P, Prinja S, Rajput M, Arora V. The National Programme for Control of Blindness in India. *Australas Med J.* 2011;4(1):1-3.
7. Early photocoagulation for diabetic retinopathy. ETDRS report number 9. Early Treatment Diabetic Retinopathy Study Research Group. *Ophthalmology.* 1991;98(5 Suppl):766-85