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KNOWLEDGE AND AWARENESS ABOUT DIABETES MELLITUS AND DIABETIC RETINOPATHY AMONG PEOPLE ATTENDING OPHTHALMIC OUTPATIENT DEPARTMENT

Ophthalmology

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ABSTRACT

Aim: To assess the awareness about diabetes mellitus and diabetic retinopathy among people attending ophthalmic OPD.
Materials and methods: It is descriptive cross sectional study. A semistructured questionnaire prepared and data was collected and analyzed to determine the level of awareness among the people attending ophthalmic OPD.
Results: This study includes 450 people of which 243(54%) male and 207(46%) female with mean age of 41.7 year.213(47.3%) people are well aware of diabetes mellitus and its complications. Only 50% (225) of people knew that diabetics are more likely to develop eye problem than non diabetics. Interestingly 76.4% of diabetics have misconception that diabetes mellitus occurs only in old age. >40% of people studied do not have an idea of diabetes, its complications.
Conclusion: Awareness and knowledge regarding diabetes, its complications are still grossly inadequate. It is a need of hour to increase awareness among people about diabetes, its complications.

KEYWORDS

Diabetes mellitus , diabetic retinopathy , awareness and knowledge , diabetic complications

Introduction:
The WHO estimates that 45 million people are blind worldwide, yet an estimated 80% of blind suffer needlessly. Million could be cured because their blindness is caused by conditions that are easily treatable or preventable. With worldwide estimated 2.5million blind people, diabetic retinopathy emerges as 4th leading cause of blindness accounting for approximately 5% of blindness. Diabetes mellitus is now worldwide problem. Diabetic retinopathy is a leading cause of blindness in both developed and developing countries which is preventable by early treatment. Early treatment can only be instituted if retinopathy is detected early.

Population screening for diabetes is a separate issue but for already identified diabetics there should be adequate information provided about complication of the disease including retinopathy.

Diabetics should be aware of the importance of regular eye examination for early retinopathy which is most often symptomless. Lack of awareness is associated with poor control of risk factors of retinopathy. So, strong awareness of diabetes and its complications like retinopathy helps in early detection and management and prevention of this complication. Without awareness of diabetes and retinopathy it is impossible to prevent blindness caused by retinopathy in community.

AIM :
To assess the awareness of people attending ophthalmic OPD regarding diabetes and diabetic retinopathy.

Materials and methods:
This is a descriptive cross sectional study, done at tertiary eye care centre in the month of june 2016. People attending ophthalmic OPD were randomly selected and were requested to fill the semi structured questionnaire consisting of 12 questions on diabetes and diabetic retinopathy, 7 and 5 questions respectively.

For those who were unable to fill due to illiteracy or being visually impaired, the researcher filled the questionnaire on their behalf.

After collecting the questionnaire from participants, a small information leaflet containing information regarding diabetic retinopathy, risk factors, importance of periodic follow up and treatment, was given to the participant and any further queries are clarified as a small effort to increase the awareness.

The questions were assigned scores depending on correct response. For each correct response to question the score of 1 is assigned , for any response other than the correct one, score of 0 was assigned. The sum of the scores of all the questions denote the knowledge score of each individual, which ranged from minimum score 0 to maximum score 12. The median knowledge score was calculated as6, and population was divided into two groups, those with score >6 as "good knowledge" and those with score </=6 as "poor knowledge." Population was divided into two groups diabetics and non-diabetics for comparison of awareness among them. The data is analyzed by descriptive analysis.

RESULTS:
Total of 450 people studied includes 46% females (207) and 54% males (243) with a mean age of 41.7years (range 20-82years).

Among them 55.49% (324) were literate, of which 36% (165) having minimum school knowledge and remaining 28% (126) were illiterate.

Among literates 67.5% (213) people are having good awareness regarding diabetes and diabetic retinopathy, whereas among 28% of illiterate 28.5% (108) are having good awareness regarding diabetes and diabetic retinopathy.

Among population studied 11% (51) were diabetic and 88% (399)were non diabetic. Among diabetics 59% (30) had good awareness whereas 57% of non diabetics had good awareness.

Only 50% (225) of population studied knew that diabetics are more likely to develop eye problem compared to non diabetics. 56.6% of participants knew that retinopathy was related to the duration of the diabetes mellitus. 82.3% (42) of people among diabetics were aware that all diabetics should have periodic eye checkups, whereas63% among non diabetics were aware of periodic eye checkup. 58.8%among diabetics and 48.8% among non diabetics are aware that diabetics are more likely to develop ocular complications than non diabetics.

44.7% of population studied were not aware that diabetes mellitus can lead to blindness. Overall >40% of people studied did not have an idea of complications of diabetes and treatment available.

Table :1
Pie chart showing sex distribution:

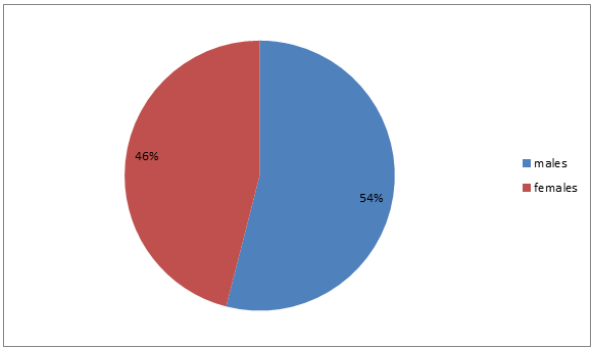


Table:2

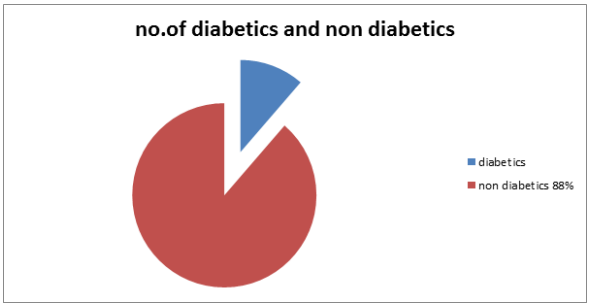


Table:3
Distribution according to literacy rate

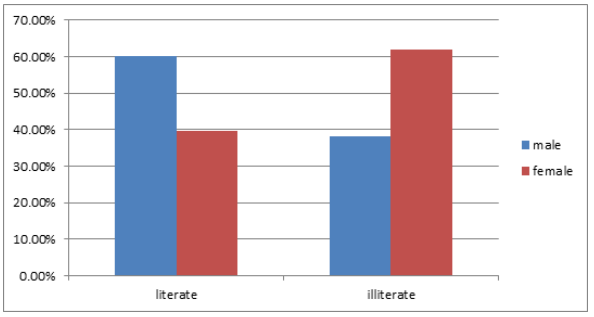
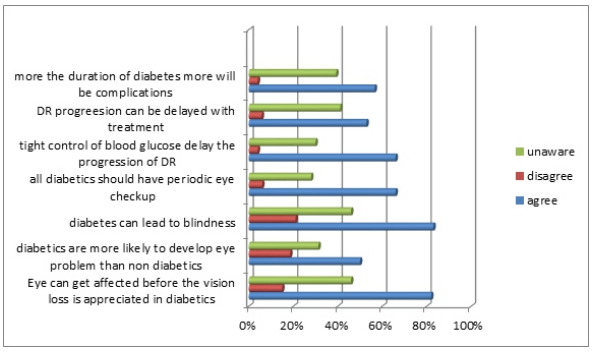


Table:4 Response to the questionnaire:



Discussion:

It is well known that prolonged duration of disease results in various disease related complications. It is mainly due to ignorance and poor disease control, thus contributing to disease related morbidity.

A number of health awareness studies have been performed in developing countries (JAMES etal 2008) however very limited literature exists on knowledge and awareness of diabetic retinopathy among people with diabetes in India.

This study revealed good knowledge level in 58.8% of population studied and about 55.3%of population knew that diabetes mellitus could cause blindness (table 4) . According to KAP study on diabetes mellitus and diabetic retinopathy by Hussain R etal done in sub urban town of south India, 55.6% of population studied had a good knowledge.

According to the Chennai urban rural epidemiology study only 19%(4951/26001)of the population and only 40.6%of diabetics were aware that diabetes could produce some complication.

In another KAP study by **Rani** et al 49.9%(966)individual had knowledge about diabetes and 37.1%(718) about retinopathy and they attributed literacy as the reason for the better knowledge.In **Murugesan** et al study they observed that lower the rate of education, lower is the level of awareness among them. This study revealed that 65.7%(213) people are having good knowledge among literates when compared to illiterates of which only 28.5%are having good knowledge.(table 3) Thus it shows that higher the literacy level better is the awareness.

This study shows that 82.3%(42) of people among diabetics were aware that all diabetics should have periodic eye checkups ,whereas63% among non diabetics were aware of periodic eye checkup(Table 4).58.8%among diabetics and 48.8% among non diabetics are aware that diabetics are more likely to develop ocular complications than non diabetics(Table 4). This reveals that diabetics have better knowledge and awareness compared to non diabetics. Probably in due course of disease diabetics have acquired more knowledge and awareness.

A general lack of awareness about diabetes and its complications like diabetic retinopathy the risk factors that play a role in the development of retinopathy and importance of eye examination is the main barrier in the early detection and prevention of blindness caused by diabetic retinopathy..

This study has limitation of small sample size and being a hospital based study, the results cannot be extrapolated to general population. However it does give us an idea regarding awareness level among population.

Better literacy rate contributes to better awareness among population. The multipronged, prevention, awareness, counseling and evaluation study in Chennai has proved that through direct public education and mass media campaigns, the level of awareness about diabetes and its complications can be improved substantially.

Thus awareness creation is a vitally important step to battle against any disease in the community. This is especially true of the growing problem of diabetic retinopathy. Studies previously completed have revealed that diabetic retinopathy despite its status as one of greatest cause of blindness in both developed and developing countries, is virtually unknown to large majority of the population.

Without awareness of the disease, it is impossible for any individual to aid the cause of preventing blindness from DR.

Thus, awareness creation with emphasis on the complication of diabetes and on the necessity of screening and timely follow-ups to prevent sight threatening complications associated with diabetic retinopathy is the first step in reducing the burden of blindness due to diabetic retinopathy.

Conclusion:

WHO estimates >180 million people worldwide have diabetes mellitus and expected to increase exponentially in next 20 years. Diabetic retinopathy is a leading cause of blindness in the world. Diabetics had better awareness about the disease and complication compared to non diabetics due to course of disease. Education level also has an effect on awareness. Better the literacy level better is the awareness. In overall population , awareness and knowledge about diabetes and its complication and treatment is still grossly inadequate. Thus, it is a need of hour to increase the level of awareness among people about diabetes its complications and treatment.

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