

Research Article

A study of awareness of ocular complications of diabetes among students

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ABSTRACT

Background: Diabetes mellitus has become a major public health problem throughout the world. The aim was to study the awareness of ocular complications due to diabetes mellitus among students.

Methods: A questionnaire based study was conducted among 430 students (non-medical). The questions tested their awareness about diabetes mellitus and also about the potential ocular complications of the disease.

Results: Out of 430 students 73.02% (314/430) have heard about diabetes mellitus but they did not know that it can affect the eye and can lead to blindness. They were unaware that regular eye check-up is important in diabetes mellitus. 18.83% (81/430) were aware about the disease and its potential to cause vision threatening complications. 8.13% (35/430) were not aware about diabetes mellitus. Overall only 18.83% had some basic knowledge about diabetes and its complications.

Conclusions: The level of awareness about ocular complications due to diabetes mellitus is low among students. Therefore steps should be taken to increase the awareness about diabetes and inculcate some basic knowledge about its potential complications especially vision threatening diabetic retinopathy. It should be strongly emphasized that periodic eye check-up is important to prevent needless blindness and visual dysfunction.

Keywords: Glaucoma, Non-medical students, Awareness

INTRODUCTION

Diabetes mellitus has become a major public health problem throughout the world.¹ The prevalence of diabetes mellitus is increasing worldwide and diabetic retinopathy has become one of the one of the leading causes of blindness in the world.²⁻⁴ The prevalence of diabetes among the young is on the rise. Awareness about the ocular complications of diabetes mellitus will help the patients to seek medical care before the onset of ocular problems by subjecting themselves to regular screening. Even after the onset of retinopathy regular screening and early intervention can limit vision threatening complications.

The objective was to study the awareness of ocular complications due to diabetes mellitus among students.

METHODS

A questionnaire based study was conducted among 430 students (non-medical). The questions were drafted in a way that it was simple and easy to understand. Majority of the questions were closed ended questions which required a yes or no for an answer. The questions tested their awareness about diabetes mellitus and also about the potential ocular complications of the disease (Appendix 1). Only students who were not affected by diabetes mellitus were included in the study. Any student who was a diabetic was excluded from the study.

RESULTS

Out of 430 students 73.02% (314/430) have heard about diabetes mellitus but they did not know that it can affect the eye and can lead to blindness. They were unaware that regular eye check-up is important in diabetes mellitus. 18.83% (81/430) were aware about the disease and its potential to cause vision threatening complications. 8.13% (35/430) were not aware about diabetes mellitus (Figure 1). Overall only 18.83% had some basic knowledge about diabetes and its complications (Figure 2).

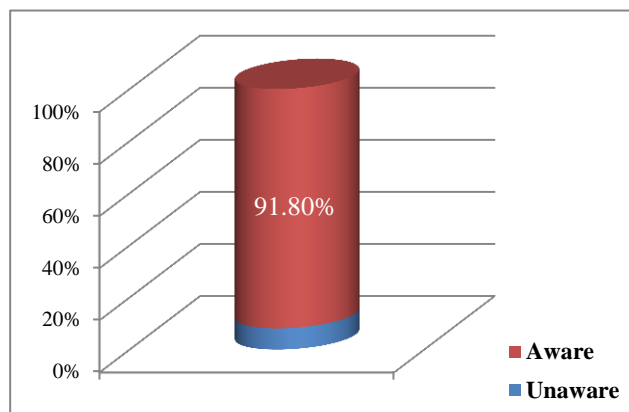


Figure 1: Awareness of diabetes mellitus among student.

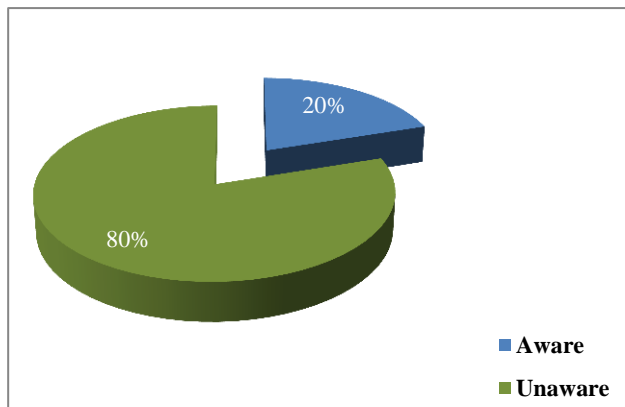


Figure 2: Awareness of ocular complications of diabetes mellitus among students who are aware of the disease.

DISCUSSION

According to WHO, More than 170 million persons are affected by diabetes mellitus worldwide. By 2030 it will affect an estimated 366 million especially affecting the people in working age group in developing countries. The prevalence of diabetes is rapidly increasing in India. More than 60 million people are diagnosed with diabetes in India.^{5,6} Diabetes is not limited to adult population and the prevalence has been increasing in the younger population. The change in dietary habits and sedentary

lifestyle especially among the young people and the increase in obesity among them is also a major contributory factor.⁷⁻¹⁰

Diabetic retinopathy is the 4th leading cause of avoidable blindness accounting for approximately 5% of blindness throughout the world.¹¹

Diabetic retinopathy can occur in both type 1 and 2 diabetes mellitus. It is a micro vascular complication of diabetes mellitus. Almost all individuals with type 1 diabetes and more than 70% with type 2 of 20 years duration will develop retinopathy.¹² Since young population is affected the chance of them being affected by diabetic retinopathy is high. Because of their age, they are going to live with this disease for a longer period. Therefore they are more likely to be affected by diabetic retinopathy.

The development of retinopathy cannot be prevented in people affected by diabetes mellitus. But needless visual loss and blindness can be prevented by regular eye check-up by an ophthalmologist. Many patients who develop vision threatening complications of this disease do not present themselves to the ophthalmologist due to lack of awareness of the potential ocular complications of diabetes.

In our study we conducted a survey among students to find out their level of awareness of about diabetes mellitus and its ocular complications.

The level of awareness about diabetes mellitus was more than 90% among students. But only 18.83% had some knowledge about the disease and were aware about the vision threatening complications of diabetes mellitus. 73.02% have heard about diabetes but did not have any knowledge about the disease.

From this study it is evident that the level of awareness about ocular complications due to diabetes mellitus is low among students.

Therefore steps should be taken to increase the awareness about diabetes and inculcate some basic knowledge about its potential complications especially vision threatening diabetic retinopathy. It should be strongly emphasized that periodic eye check-up is important to prevent needless blindness and visual dysfunction.

CONCLUSION

The awareness about diabetes mellitus among students is high. But they lack knowledge about the disease and its potential to cause visual dysfunction and irreversible blindness. It is very important to increase the awareness among the young population who are potential diabetics. More awareness programmes should be conducted to increase the awareness among them.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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Appendix 1: Sample questions from the questionnaire

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|--|--------|
| 1. Have you heard of diabetes? | Yes/No |
| 2. If yes, do you know that is due to uncontrolled blood sugar? | Yes/No |
| 3. Do you know that it can affect all organs in the body? | Yes/No |
| 4. Do you know that diabetes can affect eye? | Yes/No |
| 5. If yes do you know it can affect the light sensing part of the eye? | Yes/No |
| 6. Do you know in diabetes, regular eye check-up is important even if eyes vision is normal? | Yes/No |