



Screening Diabetic Retinopathy in AVBRH, Sawangi, Wardha with a Fundus Camera

Ophthalmology

**DR SAPAN
JAISWAL**

POST GRADUATE MS OPHTHALMOLOGY

**DR SOHAN
LOHIYA**

PROFESSOR, MS OPHTHALMOLOGY

ABSTRACT

To screen diabetic retinopathy in people with diagnosed diabetes mellitus attending our hospital. 500 patients were screened, most of the patients were having non proliferative diabetic retinopathy and were not aware of there disease and its consequences. Some of the cases were suffering from proliferative diabetic retinopathy and were undiagnosed before. Proper counsellings were done and patients were regularly screened according to there severity and were even referred for further management. Mean age of patients with DR was 65 years. Mean onset of diabetes was 18 years. An insulin therapy was found in 27 patients (46.6%). Haemoglobin A1c was known in 26 patients (44.8%) with a mean value of 8.14%. Nearly 60% of patients with DR did not have their recommended annual consultation. Our analysis supports the extension of the screening interval for people with diabetes mellitus beyond the currently recommended 12 months. Screening DR with a fundus camera can improve the follow-up of diabetics in rural areas

KEYWORDS:

INTRODUCTION:

Diabetic retinopathy (DR) is a leading cause of visual impairment. Screening is a key issue as visual loss is preventable with proper treatment. The accessibility to an ophthalmologist and the poor follow-up of many diabetics remain two main problems preventing from a better rate for screening of diabetic retinopathy. We assessed a screening method with a fundus camera in Avbrh, sawangi, wardha.

MATERIALS AND METHODS:

This program required collaboration between ophthalmologists and general practitioners (GP) with the support of regional health care structures. Each patient had four fundus photographs with pupillary dilation. Demographics of the patients, duration and type of diabetes, treatment for diabetes, systemic and biologic characteristics were collected. Photographs were analysed in the Department of Ophthalmology. Results were sent to GP and to the patient. In case of abnormal examination, patients were counselled for further management.

INCLUSION CRITERIA:

Patients above 15 years of age belonging to either sex diagnosed to have systemic diabetes mellitus diagnosed by the general practioners.

Diabetic retinopathy grading Trained staff use a standardised protocol to grade diabetic retinopathy. We used the ETDRS classification for grading categories of retinopathy For the statistical analysis, we defined referable retinopathy as participants with mild nonproliferative or proliferative retinopathy (with or without maculopathy), or maculopathy with background retinopathy. This category relates to those who would, according to guidelines, need referral to the hospital eye service for further assessment or treatment.

RESULTS:

500 patients were screened. They were mainly referred by general practitioner and many patients consulted after information from the national health care system. Among these patients, 58 had a diabetic retinopathy (8.6%). There were exclusively nonproliferative retinopathies. There were 9% unclassified photographs. Mean age of patients with DR was 65 years. Mean onset of diabetes was 18 years. An insulin therapy was found in 27 patients (46.6%). Haemoglobin A1c was known in 26 patients (44.8%) with a mean value of 8.14%. Nearly 60% of patients with DR did not have their recommended annual consultation. However, the conditions for screening must be improved to decrease the number of unclassified photographs.

Total patients	Diabetic retinopathy	No evidence of diabetic retinopathy
500	58	442

Age	Patients	%
15-25	5	1%
26-35	18	3.6%
36-45	43	8.6%
46-55	50	10%
56-65	150	30%
66-75	154	30.8%
>75	80	16%

	Screened patients	Patients with diabetic retinopathy
Number	500	58
Mean age	66.2	65
Type 2 diabetic	68%	51.4%
Insulin therapy	22%	46.1%
Mean Hb1Ac	6.80%	8.10%
Annual follow up	31%	34%

CONCLUSION:

Screening DR with a fundus camera can improve the follow-up of diabetics in rural areas. Our analysis supports the extension of the screening interval for people with diabetes mellitus beyond the currently recommended 12 months

Future research

Our future research will explore the implications of varying the screening interval using risk stratification. To better predict the development of retinopathy, further research should investigate additional risk factors (for example, the individual and collective effects of glycaemic control (HbA1c), blood pressure, albumin excretion, and lipid status, as well as possible treatments). These findings could improve risk stratification by better defining safe screening intervals on an individual basis. Another important area to investigate further includes the economic effect of the different screening intervals