WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
SJIF Impact Factor 7.523
Volume 6, Issue 8, 2146-2149. Review Article ISSN 2277– 7105

OCULAR MANIFESTATION OF DIABETES

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Article Received on
20 June 2017,
Revised on 10 July 2017,
Accepted on 30 July 2017
DOI: 10.20959/wjpr20178-3610

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INTRODUCTION

Diabetes mellitus is a chronic disease with long-term macrovascular and microvascular complications. Included in these complications is diabetic retinopathy. Diabetic retinopathy is often asymptomatic, but may be evident early in the disease process. This is thought to be due to both better detection and increasing rates of diabetes.[2] Diabetes is the leading cause of new onset blindness for people aged 20 to 74 years.

BACKGROUND/HISTORY

This was a case study of a 44 year-old woman who came came into the Clinic with the complaint of blurred distant and near vision in both eyes even with her glasses for a period of 3 months. She obtained her present glasses 6 months before and she claimed that she saw clearly with the glasses when they were obtained.

She claimed neither to be hypertensive nor diabetic. No family history of hypertension or diabetes and no family history of ocular problems.

FINDINGS

Old Spectacle Rx

OD: -2.25-0.50 x 09060

OS: -1.75- 0.50 x 090

Add + 2.00

Unaided VA

OD: 6/36, N24@40cm

OS: 6/36, N24@40cm

Aided VA @6m

OD: 6/18, N12@40cm

OS: 6/18, N12@40cm

Anterior Segments

OU Clear Corneae

OU Normal pupillary reaction to light

OU Normal bulbar and palpehral conjunctivae

Ophtalmoscopy

OU Discs NAD

OU Slightly dull foveal reflexes

OU Normal caliber ratio

OU Normal A/V Crossing

Retinoscopy

OD: - 4.00- 0.75 x 090

OS: -5.25-0.50 x 090

Subjective

OD: - 4.00- 0.25 x 090 6/5 N5

OS: - 4.75- 0.25 x 090 6/5 N5

Add + 2.75

INVESTIGATIONS

The drastic change in refraction within 6 months made me to ask the patient if she was experiencing polyuria which she admitted was true. She was then asked to go for a fasting blood sugar test and come back to the clinic with the result in one week's time. The result of the FBS was 180mg/dl as against a normal range of 80 to 100 mg/dl.

A diagnosis of diabetes mellitus was queried and she was referred to a general medical practitioner for confirmation of diagnosis and management.

She was counseled not to place any order for a new pair of glasses as the as the change in her refraction was as a result of high blood sugar.

She came back to the clinic to show so much gratitude for the prompt diagnosis of her diabetes through an eye examination.

She also said her vision had improved as she could see a lot better with her old glasses. She was given an appointment for another refraction procedure when her blood sugar was stable.

DISCUSSION

Ocular manifestations of diabetes include the following:

1. Changes in refraction which tends toward more myopia, and this tends to occur at a relatively early stage.
2. Snowflakes cataract and senile cataract.
3. Loss of accommodation.
4. Retinitis pigmentosa.
5. Diabetic retinopathy.

CONCLUSIONS

Finally of all of the possible ocular manifestations of diabetes, a change in refraction is the one most likely to enable the Optometrist detect a previously undiagnosed case of diabetes, this is because a change in refraction tends to occur at a relatively early stage.

The management of diabetes-related eye diseases is primarily preventative, and regular eye examinations and appropriate Optometrists referral remains the key strategy to reduce the impact of diabetes-related vision loss. In many instances, vision loss associated with most of the conditions discussed is gradual.

ACKNOWLEDGMENT

I wish to acknowledge the contributions of Dr. Faustina MacDonald Idu, Dr. Eki Oghre, Dr. Efe Odjimogho, entire members of staff of Optometrists and Dispensing Opticians Registration Board of Nigeria (ODORBN) and my family.

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