

ABSTRACT

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Prevalence of Diabetic Retinopathy among Omani Diabetics who Attend Secondary Health Care Units in Muscat

Objectives:

- 1. To calculate prevalence of diabetic retinopathy and risk factors among Omani with diabetes who attend Secondary Health Care Units in Muscat**
- 2. To determine the presence of Diabetic Retinopathy in the first eye screening of newly diagnosed diabetics**
- 3. To calculate the percentage of sight threatening conditions related to Diabetic retinopathy**

Methodology:

This is a cross sectional study which conducted in secondary care units in Muscat. All type 2 diabetic Omani patients who are referred from Primary Health Care for diabetic retinopathy screening during January 2018 were included in the study. Some patients were excluded to get reliable information. All patients had dilated funds and evaluated by ophthalmology doctors.

Data collected from Alshifa electronic health record system. Patients divided into three groups. The first group includes the newly diagnosed diabetics to find out how many of them present with diabetic retinopathy on first visit

The second group includes the previously diagnosed diabetics (but free of diabetic retinopathy).

The third group includes the patients with diabetic retinopathy coming for follow up. Sight threatening conditions evaluated and recorded. These include: Diabetic Macular Edema, Vitreous Haemorrhage, tractional Retinal detachment.

The estimated sample size was 616, which determined based on the population size 9000 (total number of registered diabetic patients in Muscat region during 2018), anticipated prevalence of 15% with a margin of error 3%, confidence level 95%.

Results:

The study showed Prevalence of diabetic retinopathy is 19.6% and prevalence of sight threading condition is 5%

DR in the first eye screening of newly-diagnosed diabetics (6 patients) was 1%.

Patients previously diagnosed diabetics (but free of DR): 503 (81.7%)

Patients with DR coming for follow up 107 (17.4%)

There was a statistically significant low positive correlation between duration of diabetes and diabetic retinopathy ($r= 0.371$, $p= 0.0001$).

Diabetic retinopathy is higher on those with hypertension and nephropathy. Also noticed to be higher on male and those using insulin.

Conclusion

The prevalence of diabetic retinopathy is 19.6% and prevalence of sight threading conditions is 5%. Diabetics retinopathy is a widespread condition. It is important to have updating data to increase the awareness in the sociality and to make updating protocol for eye care services. However, more research is needed to have better understanding of the disease concentrated on risk factors associated with DR and type 1 diabetic.