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SEVERITY OF RETINOPATHY AND ERECTILE DYSFUNCTION AMONGST DIABETICS: REALITY AND ASSOCIATION

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Background:

Diabetic retinopathy (DR) and erectile dysfunction (ED) share common risk factors including mediator changes. Previous studies showed significant association between these two however they were not specific enough in view of the wide range of severity of DR. Thus, this study was designed to evaluate the prevalence and association of ED in patients with different severity of DR and maculopathy

Materials and Methods:

A cross sectional study was conducted in UKM Medical Centre involving 124 male with type II diabetes mellitus (DM). Demographic and medical information data were taken from medical records. The 5-Item Version of the International Index of Erectile Function (IIEF-5) was used to diagnose ED. Severity of DR and maculopathy were determined according to Early Treatment Diabetic Retinopathy Study (ETDRS).

Results:

This study revealed that the prevalence of ED was 67.7% (n=84). The percentage of ED among Non Proliferative DR (NPDR) and Proliferative DR (PDR) patients were 95.0 and 93.8 respectively, which was higher than 56.8 among patients with no DR. There was significant association between ED and severity of DR (p<0.001). All patients (n=23) with maculopathy had ED (p<0.001). Multivariate analysis showed that ED is independently associated with NPDR (OR 32.421, 95% CI, 2.612-402.473), PDR (OR 22.106, 95% CI 1.128-433.297), duration of having DM of 5 to 10 years and more than 10 years (OR 12.148, 95% CI 2.909-50.738 and OR 5.277, 95% CI 1.380-20.188), Chinese and Indian ethnicity (OR 3.394, 95% CI 1.016-11.333 and OR 11.630, 95% CI 1.584-85.36) as well as age (OR 1.145, 95% CI 1.065-1.231).

Conclusion:

The findings from this study verified that the prevalence of diabetes-related ED amongst DR and maculopathy was high. As these factors were significantly linked, hence all patients with DR and maculopathy should be screened for ED.

Keywords:

diabetic retinopathy, erectile dysfunction, maculopathy, IIEF-5, diabetes mellitus