EVALUATION OF DRY EYE STATUS IN TYPE II DIABETICS AND ITS ASSOCIATION WITH SEVERITY OF DIABETIC RETINOPATHY

ABSTRACT:

Introduction: Ocular surface diseases, such as dry eye is frequently present in patients with diabetes mellitus (DM) either symptomatic or asymptomatic. It can cause mild discomfort to serious corneal complications affecting the visual quality of life. This study has been done to detect the dry eye status in type II diabetics and assess its association with severity of diabetic retinopathy (DR).

Materials and methods: This was a hospital based, cross-sectional study where 100 patients with type II diabetes and 100 age and sex matched controls were enrolled. The dry eye status was evaluated using Ocular surface disease index (OSDI) symptom score, Tearfilm break-up time (TBUT) measurement and the ocular surface staining score. The presence of severity of DR were determined by fundus examination and graded according to the ETDRS criteria.

Results: Among 100 diabetics, 57% had significant dry eye. OSDI symptom score shows significant dry eye in diabetic patients with retinopathy. Schirmer, TBUT values were significantly lowered in diabetics when compared to controls. Significant association about 82% was found between dry eye and duration of DM. We also found a positive association between the dry eye and the severity of DR (p<0.05%) with more prevalence of dry eye in the advanced retinopathy group.
**Conclusion:** Dry eye and diabetic retinopathy share a common association in Diabetes. Dry eye is more frequent in patients with longer duration of diabetes and in patients with diabetic retinopathy.

**KEYWORDS:** Dry eye, diabetic retinopathy, OSDI score, Tearfilm break-up time, Schirmer’s test.