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# The clinical-pathological evaluation of dry eye in diabetes mellitus

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**Abstract**---Histopathologic ally in patient with diabetes the basement membrane is fragile in cornea which leads to recurrent corneal erosion. it was observed that reflex tearing was decreased & associated ocular surface diseases leads to a state of dryness in eye with diabetic patient. There is a close relationship between diabetic retinopathy and Kerato conjunctivitis Sicca ( $P < 0.006$ ) with no laser Rx in diabetic eye in comparison to laser treatment. The present study on clinicopathological evaluation of dry eye status in diabetes mellitus was carried out in department of ophthalmology V.S.S.M.C.H, Burla between June 2006 - June 2008 with active co-ordination of the department of ophthalmology and pathology.

**Keywords**---*Ophthalmology, Pathology, Dry Eye, Diabetes Mellitus*

**Introduction**

1-4 Diabetic keratoepitheliopathy is sometimes hard to cure and can induce quantitative and qualitative abnormalities in tear secretion, decreased corneal sensitivity, and poor adhesion of regenerating epithelial cells[1,2] Histopathologically in patient with diabetes the basement membrane is fragile in cornea which leads to recurrent corneal erosion.[3,4 ]Moreover, it was observed that reflex tearing was decreased & associated ocular surface diseases leads to a state of dryness in eye with diabetic patient. [5] There is a close relationship

between diabetic retinopathy and Kerato conjunctivitis Sicca ( $P < 0.006$ ) with no laser Rx in diabetic eye in comparison to laser treatment. [6,7]

## Method

### Material and Method

Patient with Diabetes mellitus attending the outpatient department and admitted in department of ophthalmology V.S.S Medical College and Hospital, Burla during the period of June 2006 to June 2008 were included in the study. Patients were evaluated clinically over 2yr under slit lamp during each visit. Schirmer's test, TFBT were done in all patients irrespective of duration of diabetes, impression cytology was done at initial visit and at the end of six month and fasting blood sugar level done at each visit with glycosylated hemoglobin level done every 3months. Preservative free lubricating eye drops prescribed to all and necessary information over diabetic diet and strict adherence for diabetic medicines were given and patient was advised to come for follow-up every three months and necessary referral for diabetic retinopathy treatment was given when required. Patients who failed to follow for less than six months were excluded from study.

### Proforma

Registration No.	:
Name and address	:
Age and Sex	:
Religion:	
Socio — economic status	:
Occupation	:
Chief complaints of patients	:
History of present illness	:
Past history	:
Family history	:
History of drug administration	:
History of past ocular disease	

## 3.0 Observation &amp; Discussion



The present study on clinicopathological evaluation of dry eye status in diabetes mellitus was carried out in department of ophthalmology V.S.S.M.C.H Burla between June 2006 — June 2008 with active coordination of the department of ophthalmology and pathology.

A total of 213 patients with diabetes mellitus participated in the study and 191 age, matched nondiabetic was taken as control.

Table 3.1  
Sex Distribution

Sex	Number of patients	Percentage
Male	103	48.35%
Female	110	51.64%
Total	213	100%

Among 213 patients

- 110 (51.64%) were female patients.
- 103 (48.35%) were male patients.

In our study there was no significant difference among male and female population, our study is supported by following: Dry eye score had a good correlation with diabetic retinopathy and photocoagulation ( $P < 0.01$ ), but was poorly correlated with age, gender, insulin, duration of diabetes mellitus, and metabolic control ( $P > 0.05$ )

## Results

The present study on clinicopathological evaluation of dry eye status in diabetes mellitus was carried out in department of ophthalmology V.S.S.M.C.H, Burla between June 2006 - June 2008 with active co-ordination of the department of ophthalmology and pathology.

1. A total of 213 patients with diabetes mellitus participated in the study.
2. Out of which 110(51.64%) were female patients and 103(48 35%) were male patients.
3. 63 (29 57%) patients were type 1 diabetes (IDDM) and 150 (70 43%) patients were of type 2 diabetes (NIDDM).
4. Among 213 patients with diabetes 84 (39 43%) patients were found to have dry eye with schirmer's test positive and TFBT less than 10sec.

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