SUBJECTS, METHOD AND MATERIAL
MATERIAL AND METHODS

MATERIAL:

The present study has been carried out in the department of Ophthalmology in active collaboration with diabetic clinic, department of Medicine, M.L.B. Medical College, Jhansi.

The selection of cases was done from the patients attending diabetic clinic and also diabetic patients attending the out patient department of Ophthalmology during their routine eye checkup. These patients belonged to Jhansi and near by district of U.P. and M.P. A total of 106 cases were selected for the study from 1995 to 1996.

METHOD:

Details of the findings of each patient was recorded on the prescribed working proforma. General information of patient along with duration of disease, duration of treatment, type of treatment whether insulin or non-insulin dependent, control of blood sugar, any complications associated with diabetes was also enquired. Ocular history was obtained in detail and complete ophthalmic examination was done which include recording of the following:
1. **Visual acuity**:

   This was recorded in every patient with the help of Snellen’s distant chart (Snellen 1862), if vision was very much impaired then hand movements, perception of light and projection of rays was recorded.

2. **Examination under diffuse light**:

   By the help of well focussed ordinary torch eyes were examined externally under diffuse light. Orbit and face was examined for any facial asymmetry or deformity. Eyebrows for any hair loss, movements of eye ball and position, eye lashes for partial or complete loss, regular or irregular pattern. Lid margins for any signs of inflammation, sty and drooping of lids and inrolling or outrolling of lid margins.

   Conjunctiva was examined for conjunctival blood vessels any aneurysms, congestion, haemorrhage, conjunctivitis and nodule. Non specific changes such as pterygium, pinguecula and xerosis were also noted. Sclera for any signs of inflammation viz. scleritis and episcleritis and ciliary staphyloma. Cornea was examined for superficial interstitial and exposure keratitis, vascularisation of cornea, opacity and ulcer were also noted, if ulcer was suspected, it was confirmed by staining of cornea with 2% fluorescein solution, corneal sensation was also tested with
cotton wisp. Anterior chamber was examined for its depth and contents especially to find out keratic precipitate and flare.

Iris was examined for colour, surface, pattern any neovascularization, synechiae and atrophy.

Pupil was examined for size, shape and reaction to light. Lens was examined for any opacity or pigmentation over its anterior capsule.

EXAMINATION UNDER LOCAL ILLUMINATION:

Slit lamp examination of each case was done in a semidarkened room in ophthalmic department. Patient was made to sit on stool and rest his head in a proper position. All the structures of anterior eye were examined by various methods of illumination, i.e. diffuse illumination, sclerotic scatler, direct focal illumination, direct and indirect retroillumination, zones of specular reflection and indirect illumination.

Details of the lesions of lids, conjunctiva, cornea, anterior chamber, iris and lens were noted. Special attention was given to find out early punctate keratitis, staining of cornea, folds in decemets membrane.

4. Colour vision test was done in patients having visual acuity of 6/6 by Ishihara colour plates. Patients having cataract and aphakia were not included.
5. **Tonometry**: Intraocular tension was recorded by standard certified indentation schiotz's tonometer under surface anaesthesia, 4% xylocaine instilled into eye.

6. **Fundoscopy**: Pupils of the patient's eyes were dilated using 10% phenyl epherine drops and fundus was seen by direct ophthalmoscope and the retinal status was graded into 4 grades.
   
a) Fundus with no significant findings.

b) Diabetic retinopathy stage I (Background retinopathy).

c) Diabetic retinopathy stage II (Preproliferative retinopathy).

d) Diabetic retinopathy stage III (Proliferative retinopathy).

**AIMS OF STUDY**: To study the ocular changes seen in diabetes mellitus in Bundelkhand region.
Case No. : 
OPD / MRD No. : 
Date : 
Name : 
Age / Sex : 
Literate / Illiterate : 
Address : 
Socio Economic Status : 
Age at onset and duration of Diabetes : 
Type of Diabetes IDDM / NIDDM : 
Ocular History :

Ocular Examination
Head Posture : 
Facial Symmetry : 

Orbit :

Eye Brows :

Eye Ball Position and Movements :

Eye Lids :

Palpebral Aperture :

Conjunctiva :

Cornea :

Sclera :

Anterior Chamber :

Iris :

Pupil :

Lens :

Lacrimal Apparatus :

Vision :

Colour Vision :

Tension :

Field of Vision :

Slit Lamp Examination :

Fundus :