MATERIAL AND METHOD
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The present study was carried out in the department of Ophthalmology, M.L.E. Medical College Hospital, Jhansi for a period of one year between July, 1989 to June, 1990. Patients diagnosed as phlyctenular keratoconjunctivitis (phlyctenulosis) were taken for study. Both sex and all age groups were taken for study.

METHOD:

Following methods were adopted for almost all patients.

HISTORY:

(History was taken to the attendants in case of children, otherwise to the patients).

Patients attending O.P.D. of department of Ophthalmology, M.L.E. Medical College Hospital, Jhansi and diagnosed as a case of phlyctenular keratoconjunctivitis (phlyctenulosis) were recorded for Name, age, sex, full address, socio-economic status. For socio-economic status assessment was done on the basis of per capita income.

Chief complaints were recorded in chronological orders.

HISTORY OF PRESENT ILLNESS:

Each of the chief complaints was elaborated and for any kind of injury before onset of symptoms. Patient was
also asked for the symptoms suggestive to the tuberculosis (e.g. chronic cough, evening rise, temperature, impaired or loss of appetite, loss of weight etc.) night sweating.

**Past history**:

Past history was taken for any attack of corneal ulcer, injury in eye or previous attack of some kind of disease. History of tuberculosis or antitubercular treatment in past time.

**Family history**:

Taken for attack of such type of disease, or tuberculosis in his family member.

**History of immunization**:

This was asked specially for BCG immunization and confirmed by examination at the site of B.C.G. vaccination.

2. **Examination**:

Examination part has been divided into three -

- General examination
- Systemic examination
- Local examination

- **General Examination**:

All the points of general examination were noted and special attention was paid to the lymphadenopathy (examination of all groups of lymph nodes).
. **Systemic examination:**

All systems, eg. central nervous system, cardiovascular system, abdomen and respiratory systems were examined. Respiratory system was examined carefully for detection of clinical pulmonary tuberculosis.

. **Local examination:**

Local examination was done in diffuse light with help of binocular loupe.

Slit lamp examination was done to detect the minute involvement of cornea.

Staining with 2% fluorescein dye was done when suspected corneal ulceration or involvement of cornea.

3. **Investigation:**

After completion of history and proper examination of patient, patient was investigated. Following investigations were done.

(1) Blood
(2) Urine
(3) Stool
(4) Radiological examination of chest (X-ray chest P.A. view)
(5) Tuberculin test (Mantoux test).
1. **Blood:**

   i. **Total leucocyte count:**
   It was done by neubour chamber method and expressed as cells / cu mm.

   ii. **Differential leucocyte count:**
   It was done by using Lasmann's stain.

   iii. **Haemoglobin:**
   It was estimated by Sahli's acid haematin method and expressed in gm / 100 ml.

   iv. **Erythrocyte Sedimentation Rate:**
   Wintrobe's method was adopted.

2. **Urine:**

   Urine was examined for sugar, albumin and microscopic examination.

3. **Stool Test:**

   Stool examination was done by direct method as well as concentration method.

   For control study 25 patient were selected, who were not suffering from phlyctenular keratoconjunctivitis but other ophthalmic problem. They were done for stool test in the same manner as done in case of phlyctenular keratoconjunctivitis.
Radiological examination:

Radiological examination was done, X-ray chest P.A. view to find out the pulmonary tuberculosis, inactive or active primary lesion or primary complex.

Tuberculin Test (Mantoux Test):

In mantoux test 1.T.U. of PPD. RT 23 with tween 80 as stabilizer was used for test purpose. This was obtained from B.C.G. vaccine laboratory Madras, India. Storage was done in refrigerator at 2°C - 4°C c. The flexor (volar) surface of left forearm was cleaned with rectified spirit. The clean skin was then held taut by squeezing and pressing upon the flexor surface of the forearm. A 1 ml. syringe graduated upto 0.01 ml. well fitted with a number 26 gauge short bivalled needle was used. 0.1 ml. of tuberculin was taken in the syringe and intradermal injection was given in the superficial layer of skin while the syringe was held almost parallel to the plane of the arm. Successful intradermal injection was considered by the raising up of small pale, wheel like elevation resembling the mosquito bite.

Reading:

Reading was recorded after 72 hours of injection. The forearm was slightly flexed and the induration at the site of testing was determined by inspection from a side
view against the light, as well as by direct light. The indurated skin was palpated by the gentle stroking to confirm the findings of inspection with the forefinger. The longest transverse diameter of induration recorded in millimeter. Any tissue surrounding the induration was not taken into consideration. However, any other abnormality such as vesiculation, ulceration and necrosis was also recorded, if present.

**Interpretation:**

This was done as follows:

- Induration \( \geq 10 \text{ mm} \text{ or more} \) - Positive
- Induration \( 5 - 9 \text{ mm} \) - Doubtful
- Induration \( \leq 5 \text{ mm} \) - Negative

The doubtful cases were retested with double strength and then interpretation was done.

The conditions in which the tuberculin test is suppressed due to temporary immune deficiency inspite of active tuberculosis e.g. malnutrition, recent viral infection (e.g. measles, chicken pox and mumps) recent vaccination with a viral vaccine (e.g. measles, drugs like corticosteroid and ACTH and high continuous fever were kept in view and transected by examination of children and careful history taken from patients.
To record the cases, working preforms were prepared which will be attached in index.
Age and Sex Incidence

Age group

- Male
- Female
PHOTOGRAPH SHOWING PHLYCTENULAR KERATOCONJUNCTIVITIS AT LIMBUS.
PHOTOGRAPH SHOWING MANTOUX TEST
POSITIVE REACTION.