Introduction

Phlyctenular keratoconjunctivitis is a nodular affliction characterized by the formation of a small, circumscribed lesion at the corneal limbus and now accepted as a morphologic expression of delayed hypersensitivity to diverse antigens. The condition is one of several corneal disorders that arise as an expression of altered immune mechanisms [4].

Case Report

A 2.5 years old male child presented to the eye OPD at Dr. RPGMC Tanda with a history of watering and redness from his left eye since 3-4 days. There was no H/O any diminution of vision, pain and purulent discharge from the eye. There was no history of tuberculosis, diabetes, hypertension and other systemic complaints in the child. But, history of ATT intake in the mother for a period of 6 months, at 1 year of age, was present. Monteux was 25x26 mm (Figure 3), ESR was 34mm in 1st hour, chest radiograph revealed perihilar shadows.

Results: Child was put on Antitubercular therapy in the form of rifampicin (10mg/kg/day), isoniazid (10mg/kg/day), pyrazinamide (25mg/kg/day) for 2 months (2HRZ) and isoniazid and rifampicin for another 4 months (4HR). Phlyctens resolved after a follow up of 1 month.

Conclusion: Phlyctenular keratoconjunctivitis should be evaluated for tuberculosis and with a positive test, should be referred for tuberculosis therapy.

Keywords: Phlyctenular; Conjunctivitis; Tuberculosis.
mm (Figure 3), ESR was 34mm in 1st hour, chest radiograph revealed perihilar shadows. Following all these findings, child was put on Antitubercular therapy in the form of rifampicin (10mg/kg/day), isoniazid (10mg/kg/day), pyrazinamide (25mg/kg/day) for 2 months (2HRZ) and isoniazid and rifampicin for another 4 months (4HR). Phlyctens resolved after a follow up of 1 month and conjunctival inflammation subsided leaving residual scarring at the limbus (Figure 4 and 5).

Discussion

Phlyctenular keratoconjunctivitis has been associated in the past with poor, undernourished, sickly children, with tuberculosis strongly implicated. Duke-Elder described the pitiable position of these children: “During the day the child hides away in a dark corner, burying his face in his hands; and during the night he curls up under the blankets” [5]. Phlyctenular keratoconjunctivitis has a worldwide distribution. It is found most commonly during the first and second decades of life in children living in crowded, impoverished quarters. All observers report a higher incidence (60% to 70% of reported cases) in girls than in boys [6, 7]. Sorsby reported that phlyctenular keratoconjunctivitis occurs more often in spring and summer than in late autumn or winter [7].

Although the precise mechanism by which phlyctenules are produced has not been determined, it is assumed from clinical evidence that the patient has been sensitized to the offending antigen in the past. In patients with tuberculosis, this sensitization presumably occurred as part of a bacteremia from an early infection in the lungs or lymph glands. For nontuberculous phlyctenular keratoconjunctivitis caused, for example, by Staphylococcus, the antigen probably comes from the pathogenic staphylococci that inhabit the lid margins of all people from time to time. The attack of phlyctenular keratoconjunctivitis may be precipitated by the presentation of the antigen to the sensitized ocular tissue, either by the bloodstream in the event of a recrudescence of a focus of infection elsewhere or by an exogenous inoculation of bacteria into the conjunctival sac from the lid margin. A phlyctenule may occur on the conjunctiva or on the cornea (Figure 6). The different locations give different symptoms and signs, and they have a different prognosis for vision.

Differential Diagnoses for Corneal nodule and irritation

- Staphylococcal marginal keratitis with phlyctenule
- Microbial keratitis
- Inflamed pseudopterygium
- Salzmann’s nodule
- Corneal foreign body

Figure 1. Phlycten with surrounding conjunctival injection at 1’0 clock position.

Figure 2. Phlycten with surrounding conjunctival injection at 6’0 clock position.

Figure 3. Induration with scarring following monteux test.
Conclusion

The patient with phlyctenular keratoconjunctivitis should be evaluated for tuberculosis. An intermediate-strength tuberculin test should establish the state of the tubercular reaction. Children and young adults younger than 20 years of age with a positive test, as well as any adult with a recently converted test result, should be referred for tuberculosis therapy. If the patient with a positive tuberculin test and phlyctenulosis is a child, a thorough investigation of the family for tuberculosis should be made.

References