



Phlyctenular Keratoconjunctivitis and Tuberculosis

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Phlyctenular keratoconjunctivitis (PKC) is a type IV cell mediated hypersensitivity reaction to endogenous microbial proteins. It is relatively more common in the paediatric age group in association with pulmonary and lymph node tuberculosis.¹ Many antigens like staphylococcal products, worm infestation, fungi, viruses, and parasites but the main antigen responsible for PKC was tuberculo-protein.²⁻⁶ We report a case of PKC in a patient who was Mantoux test positive but no other clinical features of tuberculosis.

Case Report

A six year old female presented with photophobia with increased lacrimation in the left eye for 1 month. She did not have any constitutional symptoms. Ophthalmologic examination revealed marked circumcorneal congestion and a single greyish white nodular lesion with a leash of blood vessels extending to the limbus in the left eye (figure 1).



Figure 1. Greyish white nodular lesion along upper limbic region in left eye representing phlyctenular kerato conjunctivitis

There was marked blepharospasm, photophobia and excessive lacrimation. Visual acuity was 6/6 and 6/6 in both eyes. Hemogram, liver and kidney function tests were within normal limits. Mantoux test (1 PPD) was 19 mm after 48 hours. Stool examination revealed no ova or cyst. Bacterial culture from lid margin and conjunctiva were sterile. Fine needle aspiration cytology (FNAC) from the lymph node showed epithelioid granuloma and acid fast bacilli, on Ziehl-Neelsen staining. The culture for Mycobacterium

tuberculosis was negative on BACTEC culture medium. A diagnosis of phlyctenular keratoconjunctivitis was made and started on short course anti tubercular therapy. Topical steroid and antibiotic eye drops were prescribed. There was complete resolution of eye lesions with residual corneal micro opacities.

Discussion

Phlyctenular keratoconjunctivitis is a nonspecific allergic cell mediated response in the cornea and/or conjunctiva, to a variety of antigens. PKC is mostly presented as unilateral disorder of conjunctiva. Associated ocular condition in PKC is blepharitis. PKC is a nodular affliction characterized by the formation of a small circumscribed lesions at the corneal limbus.⁷ Conjunctival phlyctens are usually transient and asymptomatic but corneal lesions present with lacrimation, photophobia and blepharospasm and may leave residual opacities leading to permanent vision impairment.⁸

Tubercular protein is thought as main inciting antigen, however, many other antigens were described in literature.²⁻⁶ PKC has a strong female preponderance as described in literature, as is our case.⁶ PKC may be a presenting feature in a patient without any systemic tuberculosis symptoms.⁶ PKC lesions were observed to be more severe and recurrent in patients with tuberculosis. The most common underlying tubercular focus was found to be the lungs followed by tubercular lymphadenopathy and rarely with cutaneous and spinal tuberculosis.⁸ Topical corticosteroids are considered as the best option for PKC, but topical cyclosporin A 2% has also been advocated as an effective treatment for children with PKC associated with severe corneal inflammation.^{3,9} Use of local antibiotics helps in preventing recurrences. PKC resolves easily with combination of topical steroid and antibiotic therapy, as occurred in our case.

We suggest a routine ophthalmological evaluation in all patients with tuberculosis, so as early diagnosis and timely institution of local treatment

of PKC. This will subsequently ameliorate the unwanted burden of ocular morbidity.

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