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Sir,

An interesting case of ligneous conjunctivitis

Ligneous conjunctivitis is a rare, idiopathic pseudomembranous conjunctivitis characterised by 'woody' tarsal lesions sometimes concurrent with corneal or mucosal involvement. Onset is usually in childhood with a chronic relapsing course. Different treatment modalities are available with variable outcome in terms of success and response. We present a case of ligneous conjunctivitis which seems to have resolved spontaneously.

Case report

A 20-year-old Asian man presented with sore eyes and painful ulceration of the lower lips. The onset was fairly sudden with no specific trigger. He also reported that his asthma had recently recurred. Ocular examination at presentation revealed firm pseudomembranous lesions bilaterally on the upper and lower tarsal conjunctiva with no corneal or other ocular involvement. He also had lower lip ulcerations with a clear buccal cavity and oropharynx (Fig. 1). There was no genital involvement.

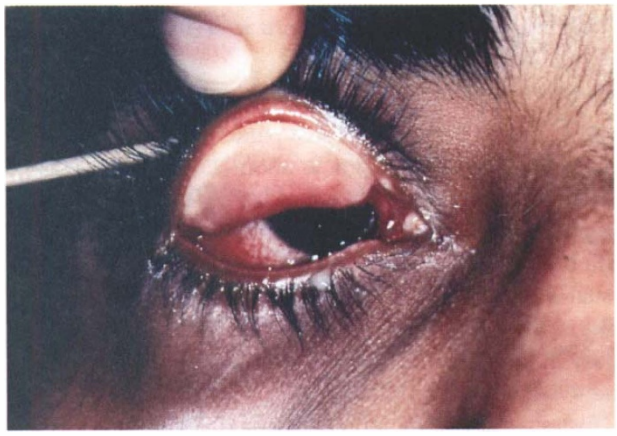
Attempts to remove the lesions resulted in breakage and bleeding. He had been given chloramphenicol ointment and co-amoxiclav 375 mg t.d.s. by his general practitioner prior to presentation for up to a week with no effect.

He had no past ocular history, but in his past medical history he had childhood asthma and ear problems, having had bilateral otitis media and a right-sided glue ear where a polypoidal tympanic lesion was excised. The histological appearance of this polyp was of acutely inflamed, oedematous inflammatory granulation tissue on a background of chronically inflamed infiltrate. These problems were present between the ages of 8 and 10 years and he had had no problems since that time.

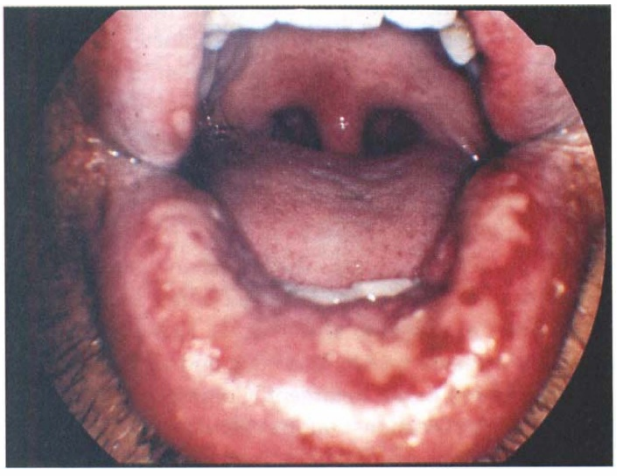
A conjunctival biopsy taken at the slit-lamp showed pseudomembranous pathology with a mainly inflammatory exudate of fibrin, acute inflammatory cells and enmeshed conjunctival epithelial cells. Occasional calcified bodies resembling psammoma bodies were present. Bacterial stains and cultures, viral cultures and chlamydial immunoassay were all negative. Blood tests, including his white cell count and plasminogen level/plasminogen activity assay, were normal.

A diagnosis of ligneous/pseudomembranous conjunctivitis was made based on the clinical and histological appearance. His planned management was for surgical excision of the pseudomembrane. This was to be followed by topical heparin (5000 units/ml) and preservative-free prednisolone 1% for up to a week and then tapered, to prevent reformation of the pseudomembrane.

In this case, before planned surgery was done (13 days following initial presentation), the lesions had almost fully resolved (Fig. 2). To date, he has not had a further relapse and the tarsal conjunctiva has healed with minimal residual scarring.

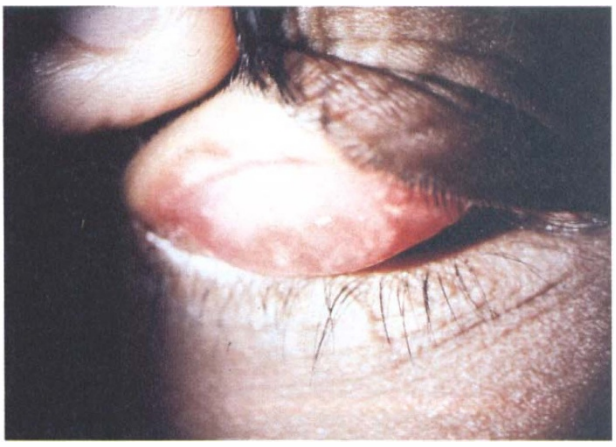


(a)

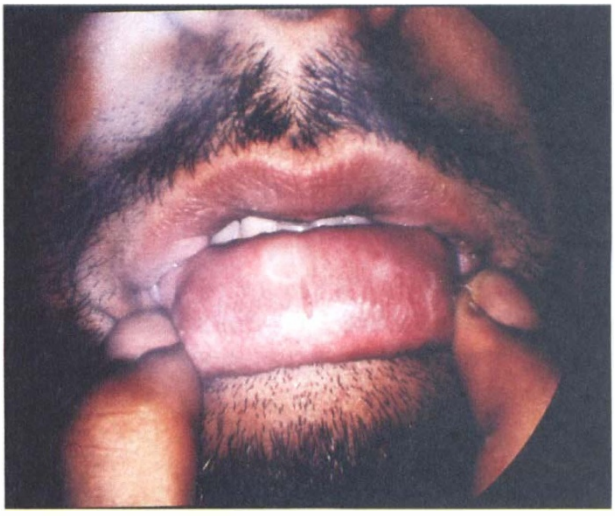


(b)

Fig. 1. *Photographs showing (a) the pseudomembranous lesion in the upper tarsal plate and (b) the lower lip ulcerations.*



(a)



(b)

Fig. 2. *Two weeks later, the ocular (a) and oral (b) lesions had vastly improved.*

Comment

Ligneous conjunctivitis is a rare, idiopathic pseudomembranous or membranous inflammatory condition. It is slightly commoner in females, usually starts in childhood and exhibits a chronic relapsing course. Spontaneous remission is uncommon and is usually seen only after recurrences.[1] An autosomal recessive inheritance has been reported but no aetiological agents as yet identified.[2] Linkage with other exudative mucosal lesions suggests an abnormal individual response to injury, noxious or inflammatory stimuli.[3,4] Reports include 2 cases with concurrent otitis media[5] and 3 with severe obstructive airways.[6] More recently, low plasminogen levels/activity were linked to ligneous conjunctivitis,[7,8] and this blood test is recommended in patients with this disease. Investigations to rule out an infective element (e.g. culture, virology) are important before making the diagnosis.

Treatment of ligneous conjunctivitis is usually reported from tertiary referral units with incomplete documentation of primary therapy. In the past, treatment was empirical and inconsistently effective. Newer regimes are based on specific targeting of the histological characteristics of the lesion.[9–11] De Cock *et al.*[11] report a series of 17 cases of which 13 were successfully treated with excision and half-hourly to 1-hourly heparin (1000/5000 IU/ml) in combination with topical steroids (1% prednisolone or 0.1% dexamethasone). Alpha-chymotrypsin (2500 or 5000 IU) was used successfully in 13 patients as well.[11] Cyclosporin[10] has also been tried and, in patients with plasminogen deficiency, intravaneous plasminogen can be therapeutic although the long-term effect is not known.[8] Our patient exhibited unusual features of an adult onset with fairly rapid resolution, which appears to have been spontaneous. His airway obstruction and tympanic polyp showed histology similar to a case of ligneous conjunctivitis reported by Marcus *et al.*[5] and support the diagnosis of ligneous conjunctivitis.

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