CASE REPORT

Lepromatous leprosy with necrotic erythema nodosum leprosum complicated with adherent leucoma

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Summary Adherent leucoma presents as white plaque on the sclera. It usually occurs following trauma to the eye and attachment of a portion of the iris to the cicatrisised portion of the cornea forming a whitish plaque. We report a case of lepromatous leprosy with necrotic erythema nodosum leprosum presenting with bilateral adherent leucoma of eyes as a complication.

Keywords: Adherent leucoma, Lepromatous leprosy, Necrotic ENL

Introduction

Leprosy is a chronic disease that frequently involves eyes. The eye involvement in leprosy account up to 5.65% of patients per year in a large study. The ocular complications are mostly secondary to lepra reaction and involvement of the eye by the lepra bacilli itself. The commonly reported ocular lesions in leprosy are lagophthalmos, corneal opacity, uveitis, cataract, reduced visual acuity and iris atrophy. However, the occurrence of adherent leucoma in leprosy has not been described in the existing literature.

Case Study

A 34 year old male presented with painful nodules, bullae and ulcers over his extremities and trunk for 10 days (Figure 1).

Fourteen months previously he had been diagnosed with lepromatous leprosy and took WHO MDT irregularly for 2 months and stopped the medication. However, the total duration
of the disease was 4 years. Over the last 6 months he had been getting painful evanescent nodules coming in crops associated with fever, but these were subsiding within a week. In the current episode he developed multiple painful nodules and bullae over his trunk and extremities which subsequently ulcerated within 2 to 3 days associated with fever, myalgia and redness of the eyes. A general examination revealed moderate pallor and bilateral inguinal tender lymphadenopathy. On dermatological examination there were multiple nodules, diffuse infiltration over his face and ears (Figure 1A). In addition the patient experienced tender erythematous nodules, bullae and ulcers over the extremities, trunk, buttocks and fingers associated with swelling of digits (Figure 1B, 1C & 1D). The ulcers were tender on palpation. There was loss of sensation on the bilateral hand and feet along with hypoesthesia over his forearm, arm and thighs, with atrophy of the small muscles of the hand with positive Froment’s sign. Enlargement of peripheral nerves couldn’t be elicited clinically. Systemic examinations were unremarkable except for his eyes which had corneal opacity and decreased visual acuity (Figure 2C).
A slit lamp examination of his cornea revealed the attachment of his iris to the cornea in bilateral eyes (Figure 2A & 2B). A slit skin smear for AFB was 6+ with bacilli in globi and histopathology from the ulcers showed florid vasculitis in the dermis and a larger collection of foamy macrophages around the adenexal structure extending to the subcutis. Fite’s stain showed bacilli in the globi.

Based on the above findings, the patient was diagnosed as case of lepromatous leprosy with necrotic ENL with adherent leucoma of bilateral eyes. He was treated with WHO MDT MB adult regimen and oral prednisolone 1 mg/kg body weight. After 2 weeks the ulcers had healed. Currently the patient is on oral prednisolone on a tapering dose along with WHO MDT MB(A).

Discussion

Leprosy involves the eyes either by direct invasion or by affecting the nerves supplying various parts of the eye. The occurrence of different leprosy-related eye complications in LL
hansen’s and Type II lepra reaction is about 44%, which includes ocular muscle weakness, lagophthalmos, ectropion, trichiasis, entropion, blocked nasolacrimal ducts, pterygium, impaired corneal sensation, corneal opacity, corneal nerve beading, punctate keratitis, iris atrophy, blindness, episcleitis, scleritis, iridocyclitis, iris atrophy and decreased visual acuity, corneal ulcer and cataract.

Adherent leucoma is a condition, in which a portion the iris is attached to the cicatrisised portion of the cornea forming a white plaque on the sclera. The adherent leucoma usually occurs as a consequence of damage to the lens, iris and diaphragm of the eye following trauma. In the present case the patient had no prior history of trauma to the eye. He had adherent leucoma of bilateral eyes, the duration of which was in correlation with the duration of his leprosy. Lepromatous leprosy can cause beaded corneal nerves due to granuloma and thereby lead to corneal nerve damage. Also Type 2 lepra reaction may induce inflammation on the corneal nerve. In the current case the patient presented with a severe Type 2 reaction in the form of necrosis of most ENL lesions indicating severe grade vasculitis. Vasculitic process due to repeated ENL episodes might have progressively involved the corneal vasculature leading to ischaemia and necrosis thereby leading to corneal ulceration and scar. Also loss of corneal sensation due to the involvement of the corneal nerve by reaction and disease per se leading to repeated microtrauma of the eye could have aggravated the damage to the cornea. Simultaneously frequent iritis during reaction might have induced damage to the iris and later, with due course of time, attachment of the iris to the corneal scar.

We couldn’t find any literature regarding adherent leucoma of eye in leprosy or with Type 2 lepra reaction.

References