Discoid lupus erythematosus of eyelids – Diagnostic and therapeutic challenges

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Abstract:

Discoid lupus erythematosus (DLE) is the most common form of chronic cutaneous lupus erythematosus commonly seen in photoexposed regions. Eyelid involvement in DLE is relatively rare. We present three cases of DLE with eyelid involvement. It closely mimics many clinical conditions; hence, diagnosis is often late. When left untreated, it can lead to many complications. The aim of this case series is to emphasize that ophthalmologists and dermatologists are aware of the various presentations of DLE in eyelids to prevent any misdiagnosis.

Keywords:

Blepharitis, discoid lupus erythematosus, eyelid

Introduction

DLE is the most common form of chronic cutaneous lupus erythematosus. In most of the cases, it is limited to scalp and face. However ocular involvement in DLE is not common.[1] We report three cases of DLE involving the eyelids.

Case Reports

Case 1

A 33-year-old male, a driver by occupation, presented with a 2-year history of reddish lesions over eyelids and forehead. He had mild itching and burning sensation. Cutaneous examination revealed three small well-defined erythematous plaques over the left eye inferior eyelid, medial to inner canthus, and left lateral forehead [Figure 1]. He was treated with topical corticosteroids for eczema by an outside practitioner. Biopsy from the forehead lesion revealed epidermal atrophy, follicular plugging, liquefactive degeneration of basal cells, and perivascular and periadnexal lymphocytic infiltration in the dermis. Direct immunofluorescence revealed linear IgM deposition at the dermoepidermal junction. A diagnosis of discoid lupus erythematosus (DLE) was made and treated with sunscreens and oral hydroxychloroquine (400 mg/day) for 6 months.

Case 2

A 30-year-old female, a farmer by occupation, presented with a 18-month history of painful, erythematous, scaly plaque with crusting, and hyperpigmentation over the lateral aspect of the right lower eyelid and lower lip [Figure 2]. Eyelashes of the lower lid were lost. She had photosensitivity and burning sensation. A biopsy specimen from the lower lip revealed findings consistent with DLE. The immunoserological examination revealed a positive antinuclear antibody. She was treated with sunscreens, topical corticosteroids, and oral hydroxychloroquine.

Case 3

A 46-year-old farmer presented with dark-colored lesion associated with a burning sensation for 2 years. It was progressive in nature. Cutaneous examination revealed hyperpigmented plaque with madarosis over her left lower eyelid. She also had a similar hyperpigmented plaque with central atrophy and scarring over her nose and above the upper lip [Figure 3]. There was no mucosal involvement. Histopathology and

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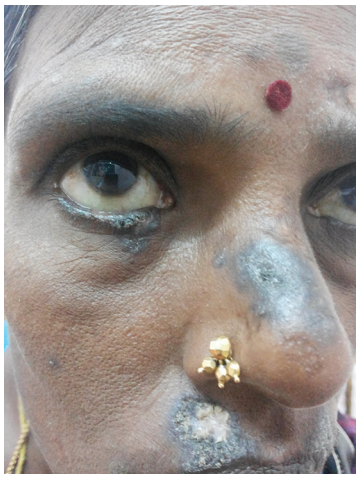

Figure 1: A single hyperpigmented plaque with madarosis over the left lower eyelid and hyperpigmented plaque with central atrophy and scarring over her nose and above the upper lip

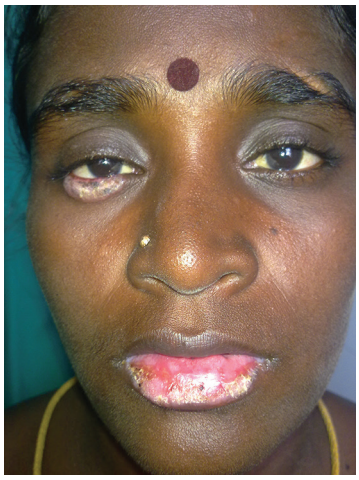

Figure 2: Well-defined erythematous, scaly plaque with crusting and hyperpigmentation over the lateral aspect of the right lower eyelid and lower lip

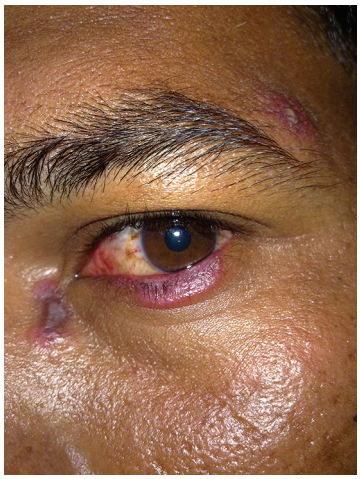

Figure 3: Three well-defined erythematous plaques over left eye inferior eyelid, medial to inner canthus, and left lateral forehead

immunofluorescence findings were consistent with DLE. She was advised regarding photoprotection and started on topical corticosteroids oral hydroxychloroquine.

Discussion

DLE is a chronic, benign autoimmune condition clinically characterized by well-defined erythematous or hyperkeratotic plaques with central atrophy, scaling, follicular plugging, and dermal scarring.[1,2] DLE commonly affects sun-exposed areas such as the scalp, face, and extensor aspect of the arms.[1,3] In face, the lesions are commonly seen over the forehead, malar regions, ears, nose, and vermilion border of the lips.[1,4] However, eyelids are involved only in 5%–6% of the patients.[3] The most frequent involvement is lateral third of the inferior eyelid.[5]

Trauma and sunlight exposure exacerbates the DLE of eyelids.[6] DLE lesions are usually asymptomatic, however, in few can present with photosensitivity, itching, pain, or swelling.[3,7] The DLE of the eyelids manifests as blepharitis, periorbital swelling, eyelid edema, thickening of eyelids, whitish papules over eyelids, dyspigmentation, loss of eyelashes, and meibomitis. The most common presentation of eyelid DLE is blepharitis and features favoring it are enlisted in Table 1.[1,4,6] It can lead to complications such as symblepharon trichiasis, entropion, ectropion, permanent scarring, visual dysfunction, conjunctivitis, stromal keratitis, panniculitis, epiphora, squamous cell carcinoma, cosmetic disfigurement, and psychological impairment.[7,8]

The subtle clinical presentation of the eyelid DLE makes the early diagnosis challenging and difficult.[4] The average duration to diagnose DLE from the onset of symptoms ranges from 2 to 3 years.[1] To confirm the diagnosis, full-thickness eyelid biopsy should be done and sent for histopathology and direct immunofluorescence staining. However, surgical trauma aggravating the DLE, cosmetic disfigurement, and recurrent wound dehiscence are its complications.[2,5,9] Dermoscopy is a noninvasive tool, whose findings correlate well with histopathology and disease duration can be used.[7]

The differential diagnosis of eyelid DLE includes seborrheic blepharitis, chronic staphylococcal blepharitis, rosacea, contact dermatitis, eczema, psoriasis, lichen planus, and sarcoidosis.[1,2] The management of DLE of eyelid begins with strict photoprotection using sunglass and sunscreens. The mainstay of therapy is oral hydroxychloroquine (200–400 mg/day).[2] For isolated eyelid involvement, topical corticosteroids, intralesional corticosteroids, and tacrolimus are the treatment options.[6] Extreme precaution should be taken while using topical steroids near eyelids as it can lead to glaucoma and intralesional corticosteroids can cause atrophy of eyelids.[10] When lesions are resistant to treatment or hydroxychloroquine cannot be given, immunosuppressives such as dapsone, azathioprine, methotrexate, cyclophosphamide, and thalidomide can be considered.[6]

Table 1: Features suggesting blepharitis associated with discoid lupus erythematosus[2,4]

More common in females
More common in 2nd-4th decade
Bilateral in nature
Involvement of lateral third of inferior lid
Long-standing history of blepharitis
Lesions are dry with no discharge
Associated DLE lesions in other photoexposed regions
No improvement with lid hygiene

DLE: Discoid lupus erythematosus

In conclusion, a high index of suspicion is needed to prevent misdiagnosis, as DLE of eyelids can easily masquerade many other conditions. When left untreated, it can lead to various complications. A long-term regular follow-up is necessary to monitor for systemic involvement.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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