

Case Report

Discoid lupus erythematosus leading to squamous cell carcinoma: a case report

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ABSTRACT

Discoid lupus erythematosus (DLE) is the most common chronic form of cutaneous lupus. It is characterised by persistent scaly, disk-like plaques on scalp, face and ears that may cause pigmentary changes, scarring and hair loss. Squamous cell carcinoma can rarely arise within a longstanding DLE plaque in the skin. It presents as an enlarging warty growth or ulcer. We report a case of squamous cell carcinoma which developed on lesion of discoid lupus erythematosus within a short period of time.

Keywords: Discoid lupus erythematosus, Squamous cell carcinoma, Carpet tack sign

INTRODUCTION

Discoid lupus erythematosus (DLE) is a benign disorder of the skin, clinically characterized by red scaly patches which heal with atrophy, scarring and pigmentary changes, and histopathologically characterized by vacuolar degeneration of basal cell layer of epidermis and patchy dermal lymphocytic infiltrate. Malignant transformation is rare complication of this condition.¹ We report a case of squamous cell carcinoma (SCC) developing over lesions of discoid lupus erythematosus within a shortest period of time.

CASE REPORT

A 50 year old female patient developed multiple erythematous to depigmented patches over cheeks, ears and lips since 8 months. These patches were present initially on the right cheek later gradually progressed to develop on the left cheek, lips and ears. The patch over the left ear ulcerated which progressed to form a fungating growth with non-foul smelling discharge since

1 month. History of photosensitivity and loss of appetite were present. There was no history of trauma, prior drug intake, and exposure to ionizing radiation, fever, weight loss, joint pain, fatigue, urinary disturbances, diabetes mellitus, oral ulcers, thrombophlebitis, chilblains, Raynaud's phenomenon or bleeding tendencies.

General examination was unremarkable. Systemic examination was normal. She was of Fitzpatrick skin type V. Dermatological examination revealed multiple, well defined, atrophic, erythematous to depigmented plaques with irregular hyperpigmented margins, covered with few areas of thick adherent scales, varying in size from 0.4-14 cm, distributed over the zygomatico-mandibular region of face, helix, and ear lobule (Figure 1). Carpet Tack sign is positive. A firm cauliflower-like growth measuring around 5×4 cm over left ear pinna (Figure 2). The mass was not friable, does not bleed on touch and fixed to the underlying tissue. Regional lymph nodes were not palpable. Oral cavity, nasal mucosa, eyes, nails, palms, soles, external genitalia, perianal region and joints were normal.

Routine hematological and biochemical investigation were normal. Chest radiography and ultrasound was normal. ANA was negative. Histopathological examination of the skin lesions from the right side of the face showed features suggestive of DLE. Histology of tumor shows intercellular bridges and nests of keratin pearls in the dermis, keratin pearls with areas of dysplasia and increased mitotic activity, confirming the diagnosis of SCC (Figure 3 and 4). Topical high potent steroids with oral hydroxychloroquine and physical sunscreens were given for management of DLE while wide excision with skin grafting was done for SCC.



Figure 1: DLE on both the cheek and ears (anterior and lateral view).



Figure 2: Tumor growth over the left ear lobe (lateral and posterior lateral view).

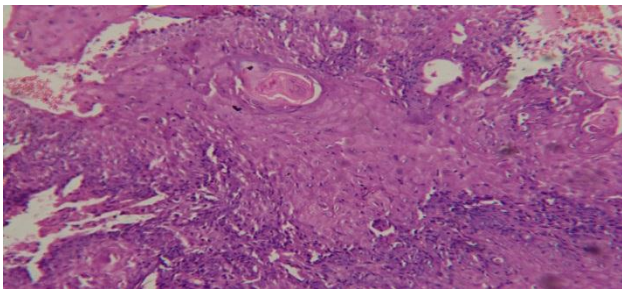


Figure 3: Photomicrogram of tumor from ear pinna showing the features of SCC (H&E; 10 X).

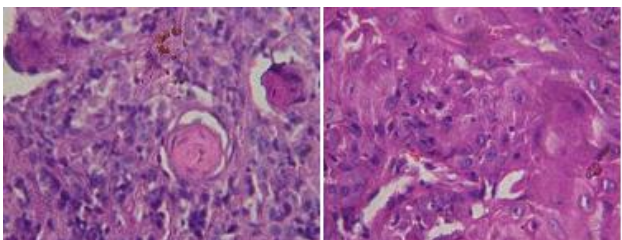


Figure 4: Photomicrogram of tumor from ear pinna showing the features of SCC (H&E; 100X).

DISCUSSION

DLE is a benign disorder, seldom associated with the development of SCC.² Reports of SCCs arising in the lesions of DLE are limited from India.

DLE is more common in females. Although SCC developing over DLE is more among males, our patient is a female. The mean age at presentation is 49.85 ± 12.06 years, which is in accordance with our patient.

According to the studies, disseminated type of DLE developing SCC is more common compared to localized type of DLE.³⁻⁵ But in contrast, Tao et al found more patients of localized DLE developing SCC which is similar to our case report.⁶

In a review by Sherman et al, the interval between development of DLE and SCC has varied from 4-20 years.⁷ However, there have been reports of shorter duration of up to four years between the onset of the disease and development of SCC, but our case developed SCC within few months of appearance of DLE lesions. This could be explained by the high risk factors in this case. Precipitating factors for SCC are age more than 50 years, female sex, and sun/ultraviolet ray exposure.

The most common site for SCC developing over DLE is sun exposed and heavily scarred areas of the face, scalp and forearm.^{5,8} The lips were the most commonly affected area in DLE related SCC. We are reporting a case of SCC over DLE presenting over external ear.

In our patient, SCC occurred in a DLE lesion within an interval of seven months. On the other hand, DLE was undiagnosed and untreated. Continuous sun exposure and her habit of picking the lesions have worsened the scarring. Thereby, these factors have contributed to early malignant transformation in the DLE lesion. High index of suspicion led us to biopsying the lesion and early carcinomatous changes were detected, thus preventing an aggressive malignancy. Thus, it is vital to look for malignant transformation in cases of DLE, especially in presence of risk factors like a photo exposed area and chronic scarring, even if the plaque is of recent onset.

CONCLUSION

Even though the incidence of malignant transformation of DLE lesions is rare, a high degree of suspicion for malignant changes is still necessary. These SCCs have been pragmatic to be more destructive than conventional SCCs. DLE patients with risk factors should be followed closely, and expert histopathologic evaluation of biopsy specimens from doubtful lesions is required to make an early, accurate diagnosis of SCC.

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