



SQUAMOUS CELL CARCINOMA OF THE EAR PINNA AND EXTERNAL AUDITORY CANAL OVER DISCOID LUPUS ERYTHEMATOSUS: A CASE REPORT

Otolaryngology

Dr Arvinder Singh Maan

Assistant Professor, Deptt of ENT, Govt Medical College, Amritsar

Dr Upasana Puri*

MS ENT, Govt Medical College, Amritsar *Corresponding Author

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.

Malignant is a rare complication of this condition. Squamous cell carcinoma can rarely arise within a longstanding DLE plaque in the skin. It presents as an enlarging warty growth or ulcer. Squamous cell carcinoma of the external auditory canal, middle ear and temporal bone is in itself a rare and unusual malignancy. We report a case of squamous cell carcinoma which developed on lesion of discoid lupus erythematosus of ear pinna and external auditory canal.

KEYWORDS

Squamous cell carcinoma, external auditory canal, middle ear, Discoid lupus erythematosus .

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 is a rare complication of this condition.¹ The ear canal, middle ear and temporal bone are rare sites of malignancies among which squamous cell carcinoma is the most commonly occurring cancer type². Hence a Squamous cell carcinoma of the ear pinna and EAC, developing over a DLE lesion is an extremely rare finding. We report one such case of squamous cell carcinoma (SCC) developing over lesions of discoid lupus erythematosus of the ear pinna and EAC.

CASE REPORT

A 60 year old female patient developed multiple erythematous to pigmented patches over bilateral ears, back and scalp since 4-5 years. The patch over the left ear started ulcerating which progressed to form a fungating growth with non-foul smelling discharge since 1 year. History of photosensitivity and loss of appetite was 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. Dermatological examination revealed multiple, well defined, atrophic, erythematous to pigmented plaques with irregular hyperpigmented margins, covered with few areas of thick adherent scales, varying in size from 0.4-14 cm, distributed over bilateral ear pinna, scalp and intrascapular region of the back (Figure 1,2). Carpet Tack sign is positive. A firm pinkish growth with overlying ulceration seen present in the cymba concha of left ear pinna and obstructing the external auditory canal (Figure 3). The mass was not friable, did 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 back showed features suggestive of DLE. Histology of tumor showed 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 4). HRCT temporal bone showed heterogeneously enhancing soft tissue density mass in left external auditory canal, starting from ear pinna extending upto tympanic membrane. No erosion of temporal bone or mastoid region seen. Topical high potent steroids with oral hydroxychloroquine and physical sunscreens were given for management of DLE while the patient underwent radiotherapy for SCC(as she was physically unfit for surgery).



Figure 1 : Dermoscope view of DLE lesion left ear cymba concha



Figure 2: Dermoscope view of DLE lesion over back



Figure 3: Ulcerative firm mass seen over DLE lesion obstructing the EAC left ear pinna

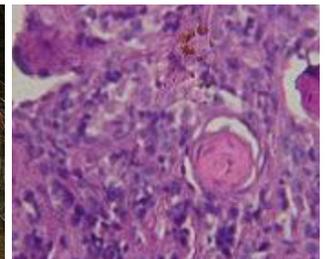


Figure 4: Histopathological features suggestive of SCC left ear pinna

DISCUSSION

DLE is a benign disorder, seldom associated with the development of SCC.³ 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(60 year old female).

Squamous cell carcinoma of the external auditory meatus and middle ear is an unusual and rare malignancy, which may explain the fact that there is no American Joint Committee on Cancer (AJCC) or Union for International Cancer Control (UICC) staging system for this type of neoplasm.

According to the studies, disseminated type of DLE developing SCC is more common compared to localized type of DLE.^{4,6} But in contrast, Tao et al found more patients of localized DLE developing SCC which is similar to our case report.⁷

In a review by Sherman et al, the interval between development of DLE and SCC has varied from 4-20 years.⁸ Our case developed SCC within 4-5 years 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.^{6,9} 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(ear pinna and EAC).

In our patient, SCC occurred in a DLE lesion within an interval of 4-5 years. 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 biopsy 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.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

REFERENCES

1. Winfield H, Jaworsky C. Connective tissue diseases. In: Elder DE, Elenitsas R, Johnson BL, Murphy GF, Xu X (eds). Lever's histopathology of the skin, 10th ed. Philadelphia: Lippincott Williams and Wilkins; 2009: 279-310.
2. Lobo D, Lorente JL, Suarez C. Squamous cell carcinoma of the external auditory canal. Skull Base. 2008;18:167-172.
3. Cassarino DS, Derienzo DP, Barr RJ. Cutaneous squamous cell carcinoma: A Comprehensive clinicopathologic classification. J Cutan Pathol. 2006;33:191-206.
4. Grover S, Murthy PS, Rajagopal R, Jalpota YP, Sudha KV. Discoid lupus erythematosus leading to squamous cell carcinoma. Med J Armed Forces India. 2007;63:184-5.
5. Dhingra M, Bhalla M, Thami GP, Mittal P. Metastasizing squamous cell carcinoma arising from chronic discoid lupus erythematosus plaque of recent onset. Indian J Dermatol Venereol Leprol. 2011;77:626.
6. Bhat MR, Hulmani M, Dandakeri S, Kambil SM, Gatti R. Disseminated discoid lupus erythematosus leading to squamous cell carcinoma. Indian J Dermatol. 2012;57:158-61.
7. Tao J, Zhang X, Guo N. Squamous cell Carcinoma complicating discoid lupus erythematosus in Chinese patients: Review of the literature. 1964-2010. J Am Dermatol. 2012;66: 695-6.
8. Sherman RN, Lee CW, Flynn KJ. Cutaneous squamous cell carcinoma in black patients with chronic discoid lupus erythematosus. Int J Dermatol. 1993;32:677-9.
9. Gupta U, Barman KD, Saify K. Squamous cell carcinoma complicating an untreated chronic discoid lupus erythematosus (CDLE) lesion in a black female. J Dermatol. 2005;32:1010-3.