

## SQUAMOUS CELL CARCINOMA IN HYPERTROPHIC LICHEN PLANUS: A RARE CASE REPORT

P. Guru Prasad<sup>1</sup>, S. Jahnvi<sup>2</sup>, G. M. V. Padmaja<sup>3</sup>, J. Rupa Ramani<sup>4</sup>

<sup>1</sup>Professor, Department of Dermatology, Venereology, Leprosy, Andhra Medical College.

<sup>2</sup>Junior Resident, Department of Dermatology, Venereology, Leprosy, Andhra Medical College.

<sup>3</sup>Junior Resident, Department of Dermatology, Venereology, Leprosy, Andhra Medical College.

<sup>4</sup>Junior Resident, Department of Dermatology, Venereology, Leprosy, Andhra Medical College.

### ABSTRACT

Lichen planus is an inflammatory, papulosquamous disorder affecting either or all of the skin, mucous membranes, hair and nail. An incidence of 0.38% has been reported from India. Several variants like hypertrophic, atrophic, annular, linear, vesiculobullous, ulcerative have been described. Neoplastic transformation of cutaneous lichen planus lesions occurs very rarely and should be kept in mind while treating non-healing longstanding lesions of cutaneous lichen planus. An average of 12 years may lapse between the diagnosis of hypertrophic lichen planus and squamous cell carcinoma. We present a case of 42-year-old female with a 12-year long history of biopsy proven hypertrophic lichen planus who presented with non-healing ulcer over anterior aspect of left leg. Excision biopsy revealed well differentiated squamous cell carcinoma. Patient was referred to surgery. This is reported to emphasize possibility of malignancy in hypertrophic cutaneous lichen planus, if it presents as long standing non-healing itchy lesion with patchy areas of depigmentation.

### KEYWORDS

Hypertrophic Lichen Planus, Squamous Cell Carcinoma.

**HOW TO CITE THIS ARTICLE:** Prasad PG, Jahnvi S, Padmaja GMV, et al. Squamous cell carcinoma in hypertrophic lichen planus: a rare case report. Journal of Evolution of Research in Dermatology and Venereology 2016; Vol. 2, Issue 1, Jan-June 2016; Page: 11-12.

### INTRODUCTION

Lichen planus is an inflammatory, papulosquamous disorder affecting either or all of the skin, mucous membranes, hair and nail. An incidence of 0.38% has been reported from India.<sup>[1]</sup> Several variants like hypertrophic, atrophic, annular, linear, vesiculobullous, ulcerative have been described. Hypertrophic lichen planus skin lesions are thick, raised and hyperpigmented distributed mainly over lower limbs. Neoplastic transformation in lichen planus has been described especially in oral form of disease, 0.3-3% of patients may develop squamous cell carcinoma.<sup>[2]</sup> Malignancy though uncommon with cutaneous lichen planus has been described in chronic hypertrophic lesions of lichen planus on legs.<sup>[3-5]</sup>

### CASE HISTORY

A 42-year-old female, housewife by occupation presented with a proliferative growth over anterior aspect of left leg since 3 months. The lesion initially started as hypertrophic lichen planus lesions which was diagnosed 12 years back. She had been treated for lichen planus lesions but no relief. There was a history of severe itching over the anterior aspect of left leg. The growth was large, 8x8 cm, friable, bleeding on touching with restricted mobility. Surrounding skin was thickened, lichenified with an area of depigmentation. No significant lymphadenopathy was present.

A biopsy from the surrounding thickened skin showed features of hypertrophic lichen planus. Second biopsy from fungating growth showed well differentiated squamous cell carcinoma with keratin pearl formation. Case was referred to surgery.

*Financial or Other, Competing Interest: None.*

*Submission 16-04-2016, Peer Review 23-05-2016,*

*Acceptance 28-05-2016, Published 17-06-2016.*

*Corresponding Author:*

*Dr. P. Guru Prasad,*

*Professor, Department of Dermatology,*

*Venereology, Leprosy,*

*Andhra Medical College.*

*E-mail: gppatnala@yahoo.co.in*



***Proliferative growth over the anterior aspect of left lower leg with surrounding depigmentation***



***Proliferative growth, friable with restricted mobility***

**DISCUSSION**

Lichen planus is an inflammatory, papulosquamous disorder affecting either or all of the skin, mucous membranes, hair and nail. An incidence of 0.38% has been reported from India.<sup>[1]</sup> Several variants like hypertrophic, atrophic, annular, linear, vesiculobullous, ulcerative have been described. Hypertrophic lichen planus skin lesions are thick, raised and hyperpigmented distributed mainly over lower limbs. Majority of malignant transformations occurs in lesions on the distal extremities. An average time of 12 years may lapse between the diagnosis of hypertrophic lichen planus and the onset of Squamous cell carcinoma.<sup>[5]</sup> Most cutaneous squamous cell carcinomas are associated with risk factors like arsenic exposure, radiation exposure, chronic tar application, ultraviolet rays, burn scars, varicose ulcers and human papilloma virus.<sup>[6,7]</sup> Here in our case the risk factors associated are chronic irritation in the form of itching and long standing nonhealing lesions of lichen planus. There has been evidence of chronic cutaneous inflammatory lesions triggering an oncogenic like overdrive of growth factors which stimulate the epithelial cells constantly to undergo neoplastic transformation. Hence it is essential to identify the risk factors of malignant degeneration associated with such cutaneous hypertrophic lichen planus lesions in daily practice so as to diagnose and treat them early in the disease process. Long standing, nonhealing, severely itchy hypertrophic lichen planus lesions of lower limbs<sup>[6-9]</sup> are seen prone to develop malignancy. Incidence of squamous cell carcinomas complicating cutaneous lichen planus is 0.4% and most of the reported cases are hypertrophic lichen planus<sup>[9]</sup> The presence of areas of depigmentation in the lichen planus lesions has also been noted to be associated with neoplastic transformation, as has been associated in this case too. Therefore, such lesions

should be subjected to regular histopathological examination for early detection of skin cancers.

**REFERENCES**

1. Bhattacharya M, Kaur I, Kumar B. Lichen planus: a clinical and epidemiological study. *J Dermatol* 2000;27(9): 576-82.
2. Castano E, Lopez-Rios F, Alvarez-Fernandez JG, et al. Verrucous carcinoma in association with hypertrophic lichen planus. *Clin Exp Dermatol* 1997;22(1):23-5.
3. Potter B, Fretzin D. Well differentiated epidermoid carcinoma arising in hypertrophic lichen planus. *Arch Dermatol* 1966;94(6):805-6.
4. Gawkrödger DJ, Stephenson TJ, Thomas SE. Squamous cell carcinoma complicating lichen planus: a clinic pathological study of three cases. *Dermatology* 1994;188(1):36-9.
5. Manz B, Paasch U, Stierherling M. Squamous cell carcinoma as complication of long standing hypertrophic lichen planus. *Int J Dermatol* 2005;44(9):773-4.
6. Shetty R, Lamba S, Gulur A, et al. Carcinoma in cutaneous lichen planus. *Our Dermatology Online* 2013;4(1):75-7.
7. Fratila S, Baba I, Puscasiu D, et al. Verrucous carcinoma arising from hypertrophic lichen planus. *Annals of the Romanian Society for cell biology* 2009;14(1):222-5.
8. Sigurgeirsson B, Lindelof B. Lichen planus and malignancy: an epidemiologic study of 2071 patients and a review of the literature. *Archives of Dermatology* 1991;127(11):1684-8.
9. Singh SK, Saikia UN, Ajith C, et al. Squamous cell carcinoma arising in hypertrophic lichen planus. *Journal of the European academy of Dermatology and Venereology* 2006;20(6):745-7.