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Squamous Cell Carcinoma Over Extra Genital Lichen Sclerosus: The First Report

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Abstract

Lichen sclerosus (LS) is an acquired, chronic, inflammatory skin disease. Invasive squamous cell carcinoma has been reported with long standing genital LS. Here we report an association of extra genital LS with squamous cell carcinoma in a young lady.

Extragenital LS showed decreased expression of the proliferation marker Ki-67 and p^{53} in comparison to genital LS. The p^{53} gene may be involved in the pathway of carcinogenesis.

Keywords: Lichen sclerosus; Carcinoma.

Sir,

Lichen sclerosus (LS) also known as Lichen sclerosus *et* atrophicus is an acquired, chronic, inflammatory skin disease that encompasses balanitis xeroticans obliterans of the penis, kraurosis vulvae and lichen sclerosus elsewhere on the body.[1,2] Women are affected 10 times as often as are men particularly around and after menopause but younger women or girls may also develop the disease. Invasive squamous cell carcinoma has been reported with long standing genital LS mostly over vulva and penis[2] however extra genital LS with malignant change has not yet been documented. Here we present such an interesting association of LS with squamous cell carcinoma on leg in a young lady.

A 28 years old female presented to our department with asymptomatic indurated whitish plaque with central atrophy, telangiectasia and follicular plugging surrounded by a lichenified border of size 15×10 cm in diameter over both of shins since childhood. On right shin there was a cauliflower like fungating growth (Figure 1) of size 5×7 cm with multiple bleeding points since last 2 years over the previous basic lesion. She was having bilateral tendered inguinal lymphadenopathy with hard constinency. Biopsy from the whitish atrophic plaque revealed hyperkeratosis, atrophic epidermis, sclerosis of dermis and lymphocytic activity in dermis and was thus suggestive of LSA.[3]

Figure 1: The cauliflower like growth over the skin lesion on right shin

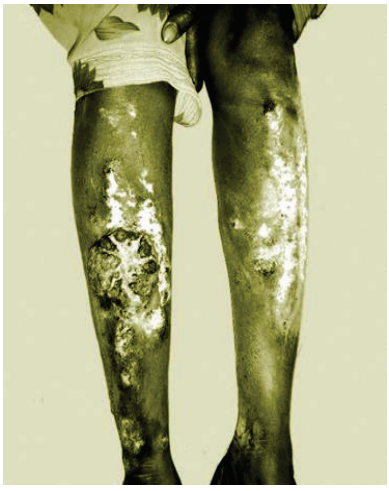

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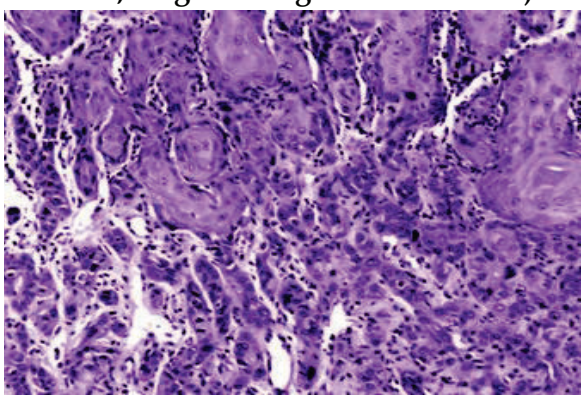
Figure 2: Histopathology showing Invasive nests of pleomorphic squamous epithelial cells with areas of squamous pearl formation and intercellular bridges with the presence of infiltrative growth, mitoses and cytologic atypia. (Haematoxylene and eosin; original magnification x 100)



Routine investigations were within normal range. X ray limbs showed soft tissue involvement. Histopathology from the fungating growth shows epidermal proliferation, shaggy base with infiltration, abnormal mitosis and cytologic atypia (Figure 2) confirming a diagnosis of poorly differentiated squamous cell carcinoma. The patient has undergone resection and radiotherapy for carcinoma, advised to apply clobetasol propionate and calcipotriol ointment with moisturizer over the white porcelain area and is presently under follow up.[4]

Lichen Sclerosus *et* Atrophicus (LSA) was first described in 1887 by Dr. Hallopeau.[1] It is an unusual chronic inflammatory mucocutaneous condition, commonly involving genitalia and rarely affecting extra genital sites.[1,2] Extragenital LS is most often found on chest, upper back, lower extremities and breasts. Invasive squamous cell carcinoma has been reported with long standing genital LSA mostly over vulva and penis.[2,5] However, here, we present such an interesting association of extra genital LSA with malignant change.

As a chronic scaring inflammatory dermatosis, lichen sclerotic lesions act as both "initiator and promoter" of carcinogenesis, explaining the coexistence. Extragenital LS showed decreased expression of the proliferation marker Ki-67 and p53 in comparison to genital LS, which may explain in part the lack of reported malignant transformation in the extragenital subtype.[5] However as keratinocytes of LS significantly express tumor suppressor gene p^{53} protein, the p^{53} gene may be involved early in this proposed pathway of carcinogenesis over extra genital site.

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