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CASE REPORT

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Squamous Cell Carcinoma on Discoid Lupus on Photo Protected Area

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Abstract

Introduction: Discoid lupus erythematosus is an autoimmune disease with mainly skin manifestations. Squamous cell carcinoma is a complication of discoid lupus on phototype VI and photoprotected area. We are reporting a case.

Observation: It was a 52-year-old man, driver for 30 years, phototype VI, received for a budding lesion of the back evolving for 1 year on discoid lupus erythematosus followed for 10 years. On examination, there was a budding swelling with a bleeding surface of 5cm in diameter resting on a discoid lupus lesion in the lumbar region with discoid plates along the spine. Histology showed moderately differentiated tumor cells with volume-increased nuclei; nucleolated. He benefited from a carcinological excision followed by chemotherapy and was then lost to follow-up.

Discussion: Squamous cell carcinomas are rare on discoid lupus erythematous. The factors incriminated would be chronic inflammatory processes, atrophy, depigmentation, UV rays, microtrauma by friction related to the patient's profession.

Conclusion: Squamous cell carcinoma on discoid lupus erythematous remains a rare cancer in photo protected areas.

Keywords: Discoid lupus; Squamous cell carcinoma; Photo protected area; Senegal

Introduction

Discoid Lupus Erythematous (DLE) is clinically characterized by atrophic red scaly erythematous plaques, scars, and pigmentary changes and histopathologically by vacuolar degeneration of the basal layer of the epidermis and uneven dermal lymphocytic infiltrate. It can be in exposed photo areas but also elsewhere on the body [1]. DLE degeneration to Squamous Cell Carcinoma (SC) is a rare complication in a photo protected area. We report a case.

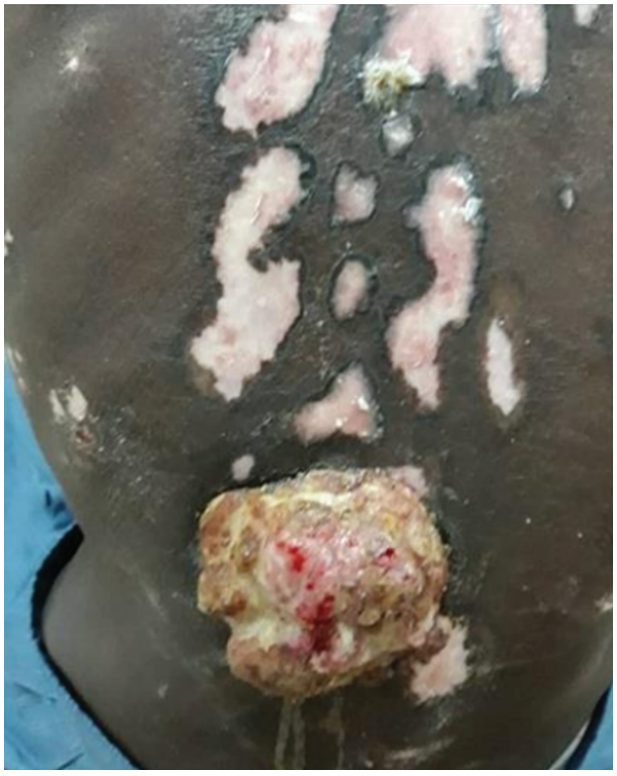
Observation

He was a 52-year-old man, a driver for 30 years, received for a budding lower back injury. The beginning would date back to a year marked by the appearance of a budding ulceration of the back. The onset of the disease was one year ago and was marked by the appearance of an ulceration on the back, about 2cm in diameter according to the patient, which appeared spontaneously. He consulted several structures where antibiotic-based treatments were prescribed with dressings and antiseptics without improvement. As the ulceration worsened, he was referred to dermatology.

In his medical history, he had been followed in a dermatology department for 10 years for a discoid lupus of the back evolving by relapses and remissions, treated with hydroxychoroquine, dermocorticoids. He is a non-smoker and non-alcoholic.

On general examination: general condition was good, mucous membranes were colored, and there was no edema of the lower limbs. Weight was 73kg, height: 1.75m (body mass index: 23.8), temperature: 37°C, blood pressure: 120/80mm Hg.

On dermatological examination, there was a budding swelling with a bleeding crusty surface of 5cm in diameter on its main axis by 4, 5cm, with a wide base, resting on a hypochromic atrophic plate; located in the lumbar region. In addition, there were squamous hypochromic plaques with a hyper-pigmented border located along the spine (Figure 1). Identical plates are found on the front of the legs. He had no mucosal involvement or lymphadenopathy. Examination of other devices was normal. Biological and biochemical examinations were normal. Histology showed carcinomatous lobules and flaps sometimes centered by keratin lobules, moderately differentiated tumor cells with enlarged nuclei; nucleoli and a fibro-inflammatory stroma (Figure 2). Bone X-ray of the spine noted a periosteal reaction of the bone. Immuno histochemistry had not been done due to lack of means. The thoraco-abdomino-pelvic computed tomography was not done due to lack of resources. He was referred to the cancer department where he benefited a carcinological excision with a 4cm margin and a histopathological study of the margins which was normal. The lymph node curage had brought back 7 lymph nodes free of metastasis.



Squamous cell carcinoma on discoid lupus on photo protected area.

Figure 1: Budding swelling of the lumbar region with discoid plaques along the spine.

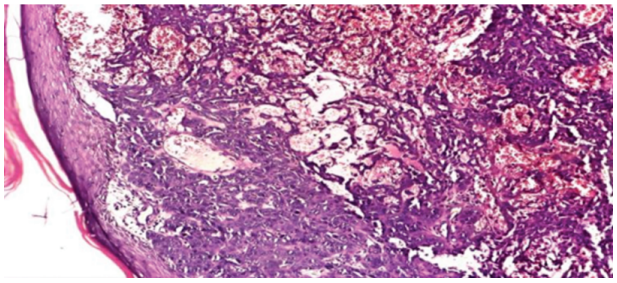


Figure 2: Differentiated squamous cell carcinoma of the skin infiltrating an edematous stroma: × 200 magnification, Hematoxylin eosin.

Discussion

Genetic factors and mutations are implicated in the pathogenesis of the DLE [1]. Triggers of skin inflammation, including UV radiation, stimulate the innate production of cytokines from keratinocytes and trigger cell death which can activate nucleic acid signalization pathways with a deposition of immune complexes. The production of cytokines and chemokine's promotes inflammatory infiltrates that damage tissues, perpetrate the inflammatory cycle, lead to chronic Tumor Grown Factor signaling β that promotes tissue damage and healing [2].

In our African context, the first causes of squamous cell carcinomas are dominated by burn scars, phagedenic ulcer and precancerous dermatoses. Of the eighty cases of squamous cell carcinomas, six occurred on an LEC [3]. The incidence of EC on LEC ranges from 3.3 to 3.4% depending on the studies [4,5]. The interval between the development of The LEC and the SC varies from 4 to 20 years [5,6], it is 10 years in our observation. The long delay in evolution could be due in our context to the inaccessible health facilities; the insufficiency of qualified personnel but also the wander in of patients related to the use of phytotherapy by populations which is quite common in our areas [7].

In most publications, lesions are localized to the exposed photo areas [8]. In a few rare series, they were located in protected photo areas [9,10]. The factors implicated are chronic inflammatory processes, atrophy, depigmentation, and damage resulting from UV rays [11,12]. In our case, in addition to the above factors, frictional microtrauma related to the patient's occupation may be the most plausible factor. Also, melanin is known for its contribution in the photo protection of phototype VI of skin cancers. Despite this protective effect of melanin, cases have been described in Africa and America, such as our case [3,13,14].

Conclusion

We reported a case of SC on DLE occurred on phototype VI, in a protected photo area. This article highlights the need for monitoring of DLE lesions regardless of their topography.

Conflict of Interest

The authors declare that they have no conflict of interest.

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