



Squamous cell carcinoma on plantar perforating ulcer in an old leprosy: Case report

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Abstract

Carcinomatous degeneration is a late complication of leprosy ulcers that are dominated by plantar perforating ulcer. We report the case of an aggressive squamous cell carcinoma on plantar perforating ulcer in an old leprosy woman, who unfortunately suffered an amputation due to the large size of the tumor and invasion of the underlying bone. This invasive gesture, in a patient who already suffers from the sequelae of leprosy, could be avoided by long-term monitoring and treatment of plantar perforating ulcer to avoid this complication.

Keywords: squamous cell carcinoma, plantar perforating ulcer, Leprosy, degeneration

Introduction

Carcinomatous degeneration is a late complication of leprosy ulcers that are dominated by plantar perforating ulcer is rare. 10 cases were reported in Morocco in 10 years [1]. We report one more case of an aggressive squamous cell carcinoma on PPU in an old leprosy.

Case report

A 62-year-old woman with an old leprosy declared healed; keeping a deformity on the hands and feet, with a "claw" appearance on the fingers and amyotrophy of inter-osseous, thenar eminence and hypo-thenar "Monkey hands" and a "hammer" aspect of the toes, neurologically it had a hypoesthesia in gloves, socks and shoes (figure 1,2), with recurrent plantar perforating ulcers. The patient presented two years before her consultation in our service a right ulcerous lesion of the plant which did not heal despite topical treatments and dressings, this ulceration gradually increased in size becoming bleeding on contact. The patient was transferred to us for the appearance of a large ulcerous-bleeding tumor very painful and nauseating at the right plantar level (figures 2, 3). There was no homolateral palpable inguinal lymphadenopathy or distance. The biopsy was in favor of infiltrating squamous cell carcinoma (figures 4, 5, 6), the X-ray of the limb revealing a bony lysis of the Calcaneum. The ultrasound of the lymph node drainage area did not show lymphadenopathy. A trans-tibial amputation was indicated in our patient. The patient did not have lymph node extension or distant metastasis after a 2-year follow-up.



(a)



(b)

Fig 1: (a) "claw" appearance on the fingers. (b) Monkey hand: amyotrophy of interosseous, thenar eminence and hypothenar.



Fig 2: “hammer” aspect of the toes



Fig 3: A large bleeding ulcerous-bleeding tumor very painful

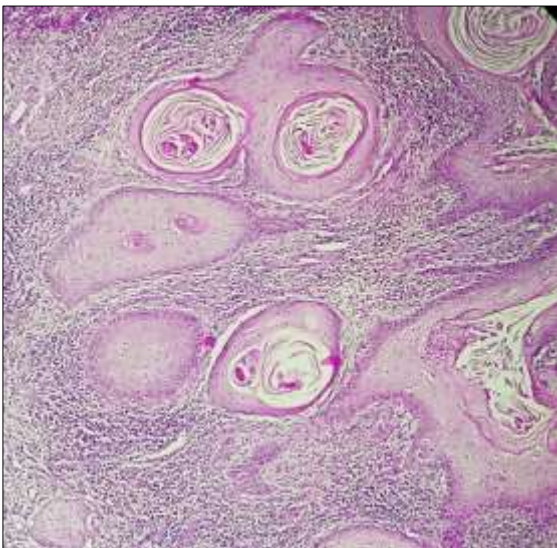


Fig 4: HESx200: Tumor proliferation arranged in masses centered by horny globes

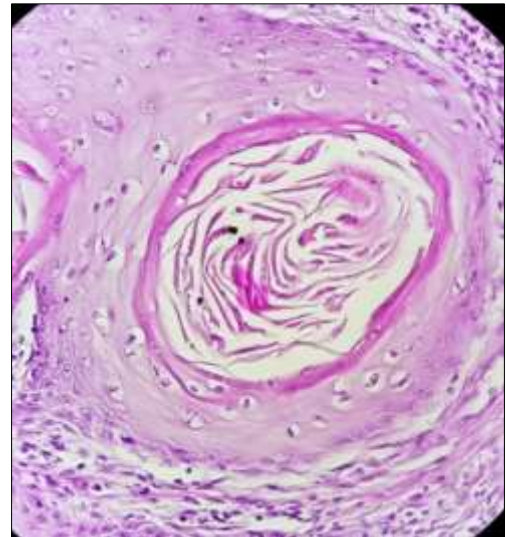


Fig 5: HESx400: massive mass of polygonal tumor cells

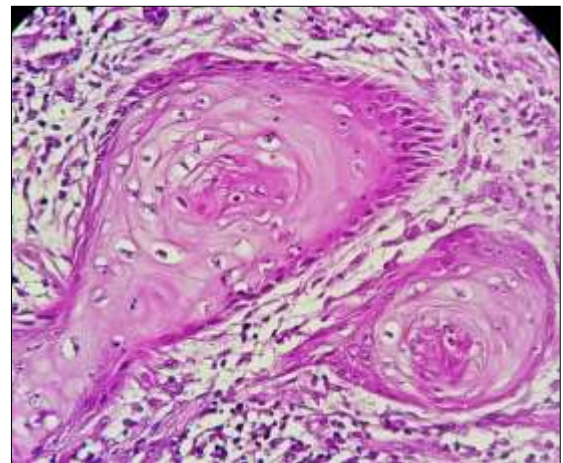


Fig 6: atypical cells, with large nuclei surrounded by abundant eosinophilic cytoplasm

Discussion

Squamous cell carcinoma is a malignant epithelial tumor, primary cutaneous expressing epidermoid differentiation, is the second skin cancer after basal cell carcinoma. It is often found on photo-exposed areas as well as on precancerous lesions. But it also occurs on pre-existing lesions including chronic leg ulcers, genodermatoses and some chronic inflammatory dermatosis [2]. The carcinomatous degeneration of chronic ulcers of leprosy origin is a well-known as late complication. Its incidence is estimated at 0.76 per 1,000 in Thailand [3]. In Morocco, Hali *et al* brought 10 cases over a period of 10 years [1]. B. Traore and all. 19 cases in twenty years have been reported in Mali [4]. In all these series, it was always old patients cured with infirmities [4]. The leprosy infirmities are due to the nerve damage which would be constant during the leprosy disease [5]. It achieves peripheral neuropathy [6, 7] which results in sensory, motor and trophic disorders that preferentially affect the hands and feet. In the feet, the main clinical manifestation is perforating plantar ulcers, the presence of which is secondary to plantar anesthesia. Its management, which requires landfiling and daily local long-term care [4]. The frequent involvement of the forefoot and heel

(ground support triangle) was obviously linked to this pathology^[4]. Histology is the key to diagnosis of squamous cell carcinoma on plantar perforating ulcer, and the histological image when it is a well-differentiated tumor is, according to some authors, a better prognostic criterion^[9].

A local extension assessment is indicated and locoregional if clinical suspicion of metastases on the lymphatic drainage area. A remote extension assessment is indicated if signs of calls^[8]. The treatment is based on surgery at first intension^[8]. Ganglion dissection is indicated in the presence of palpable lymphadenopathy^[8]. Radiotherapy in case of lesion, advanced inoperable primary lesions, tumor recurrence and in cases of lymph node involvement, cutaneous CSC at high risk if tumor excision is incomplete or in the presence of a peri-neural invasion and if Excision margins are positive in order to reduce the rate of recidivism^[8]. Chemotherapy, electrochemotherapy, targeted therapies and immunotherapies may be indicated for metastatic or advanced squamous cell carcinoma^[8,10].

Squamous cell carcinoma is a complication of chronic leprosy ulcers, especially on the perforating plantar ulcer. the carcinomatous degeneration of these ulcers can be suspected in the absence of long-term scarring despite a well-managed treatment, in front of the modification of the clinical aspect of the plantar ulcer which becomes budding, bleeding and painful should prompt us to perform a skin biopsy to confirm the degeneration before arriving at late stages, which can justify amputation as in the case of our patient. This invasive gesture is a handicap which adds to these patients who already suffer from the consequences of leprosy disease. We therefore emphasize the importance of the treatment of chronic ulcers in lepers and the long-term follow-up of these patients in order to detect and treat this invasive tumor early, and to avoid these serious consequences which could imply the functional prognosis of patients as well as the metastatic prognosis risk even if it is poor. Our patient, who has retained deformities of the extremities as well as hypoaesthesia secondary to her leprosy, with poorly followed plantar perforator, on whom she has developed a voluminous invasive tumor which has cost her foot, could demonstrate the importance of surveillance to avoid reaching this advanced stage.

Conclusion

We emphasize the importance of this observation because amputation could be avoided in case of early diagnosis of SCC on a perforating plantar disease complicating leprosy.

Conflict of interest

The authors have declared that no conflicts of interest exist.

Contribution of authors

All the authors contributed in writing this article.

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