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VERRUCOUS CARCINOMA OF THE PALM – A RARE CASE REPORT

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Abstract
Verrucous carcinoma is an unusual subtype of squamous cell carcinoma that can arise in several locations throughout the body. Its prognosis after treatment is relatively good. A 73-year-old woman was diagnosed with verrucous carcinoma of her palm, treated with wide local excision and free anterolateral thigh flap. The tumor was eight years old and had resisted prior treatment. involvement of bone and lymph node metastasis. Correct diagnosis is important because verrucous carcinoma has different behaviour and treatment than the conventional squamous cell carcinoma. Amputation with or without surgical management is performed in case of disabling functional impairment or bone invasion. There is no use of electrodesiccation and radiation therapy. More studies are needed to find the best treatment for verrucous carcinoma.

INTRODUCTION

Verrucous carcinoma (VC) is a rare, indolent variant of squamous cell carcinoma (SCC) with a characteristic bland, wart-like surface appearance. It is linked with low-risk type Human Papilloma Virus types 6, 11, and high-

risk types 16, 18, [6] first described by Ackerman in 1948. The presence of p16INK4A can also add as a marker to support the diagnosis of VC along the spectrum of differentiation as in the high grade poorly differentiated type 4, 5 Initially reported as a low-grade, well-differentiated tumor of the oral cavity, the entity has since been identified at several other anatomic sites in the body and segregated into 4 distinct clinicopathologic types based on the site of the lesion. There are also four primary clinical forms of VC: VC (Ackerman tumor or oral florid papillomatosis), ano-genital VC (Buschke-Lowenstein tumor), palmoplantar VC (epithelioma cuniculatum) and VC in other cutaneous locales. We present a case of a verrucous carcinoma of the palm in an elderly woman, treated with wide local excision and covered with a free anterolateral thigh flap.

Case Report

A 60-year-old woman was referred to the department. of Plastic & Reconstructive Surgery, of a lesion on the right palm extending onto the middle finger for eight years. It started spontaneously and was a small swelling but later increased in size to what it is now. In just 2 years, it has actually grown rapidly. She has been experiencing nagging pain for 1 month and difficulty in activities of daily living. No history of pruritis no history of ulceration or bleeding. She had a history of topical native treatment with no improvement. Primary care physician who knows case of hypertensives since 4 years under treatment Examination reveals few hyperkeratotic papules and plaques which are fissured in- between lesions and spot bleeding over the base
which is indurated erythematous with peripheral dark rim 10 x 10cm over right palm and extending to middle finger. (Fig. 1) Clinically diagnosed to hallux, verrucous carcinoma, and planned for surgical management.

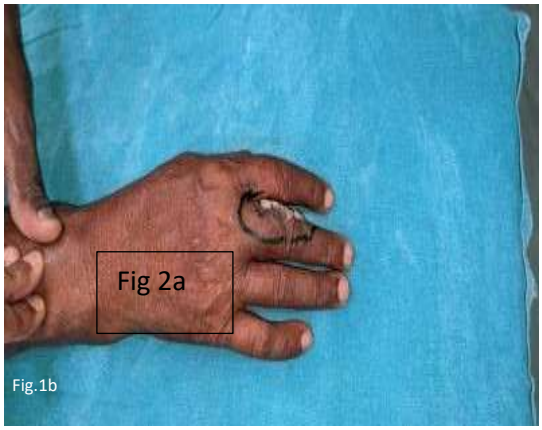

Fig. 1 – Clinical photo demonstrates verrucous carcinoma of the right palm (1a) with involvement of the middle finger (1b) and the 1st web space (1c)

Under general anaesthesia and tourniquet control, the neurovascular bundles were preserved and the surgical oncologist performed wide local excision of the lesion with 1cm margin. (Fig. 2a) The excised defect was 18 x 13cm that was covered with a free suprafascial anterolateral thigh flap. (Fig. - 2b) Post-operative course was uneventful. Histopathology showed as verrucous carcinoma with no tumor necrosis or lymphovascular invasion and all the margins was clear from the tumor. Suture removal was done after 2week and patient was discharged after 1week. She was advised to wear some compression garments and undergo further physiotherapy in order to regain hand functions. (Fig. 2c, 2d) She would need flap debulking surgery at some point.

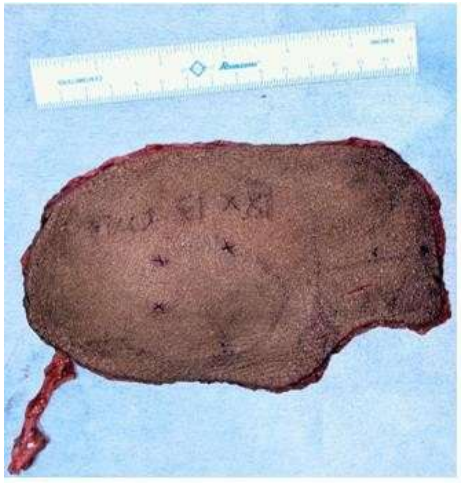

Fig 2b

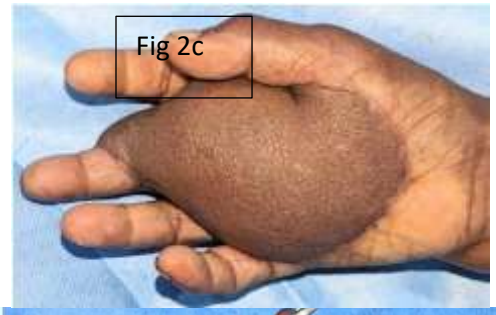

Fig 2c

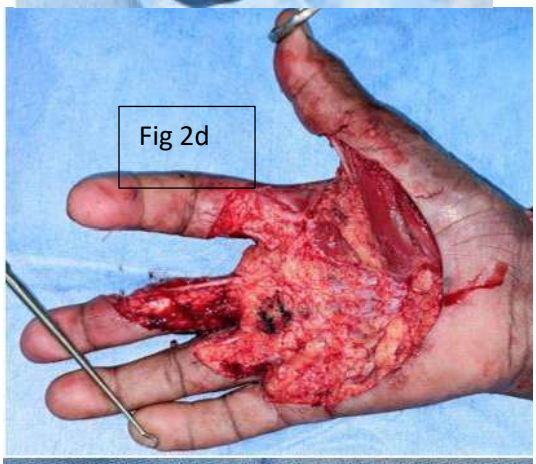

Fig 2d

FIG 2(a-d). 2.a- defect after wide local excision
2.b- anterolateral thigh flap harvesting
2.c- early postoperative period 2.d- late post operative period

DISCUSSION

Although the palmoplantar variant of VC typically occurs on the soles and palms of elderly Caucasian men, it is clinically defined by the infiltration of the toes, heels, dorsum of the foot, wrists, and forearms. They may initially appear like warts, but later evolve into large, exophytic, ulcerated masses with malodorous discharge. Though palmoplantar VC has only a tenuous association with low-risk HPV types, it is also linked with trauma, chronic irritation and other HPV types. And VC has been described on various body areas including the hands, fingers, buttocks, penis, knees, and mucous membranes (oral and nasal cavities, larynx, pharynx, and esophagus). Lesions on other sites are rare and present as slowly growing warty or cauliflower-like growths with few associations with HPV.

Still, all variants have many analogous histopathological features including an endo-exophytic growth pattern, presence of prominent granular layer, hyperkeratosis and parakeratosis, also acanthosis and papillomatosis. The epithelium is well-differentiated and stratified with broad, bulbous rete-like outgrowths into the dermis, often with dense inflammatory infiltrates and the presence of sinuses and keratin-filled cysts. These lesions are slow growing and specifically do not have the invasive characteristics of atypical or infiltrative cells. VC neoplasm does not penetrate but malignancy is from compression destruction, and excessive margins can infiltrate into nearby structures leading to destruction of the tissue, muscle, cartilage, or bone.

VC is classically described with local infiltration with painful evolution, increase in regular size, germination and invasion of the subcutaneous tissue. Approximately 10% of patients will have bone involvement and 4–5% will have lymph node metastasis. In other instances, however, hybrid tumors have been identified with features of a VC plus a focal population of invasive cells with features of classical SCC. Precise diagnosis is pivotal, as SCC has a greater incidence of lymph node metastasis requiring alternate therapeutic plans. Immunohistochemical stains that have been used to distinguish VC from SCC include bcl-2, Ki-67, and p53, the basal proliferating cells in VC stain only with these markers, while SCC shows staining of the entire epidermis.

The cornerstone of treatment is surgery, with complete surgical excision being the ideal approach. It is locally excised but has a high recurrencence risk. Amputation of the limb may be indicated when there is a large tumor or appropriate in the context of a favorable patient profile, sufficient functional and aesthetic results can be achieved. Amputation should be considered based not only on bony invasion but also when tumor size disrupts normal function. Other therapies attempted without success include electrodesiccation, curettage, high-dose vitamin C, topical fluorouracil, intra-arterial bleomycin, intralesional interferon, cryotherapy, and laser therapy. Because of its low prevalence lymphadenectomy should also be reserved for suspected lymph node involvement. This is not the way radiation therapy is typically used because of the risk for anaplastic transformation.

CONCLUSION

Cutaneous verrucous carcinoma is a rare variant of squamous cell carcinoma with an unusual variable that has a better outcome. The definitive treatment is wide local excision 1+2+3; however, there is evidence that radiotherapy is not effective 1. Only future randomized type of trials can elucidate what are the right indications for the specific therapeutical approach. The prognosis following treatment of patients with verrucous carcinomas is generally favorable. Overall, this case is unique due to the uncommon nature and a novel management utilizing a free anterolateral thigh flap which has not been previously reported in the literature to our knowledge.

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