

**Case report****Verrucous carcinoma of the foot - a series of 4 cases****Sumer Singh***Anatomical basis of clinical practicum, 40th ed. London: Elsevier; 2010: 1262-64.***ARTICLE INFO****Keywords:**

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ABSTRACT

Most of patients having soft tissue lesion on heel/foot referred to plastic surgeon because reconstructive options for heel/foot are difficult for general surgeons/orthopedicians. So as a plastic surgeon we should be aware of this rare but local tumor of foot, so that we can diagnose it early and manage properly. We present a case series of 4 patients of verrucous carcinoma of the foot. This is a rare, locally invasive, well differentiated, low-grade squamous cell carcinoma, with HPV as a possible causative agent. It follows a chronic course and mimics a variety of skin lesions, delaying diagnosis by up to 15 years. The definitive diagnosis is made histologically, and treatment by wide local excision is recommended. Our patients underwent wide local excision and reconstructed. Three patients had lesion on heel, were managed using reverse peroneal artery flap and fourth patient had lesion on forefoot, was managed using reverse medial planter artery flap. There were no postoperative complications. There was no functional impairment. Level of evidence - iv

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1. Introduction

Most of patients having soft tissue lesion on heel/foot referred to plastic surgeon because reconstructive options for heel/foot are difficult for general surgeons/orthopedicians. So as a plastic surgeon we should be aware of this rare but local tumor of foot, so that we can diagnose it early and manage properly.

Verrucous carcinoma is a rare, locally invasive, well differentiated, low-grade squamous cell carcinoma, with HPV as a possible causative agent. It has a variety of different names; each is distinguished by its differing location but represents the same pathological condition.¹ These terms include: epithelioma cuniculatum plantare, giant condylomata accuminata of the anorectal region (Buschke-Loewenstein tumour), verrucous carcinoma of the oropharynx, papilloma cutis carcinoids, and cutaneous squamous carcinoma.²⁻⁴ It follows a chronic course and mimics a variety of skin lesions, delaying diagnosis by up to 15 years. The definitive diagnosis is made histologically, and treatment by wide local excision is recommended. Most patients with verrucous carcinoma have a good prognosis. Local recurrence is not uncommon, but metastasis to distant parts of the body is also rare.

Verrucous carcinoma may occur in several locations in the head and neck, gingiva, buccal mucosa, hard palate, floor of the mouth, larynx, oesophagus, penis, vagina, scrotum. The oral cavity is the most common site of this tumor.

Verrucous carcinoma of the foot is very rare.

Material and method

All the cases in this series were chronic smoker males and in their 4th to 5th decade of age. 3 patients had lesion on the heel (figure 1,4, 5) and one over forefoot (figure 6). The patients were given history of 2 – 5 years slowly growing lesion with discharging some whitish material. The lesion was increased gradually in size, was painless and slowly growing, non-tender, with irregular surface and everted margins. There is no inguinal lymphadenopathy. Wedge biopsy sent on opd basis and report was suggestive of verrucous carcinoma. Morphologic picture showed a biopsy occupied by an ulcerated, polypoid mass characterized superficially by hyper and parakeratosis, and acanthosis; deeply the tumor invaded with broad strands that often contained keratin-filled cysts in center. Mitotic activity was low and confined in basal layer. The fibrous stroma surrounding the lesion revealed ectatic vessels, moderate inflammatory infiltrate with neutrophils and focal necrosis (figure 8).

The definitive histopathological diagnosis was verrucous carcinoma, that is, low-grade squamous cell carcinoma. The patient was posted for wide local excision (1 cm margin) (figure 6) and flap surgery. Pedicled Reverse peroneal artery flap (figure 2) with skin grafting for the donor site was done for the patient with lesion on heel. All margins and base were free from tumor in final excisional biopsy report. After 7-10 days patient discharged and followed after 18 days for final inset. Patient was discharged after 3 days. On 3 month and 6 month follow up flap was healthy (figure 3). Patient satisfaction and functional outcome was good. The patient with lesion on forefoot was treated using reverse medial planter flap and skin graft (figure 7) and discharged after 7 days. A

* Corresponding Author : **Sumer Singh**

Figure 1. verrucous carcinoma of heel



Figure 4. 2nd case of verrucous carcinoma heel



Figure 2. reverse peroneal artery flap with peroneal artery



Figure 5. 3rd case of verrucous carcinoma heel

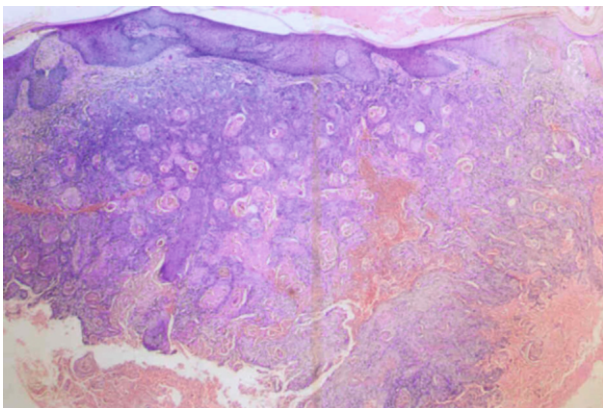


Figure 3. final result with RPAF



Figure 6. 4th case of verrucous carcinoma , lesion on forefoot. Wide local excision with 1 cm margin



Figure 7. reverse medial planter flap with skin graft**Figure 8. microscopic view of verrucous carcinoma foot**

Conclusion

Most of patients having soft tissue lesion on heel/foot referred to plastic surgeon because reconstructive options for heel/foot are difficult for general surgeons/orthopedicians. So as a plastic surgeon we should be aware of this rare but local tumor of foot, so that we can diagnose it early and manage properly.

We present a case series of 4 patients of verrucous carcinoma of the foot. This is a rare, locally invasive, well differentiated, low-grade squamous cell carcinoma, with human papilloma virus (HPV) as a possible causative agent. It follows a chronic course and mimics a variety of skin lesions, delaying diagnosis up to 15 years. The definitive diagnosis is made histologically, and treatment by wide local excision is recommended. Our patients underwent wide local excision and reconstructed. Three patients had lesion on heel, were managed using reverse peroneal artery flap and fourth patient had lesion on forefoot, was managed using reverse medial planter artery flap. There were no postoperative complications. There was no functional impairment. (Summary: table 1)

Conflict of interest statement-

Author dr sumer singh, dr yogesh bhatt, dr sanjay vaghani, dr piyush doshi declares that they have no funding and no conflict of interest.

Ethical standard-

The manuscript does not contain clinical studies or patient data.

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