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An Unusual Case of Verrucous Carcinoma of the Little Toe.

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Abstract: *Verrucous carcinoma is an extremely well-differentiated variant of squamous cell carcinoma. Local invasion is the rule and extension to bone is frequent but nodal metastases are exceptional.[1]We present a unique case of a 75 year old male with extensor aspect of little toe involvement leading to management with wide local excision.*

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I. Introduction

Verrucous carcinoma first described by Ackerman[2] in 1948 is an uncommon, low grade, well differentiated variant of squamous cell carcinoma (SCC) with a warty appearance. It is slow growing, bulky, exophytic, and low-grade tumor with a broad base and with minimal dysplasia. Although it has a negligible incidence of metastasis, it is known for its aggressive local invasion, compressing underlying soft tissue but lacking destructiveness.[3]

Verrucous carcinoma has been described in three main sites: the oropharynx, genitalia and feet.[4]Epitheliomacuniculatum refers to verrucous carcinoma found almost exclusively in the foot and was first described in 1954 by Professor Ian Aird.[5]

II. Case Report

75 yr. old Male patient presented with history of painful ulceroproliferative growth over the left little toe since 2 yrs.On examination, ulceroproliferative growth measuring 2 x 1 cm was noted over the extensor aspect of the left little toe approx. 1cm from the tip of the toe, involving the interdigital fold of the left fourth toe. [Fig.1] Excision biopsy of the left little toe lesion was performed and histopathology revealed verrucous carcinoma with bony destruction of the involved phalynx. Resected margins were involved by the tumor.

MRI of the Left foot revealed altered signal intensity lesion in the head and body of the 5th metatarsal and adjacent interossiemuscles with cortical erosions. [Fig.2] Patient underwent wide local excision(WLE) involving 4th and 5th metatarsal bone with 4th left phalynx. [Fig.3] Histopathology revealed verrucous carcinoma of the left foot and resected margins are free from tumor. [Fig 4.]

Patient underwent split skin graft to cover the defect after 2 weeks of WLE [Fig 5.] Patient is able to ambulate and is on regular follow-up.

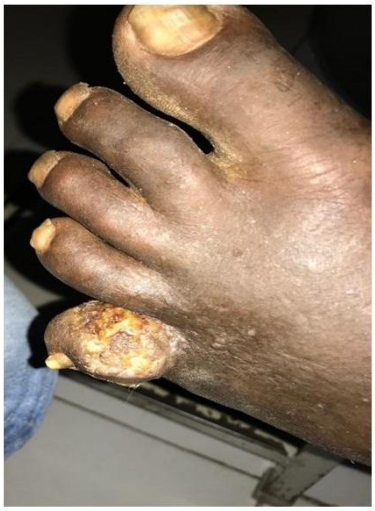

Fig. 1

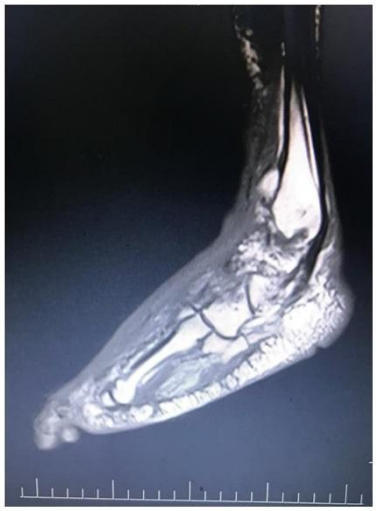

Fig. 2

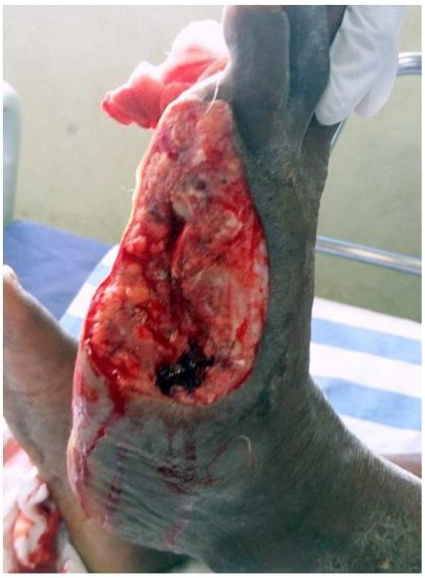

Fig. 3

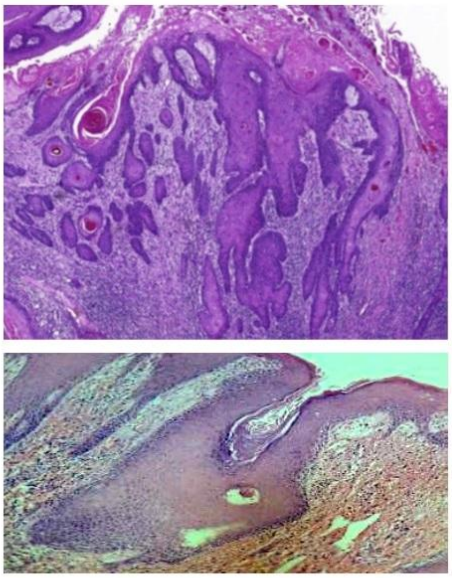

Fig. 4

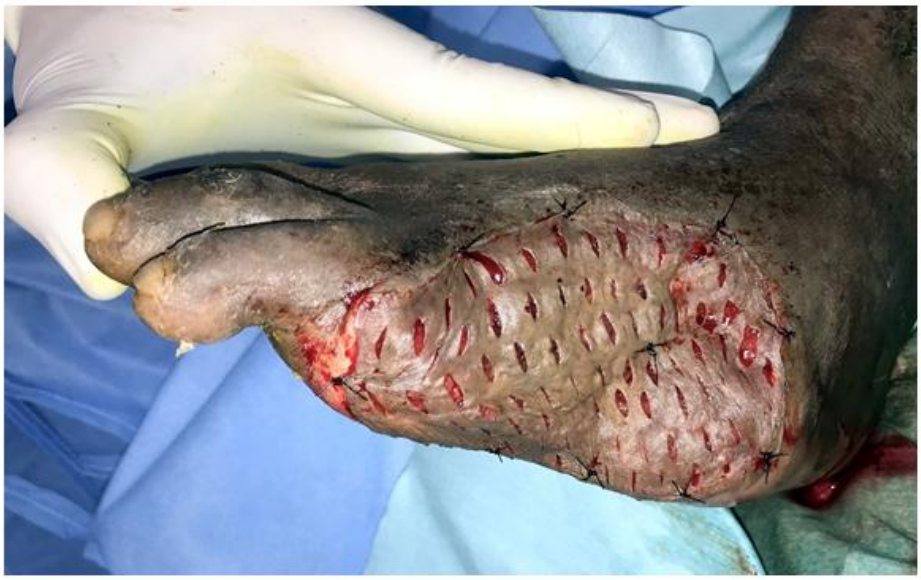

Fig. 5

III. Discussion

Verrucous carcinoma usually appears as a raised, white cauliflower like mass. It usually occurs in the oral cavity and genital region. When lesion occurs on the foot, it mostly occurs in the forefoot.[6]As the tumor grows, it invades locally and involves the plantar fascia or the destruction of the metatarsal bones.[7] It is less commonly reported on the palm, scalp, face, extremities and back.

Specimens exhibit both endophytic and exophytic growth patterns.[8]Histopathology shows squamous cells with papillary projections. The stoma is usually non- reactive. Keratin pearls are uncommon in verrucous carcinoma compared to squamous cell carcinoma.[9] Sometimes it may show infiltration of inflammatory cells.

Verrucous carcinoma typically occurs in men in their 4^{th} to 6^{th} decades, although it has been seen in patients as young as 16 yrs.[10]It follows a chronic course, evolving from a discrete focal lesion to a large fungating deeply penetrating mass. The median time for diagnosis is 8 to 15 yrs. due to slow growth and confusing early stage appearances.[11] Differential diagnosis include viral warts, pseudocarcinomatous hyperplasia and deep mycosis.[12]

For soft tissue invasion of the foot, MRI is the best investigative modality.[13] Morbidity and mortality from verrucous carcinoma arises from local invasion and infiltration into the adjacent bones. The tumor rarely metastasizes, with regional lymphnodes being the only reported site of metastasis.[14]

The recommended treatment is wide local excision rather than marginal excision as verrucous carcinoma often causes a structural distortion of adjacent tissues, and the margins are not always apparent intra-operatively.[15] Other therapeutic modalities include topical chemotherapy, electrocautery, cryotherapy, and Laser therapy but all have high recurrence rates. Radiation therapy is contraindicated because it has been reported to cause the tumor to become more aggressive.[16]

IV. Conclusion

Verrucous carcinoma(VC) is an unusual type of squamous cell carcinoma that presents as an elevated, warty tumor that is histologically without anaplasia, yet that may be erosive and locally invasive. The trigger of VC is unclear, but all arise de-novo in the weight bearing areas of foot. VC has histological similarities to plantar warts and HPV may be the causative agent.[17]

Although being a rare diagnosis, awareness should be raised of VC due to enigmatic early stage appearance which leads to delay in diagnosis and poor prognosis. Treatment of VC is complete surgical wide local excision. The long term prognosis for definitely treated VC is good with cure rates of upto 99%. Nonetheless, patients should be reviewed annually as recurrence remain a possibility.

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