ORIGINAL RESEARCH PAPER
Volume-6 | Issue-10 | October-2017 | ISSN No 2277 - 8179 | IF : 4.176 | IC Value : 78.46
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

EPITHELIOMA CUNICULATUM- A RARE CASE REPORT

Dermatology

Swetha.P Senior Resident, Dermatology, Venereology & Leprosy, Sree Balaji Medical College & Hospital

Kovi.Sneha Junior Residents, Dermatology, Venereology & Leprosy, Sree Balaji Medical College & Hospital

Divya G Junior Residents, Dermatology, Venereology & Leprosy, Sree Balaji Medical College & Hospital

***Jayakar Thomas** HOD & Professor, Dermatology, Venereology & Leprosy, Sree Balaji Medical College & Hospital * Corresponding Author

ABSTRACT

Epithelioma cuniculatum is a uncommon, locally invasive, slow growing type of verrucous carcinoma with a cauliflower like appearance. We report a 22-year-old female patient having a verrucous lesion over the right heel since the last 5 years and histopathological examination revealed epithelioma cuniculatum.

KEYWORDS

Epithelioma cuniculatum, verrucous carcinoma

Introduction:
Epithelioma cuniculatum is a rare type of verrucous carcinoma characterized by slow growing tumors with a cauliflower like appearance. It was first described in 1954 by Professor Ian Aird. It's commonly seen on the foot and is unilateral, although it can be seen on the other sites. It's treated by wide local excision and skin graft or flap as it causes a structural distortion to the adjacent tissues.

Case report:
A 22-year-old female came to skin OPD with an ulcer over the right heel for the past 5 years. It was associated with pain and discharge. History of fever present for the past 5 days. No history of loss of sensation over the foot. It started as a small ulcer following a trivial trauma (shoe bite) which progressed to a size of 2 x 2cm and initially was managed conservatively with daily dressing and foot offloading. Later patient underwent a medial plantar artery flap cover for right heel trophic ulcer. Patient is a case of dysraphism of the sacral region (tethered cord) since birth.

Dermatological examination revealed an ulcer of size 3 x 4cm present over right heel with ill-defined borders showing cauliflower like projections (figure-1). Temperature was elevated over the affected area. Previous surgical scars noted over the right foot. Palms, scalp, oral mucosa, and nails were normal.

All routine investigations done were within normal limit. Biopsy from the lesion revealed massive hyperkeratosis with acanthosis, no inflammatory infiltrate or keratinocytes. No atypical cells seen. All these findings are suggestive of verrucous carcinoma of sole. (Figure-2,3,4)

Discussion:
Verrucous carcinoma is a low grade and slow growing form of squamous cell carcinoma. Epithelioma cuniculatum is a variant of verrucous carcinoma localized to the plantar surface. The word epithelioma means "tumor of the epithelium" and cuniculate refers to crypt-like spaces seen on histology that resemble rabbit burrows. There are various etiological factors like trauma, chronic irritation, thorn prick and HPV infection which have been reported. The occurrence of this tumour has also been described in trophic ulcers caused by leprosy and diabetes mellitus. (1)(2)

Verrucous carcinoma has also known to be associated with HPV - Types 2 and 16 as etiological factors in two cases.

The incidence of verrucous carcinoma is more in males and is common in the fifth to sixth decade of life. It commonly occurs over on the anterior weight-bearing part of the sole. There may be delay in diagnosis due to the resemblance of the lesion to a wart or corn, which grows progressively despite topical treatment. (3) Metastasis is rare and therefore mortality is also very rare.

For the diagnosis of the tumour a large deep biopsy is needed. The upper portions usually resemble verruca vulgaris and shows hyperkeratosis, parakeratosis, and acanthosis. Keratinocytes appear well differentiated and possess a small nucleus. There are large bulbous downward proliferations that compresses the collagen bundles.

Differential diagnosis includes reactive epidermal hyperplasia, giant seborrheic keratosis, adnexal tumours, giant keratoacanthoma, verruca vulgaris eccrine poroma, hyperkeratotic basal cell epithelioma, verruciform xanthoma and cutaneous squamous cell carcinoma. (4)

Viral warts do not show endophytic zones and usually have keratohyalin granules. They do not grow over many years and have a tendency towards spontaneous regression. Keratoacanthoma is usually not verrucous in appearance and has a rapid self-limiting course. (5) Microscopically it shows a large keratin-filled crater with upward and downward proliferation of epithelium from the crater. Individual cell keratinization and horn pearls may also be seen. Pseudo carcinomatous hyperplasia is a reactive process to a causative factor and rarely causes difficulty in differentiating from verrucous carcinoma. Differentiating these conditions becomes even more difficult if only superficial biopsies are taken. Multiple biopsies and a close clinical correlation are therefore required before a definite diagnosis is possible.

Treatment is excision of the tumour and skin grafting or flap. Mohs micrographic surgery is the first choice. Radiation therapy can be done in elderly patients and in patients who cannot tolerate surgery. Other treatments such as bleomycin, 5-fluorouracil, cisplatin, methotrexate, Co2 laser can be used. (6)(7)

CONCLUSION:
Verrucous carcinoma should be suspected if there is a long-standing lesion on the sole not responding to topical medications, cryotherapy or cautery. It can be misdiagnosed as plantar warts or tuberculosis verrucosa cutis. A deep biopsy is needed to confirm the diagnosis of verrucous carcinoma. Verrucous carcinoma can possibly turn in to SCC in-situ so regular follow up is required.

Legends to figures:

Figure 1: Clinical picture shows ulcer of size 3 x 4cm present over right heel with ill-defined borders showing cauliflower like projections

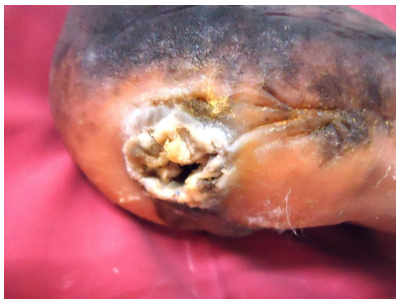


Figure 2: Histopathological picture showing hyperkeratosis and acanthosis

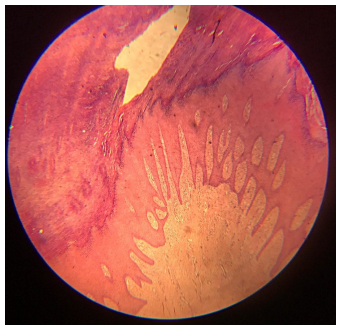


Figure 3: Histopathological picture showing regular acanthosis into the dermis

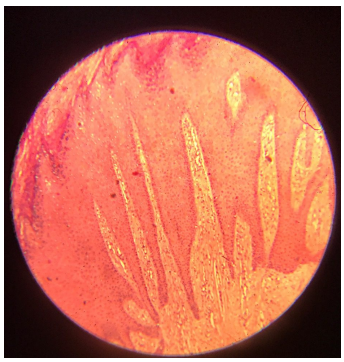
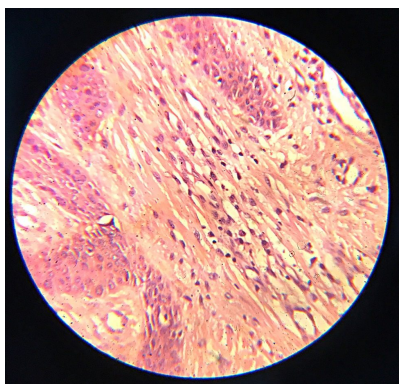


Figure 4: Histopathological picture showing atypical cells



References:

1. Kao GF, Graham JH, Helwig EB. Carcinoma cuniculalum (verrucous carcinoma of the skin): A clinicopathologic study of 46 cases with ultrastructural observations. Cancer 1982;40:2395-403.
2. Mckee PH, Wilkinson JD, Black MM, Whimster JW. Carcinoma (epithelioma) cuniculatum: Clinicopathological study of nineteen cases and review of literature. Histopathology 1981;5:425-36.
3. Koch BB, Trask DK, Hoffman HT, Karnell LH, Robinson RA, Zhen W, *et al*. National survey of head and neck verrucous carcinoma: Patterns of presentation, care, and outcome. Cancer 2001;92:110-20.
4. D'Aniello C, Grimaldi L, Meschino N, Brandi C, Andreassi A, Bosi B. Verrucous 'cuniculatum' carcinoma of the sacral region. Br J Dermatol 2000;143:459-60.
5. Schwartz RA. Verrucous carcinoma of the skin and mucosa. Journal of the American Academy of Dermatology. 1995 Jan 1;32(1):1-21.
6. Nikkels AF, Thirion L, Quatresooz P, et al. Photodynamic therapy for cutaneous verrucous carcinoma. J Am Acad Dermatol 2007;57:516
7. Ferlito A, Rinaldo A, Mannara GM. Is primary radiotherapy an appropriate option for the treatment of verrucous carcinoma of head and neck? J Laryngol Otol 1998;112:132.