

A Hidden Lake on a Mountain Basal Cell Carcinoma Arising within Verruca Vulgaris in an Uncommon Region

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Abstract

Verruca vulgaris or common warts are benign epidermal growths caused by the Human Papillomavirus (HPV) often found on hands and legs. These lesions are self-limiting varying in number and size and can undergo malignant transformation into SCC. Basal cell carcinoma, the most common type of skin malignancy originates from the basal layer of skin typically in sunlight-exposed areas. And is diagnosed by doing an Edge wedge biopsy and Immunohistochemistry (IHC) tests. Here we present a case report of Basal Cell Carcinoma within a lesion of Verruca vulgaris over the dorsal aspect of the forearm which is an extremely rare presentation.

Keywords: Basal Cell Carcinoma, Human Papilloma Virus, Squamous Cell Carcinoma, Verruca Vulgaris.

Introduction

Verruca vulgaris is a common wart. It is a benign skin lesion caused by Human Papilloma Virus [1, 11]. It can appear anywhere in the body. HPV 2, 3, 4, 7 and 10 are commonly associated with verrucous skin lesions. Common warts are usually self-limiting lesions and they vary in size [2] and number. HPV 1, 2 and 4 are primarily implicated with verruca vulgaris and HPV 6 and 11 are oncogenic viruses that usually cause genital warts [3, 17]. They have been reported to cause malignant transformation into SCC in immunocompromised patients with Verruca vulgaris [4, 8]. Since Verruca vulgaris is a communicable disease, it can spread to other parts of the body if left untreated [7]. It commonly affects the hands, feet and face. Basal cell carcinoma is the most common type of skin malignancy. These are low-grade tumours that originate from the basal layer of skin or mucocutaneous junction. They are found in areas directly exposed to sunlight. It is

mostly commonly seen in adults but can occur at any age.

Diagnosis is confirmed by doing an Edge wedge biopsy and Immunohistochemistry (IHC) tests.

Materials and Methods

We present a case of Basal Cell Carcinoma in Verruca vulgaris over the right forearm which was initially diagnosed as a Verruca vulgaris and turned out to be Basal Cell Carcinoma in Verruca vulgaris Histology. Here the clinical presentation and Surgical Management are studied.

Case Presentation

A 75-year-old male came with complaints of a painful lesion on the back of his right forearm. Upon examination, the lesion was found to consist of multiple hard, tender, warty-looking lesions with a cauliflower-like appearance and with a rough papillomatous surface. The lesion was of size 6x8cm over the dorsal and lateral aspect of his right forearm [Figure 1].



Figure 1. Pre-op Image Showing Verruca Vulgaris

An edge wedge biopsy of the lesion was performed, which revealed the growth to be Verruca vulgaris. Under the Axillary block, the patient underwent Wide local excision to completely remove the affected tissue. Excised

tissue was sent for frozen section, All the margins and deeper tissue were free of tumour. After confirming clear margins Split Skin Graft was done to cover the wound [Figure 2].



Figure 2. Post SSG Image

The excised tissue was sent for histopathological examination (HPE) [Figure 3], which revealed the presence of high-grade

basal cell carcinoma (BCC) within the verruca vulgaris lesion. They were limited to the epidermis which is the outermost layer of skin.



Figure 3. Excised Specimen of BCC in Verruca Vulgaris

To confirm the diagnosis Immunohistochemistry was done. Test for BerEP4 which was positive.

Discussion

Verruca vulgaris are benign skin lesions that can occur in any part of the body. It is caused by Human papillomavirus infection [18]. Treatment is based on the number, size, chronicity and immune status of the patient. The various available treatment options are surgical excision, cryotherapy, electrocautery, laser treatment and local application of topical agents [9, 13, 14]. These lesions are prone to recurrence. However, almost two-thirds of these warts resolve spontaneously within 2 years without any treatment.

For a solitary lesion that is smaller in size, a conservative approach is often effective, which helps to gradually reduce the wart. On the other hand, a larger chronic lesion is more resistant to conservative management and may require more aggressive interventions such as surgical excision. The size of the lesion typically ranges from 1 to 20 mm, with larger lesions often indicating a more chronic condition.

As verruca vulgaris lesions age their characteristic histopathologic features may diminish. The microscopic appearance of the lesion can change over time making it less

distinct and sometimes harder to diagnose accurately. Additionally, in long-standing lesions, HPV may not be detectable because the viral load decreases as the lesion becomes more chronic [6]. Hence HPV subtyping is generally not recommended in chronic lesions of verruca vulgaris.

Malignant transformation is rare in verruca vulgaris [5, 19, 20]. However common warts might progress to SCC in immunosuppressed patients who are infected with HIV or patients who have undergone organ transplantation. The mutagenic properties of HPV are due to encoded viral oncoproteins that inhibit host tumour suppressor genes [15, 16]. But transformation to BCC is extremely rare [4, 10]. In immunocompetent patients, the various factors that contribute to malignant transformation are chronicity of the lesions, its size and exposure to sunlight [12]. Chronic lesions particularly those that are large and located in sun-exposed areas are prone to malignant transformation.

Conclusion

Our case emphasizes the potential of Verruca vulgaris to undergo malignant transformation into BCC. To improve the prognosis early wide local excision of larger lesions with frozen section to confirm the tumour-free margin is

recommended. Regular follow-up is essential to detect any signs of recurrence. In case of recurrence, further management such as additional surgical procedures, radiation therapy or other treatments should be considered to manage the condition effectively and prevent further malignant progression.

Conflict of Interest

There is no conflict of interest

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