Giant Verruca Vulgaris-Rare Presentation

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Citation

K Pandurengan, N R.M, R Chidambaram, S T.K. *Giant Verruca Vulgaris-Rare Presentation*. The Internet Journal of Dermatology. 2010 Volume 8 Number 2.

Abstract

Common wart is the most frequent clinical lesion caused by human papillomaviruses (HPVs). Giant, chronic raised lesion, bilaterally on the same anatomical area is uncommon. We reported a case of giant verruca vulgaris in a 25 year-old man on both legs that slowly enlarged and hardened in 5 years. It was a hyperkeratotic verruca vulgaris, grey brownish in color, circumscribe, round, and 4.0x3.0x1.0 cm in size on the right leg and 3.5x3.4x0.5 cm on the left leg and around 0.4cm raised from the skin surface. Histopathologic examination revealed compact hyperkeratosis/orthokeratosis, many koilocytes in the granular and upper spinous layer, acanthosis, and elongated rete ridges that were pointing radially toward the center of the lesion. The patient was successfully treated with surgical excision followed by split skin grafting.

INTRODUCTION

Warts, or verrucae, are benign proliferations of the skin and mucosa that are caused by papillomavirus infection.[1,2] The papillomaviruses can be found in human and a number of other species.[1] Human papillomaviruses (HPVs) belong to the family of Papillomaviridae.[3,4] All papillomaviruses are highly host-specific, for instance, HPVs only infect human.[1]

HPVs are non enveloped double-stranded, circular, epitheliotropic DNA viruses of which more than 100 different genotypes have been identified. [1-4] Certain HPV types tend to occur at particular anatomic sites. However, warts of any HPV type may occur at any site.[2] Often associated with distinct regional predilection, histopathology, and biology, HPV types are divided into three categories: cutaneous (nongenital) types such as HPV-1,-2,-3, and -4; genital-mucosal types such as HPV-6,-11,-16, and -18; and those usually isolated from epidermodysplasia verruciformis such as HPV-5 and -8.[1]

Cutaneous manifestations of warts are varied, such as common warts (verruca vulgaris/VV), flat warts (verruca plana), and plantar and palmar warts. [1] Common warts represent the most frequent clinical lesions produced by the HPV.5 The clinical manifestation of VV are scaly, rough, spiny papules or nodules, and the size ranges from smaller than 1 mm to larger than 1 cm that can be found on any skin surface, most commonly on hands and feet.[1,2,6]

Here, we reported a case with a giant verruca vulgaris that had been present for 5 years on the leg bilaterally.

CASE REPORT

A 25 year old male patient presented to us with lump on the anterior aspect of the upper 1/3 rd of both the legs for more than 5 years. It started as small lump that slowly enlarge and became harder. There was no history of trauma, pain, or itch. He never scratches or rubs it. The lump had never been wounded or showed any sign of bleeding. He never gets any medical treatment previously.

On examination, a verrucous, hyperkeratotic, grey brownish, circumscribe, round ,grey brownish in colour, circumscribe, round, and 4.0x3.0x1.0 cm in size on the anterior aspect of the upper 1/3 rd right leg and 3.5x3.4x0.5 cm on the anterior aspect of the upper 1/3 rd left leg with hyperpigmentated surroundings and around 0.4cm raised from the skin surface was observed. (Figure 1a and 1b). There was no tenderness on palpation.

Figure 1

Figure 1a

Figure 2

Figure 1b

Histopathologic examination revealed compact hyperkeratosis/orthokeratosis, many koilocytes in the granular and upper spinous layer, normal keratohyaline granules, mild hypergranulosis, acanthosis, and elongated rete ridges that pointed radially toward the center. The dermis showed papillomatosis, mild perivascular inflammatory cell invasion and distended deep dermal vessels (Figure 2a and 2b).

Figure 3

Figure 2a

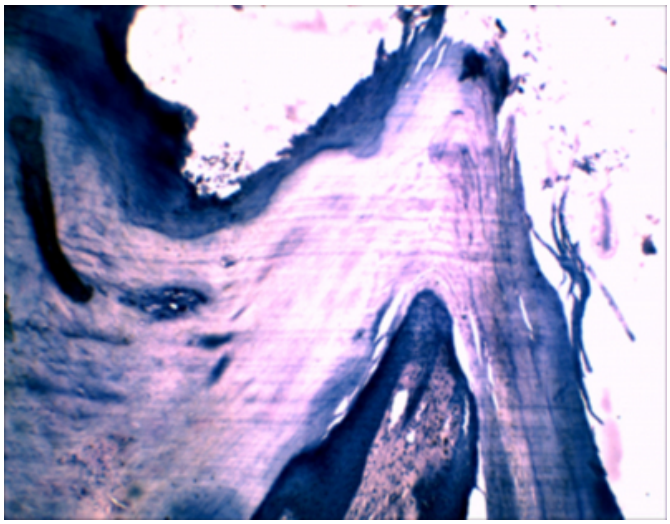
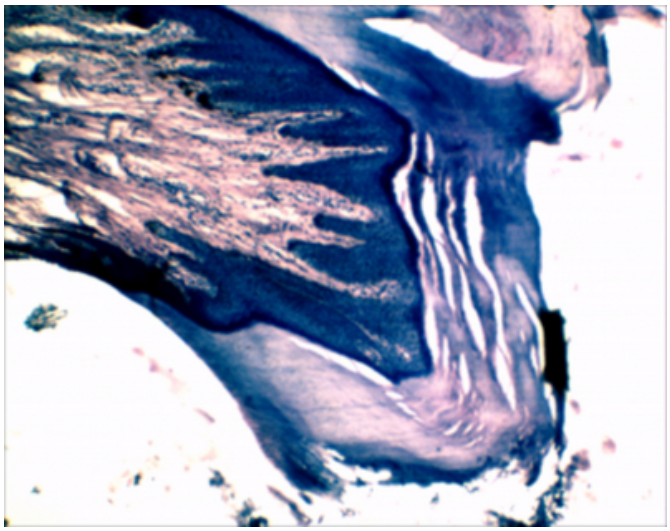


Figure 4

Figure 2b



Based on the clinical features and histopathologic findings, diagnosis of giant verruca vulgaris was made. The patient was treated with surgical excision followed by split skin graft and showed a good result (Figure 3a and b)

Figure 5

Figure 3a

Figure 6

Figure 3b

DISCUSSION

A wart is generally a small, rough growth, typically on hands and feet but often other locations, that can resemble a cauliflower or a solid blister. They are caused by a viral infection, specifically by human papillomavirus 2 and 7. There are as many as 10 varieties of warts; the most common considered being mostly harmless. It is possible to get warts from others; they are contagious and usually enter the body in an area of broken skin. They typically disappear after a few months but can last for years and can recur. Verruca vulgaris is one of the clinical manifestation of HPV cutaneous infection. [1, 2] It is transmitted through skin contact and autoinoculation. Further, it affects children, adults, and elderly, with no sexual predilection.[2,7] In our case, the patient was a 25 year-old male with a raised lesion on the leg bilaterally that enlarged and became harder in more than 5 years, with no itch or pain, and was diagnosed as VV. Verruca vulgaris usually are asymptomatic, but may cause cosmetic disfigurement.5,8Although the lesions are usually 2 to 10 mm in diameter, they can grow up to a size larger than 1 cm.[5] Autoinoculation may also occur, causing local spread of lesions.[2] Our case represented a typical case of VV, but it was a giant VV that was chronic lesion ,bilaterally on the same anatomical area. The diagnosis of wart is made primarily based on the clinical findings. [2, 7]

The histopathologic result of our case, was compatible with the histopathological features of VV that are acanthosis, papilomatosis, and hyperkeratosis.[5,7] Further, the rete ridges were elongated and at the periphery bent inward so they appeared to point radially toward the center .[5,7] The characteristic features that distinguish VV from other papillomas are the presence of foci of vacuolated cells, referred to as koilocytotic cells, vertical tiers of parakeratotic cells, and foci of clumped keratohyaline granules.[5,7]

The HPV infection occurs through inoculation of virus into the viable epidermis through defects in the epithelium.1 Common predisposing factors include trauma, biting, and sucking of nails, and scratching.[8] further, maceration of the skin is probably an important predisposing factor.[1] The patient could not recall any trauma to the affected area before the lesion exist. His previous activities also were not related to any condition that could be a possible cause of skin maceration. Minor trauma was then thought to be the predisposing factor of viral inoculation in this case.

Contagion of HPV probably depends on several factors, including the location of lesions, the quantity of infectious virus present, the degree and nature of the contact, and the general and HPV-specific immunologic status of the exposed individual. [1] The source or reservoir for HPV is believed to be individuals with clinical or subclinical infection, as well as the environment. [1] In this patient, the lesion was present for 5 years with no history of contact to other individual who had VV. The source of infection was unknown, and contact with individuals with subclinical infection or the environment was then thought to be the source of HPV infection

In VV, many different treatment modalities are available.[5] The proper approach to the management of warts depends on the age of the patient, the extent and duration of lesions, the

patient's immunologic status, and the patient's desire for therapy.[1] There are five general approaches: cytodestructive methods, chemotherapeutic compounds, antiviral therapies, surgery and immunotherapy.[5] This patient was treated with surgical excision followed by surgical excision with split skin graft, because it has never been treated before and due to the huge size and the result was good for a such giant lesion.

In conclusion, the diagnosis of giant verruca vulgaris was made based on the clinical features and histopathological findings.

Limitations of the study are non-assessment of Analysis using PCR and hybridization to identify the type of HPV DNA due to technical constraints. The strength of the study is histopathological confirmation of verruca vulgaris and rare presentation of such a giant bilateral lesion with raised surface.

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