

CASE REPORT

Atypical recalcitrant wart successfully cured with intralesional 5-fluorouracil

Muhammad Hasibur Rahman, FRCP, Nazma Parvin Ansari, DCP, Muhammad Hadiuzzaman, FCPS
Nahida Islam Nipa, DDV, Sabrina Alam Mumu, MBBS, Israt Jahan Chowdhury, MBBS

Community Based Medical College, Bangladesh

ABSTRACT

A 30 years male presented to us with a giant wart on the foot measuring 9cm/3cm with atypical presentation. It was resistant to many treatment. A variety of local treatments, including topical salicylic acid, cryotherapy, laser therapy, electro surgery, intralesional interferon and photodynamic therapy, are available to treat plantar warts. Here we report one atypical case of giant plantar warts, which had been previously treated without success. Since Fluorouracil, inhibits DNA synthesis, it is being used as an experimental treatment. We therefore decided to treat him with Intralesional Inj 5-Fluorouracil 25mg/ml mixed with local anesthetic lidocaine & adrenalin weekly for a period of 8 weeks. Dramatic improvement was noticed without any complications. Recurrent lesions were not evident in the one year follow-up period.

INTRODUCTION

Viral warts or verrucae are one of the most common skin diseases that are caused by human papillomavirus (HPV) resulting as benign proliferation of skin and mucosa. Plantar warts, a manifestation of infection by HPV-1, 2 and 4, tend to be smoother and flatter than common warts, and can also be painful when pressure is applied. 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 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 being considered largely harmless. It is possible to get warts from others; they are contagious. They typically disappear after a few months but can last for years and can recur.¹ A range of types of wart have been identified, varying in shape and site affected, as well as the

type of human papillomavirus involved. These include: common wart (*verruca vulgaris*), flat wart, filiform wart, periungual wart, genital wart, mosaic wart.

This virus does not produce acute sign or symptoms but induces a slow, focal expansion of epithelial cells. Lesion may remain subclinical for long periods or may grow to large fulminating masses that persists for month or even years. A subset of HPVs is known to cause benign warts that may undergo neoplastic transformation.²

There are many different treatments and procedures associated with wart removal. Topical salicylic acid, I/L bleomycine, systemic acetretin, cryotherapy, Dinitrochlorobenzine topical, Electro surgery, topical 5FU, Imiquimod, podophylin, tretinoin, laser, excision can be done. One complicating factor in the treatment of warts is that the wart may regrow after it has been removed.

Correspondence: Dr. Muhammad Hasibur Rahman, 96/G, Nirmalabas, Sheora, Mymensingh, Bangladesh, Email: dr_cosmoderma@yahoo.com

CASE HISTORY

A 30 year-old man presented with a painful, prominent, hyperkeratotic, verrucous wart on the sole and front of right foot. It developed soon after local trauma and was enlarging for the last 6 years. The wart had been unsuccessfully treated with various topical preparations and cryotherapy in the past. He was otherwise healthy and was not taking any medications. But he noticed that after taking homeopathic medicine it was enlarging in size and growing rapidly. There was no history of an immunodeficiency.

Physical examination revealed a solitary, 16/9 cm thick, hyperkeratotic, verrucous, yellowish, painful plaque localized on the distal part of sole and front of foot. (Fig. 1).



Fig. 1 Showing thick keratotic verrucous plaque on left sole.

The histopathological findings of lesional skin biopsy showed characteristic features of verruca vulgaris. There was acanthotic epidermis with hyperkeratosis, parakeratosis and papillomatosis. Vacuolated cells with small eosinophilic granules and basophilic keratohyaline granules were noticed in the upper epidermis.

Other laboratory tests were within normal limits. A potassium hydroxide examination of the scales was negative for fungus. Mantoux test was negative.

The patient refused both surgical excision and laser therapy. We therefore decided to treat him with Inj 5-Fluorouracil 25mg/ml mixed with local anesthetics lidocaine & adrenaline weekly for a period of 8 weeks. The wart decreased in size within 2 months (Fig. 2). The treatment was continued



Fig. 2 Showing marked improvement after 2 months of treatment.

without any local or systemic adverse events. At 6 month follow up visit, the skin of the foot was free from the wart (Fig. 3). And no recurrence was seen in the next 6 months.



Fig. 3 Showing complete clearance after 6 months of treatment.

DISCUSSION

Common warts (verrucae vulgaris) are hyperkeratotic, benign epithelial tumors, which are caused by human papillomavirus (HPV), mainly by HPV type 1, 2, 4, 5 and 7¹ and most often presenting on the hands, arms and legs in children and adults. Not only viral type, but also environmental and

host factors may influence the clinical appearance and localization of the warts.¹ Development of periungual warts, as in our case, is usually provoked by trauma and maceration.

Viral warts remain a therapeutic challenge for dermatologists and general practitioners. Usually, the treatment of warts is time consuming, expensive, and definitive cure is difficult to achieve. Patients are often frustrated by their large or multiple, recalcitrant and recurrent warts, and suffer from major cosmetic, functional and social discomfort.³

To date, a long list of therapeutic modalities has been used. Unfortunately, no treatment is ideal and warts are often recalcitrant to the various treatment options and combinations, especially in immunosuppressed patients. Keratolytic agents are usually the first-line approach. Other traditional treatments that are destructive and painful, and which might cause scarring include cryotherapy, surgical excision, electrodesiccation, infrared coagulation, laser vaporization, as well as photodynamic therapy and localized heating.^{1,4,5,11}

Topical agents, which interrupt the cell division (podophyllotoxin, 5-fluorouracil, bleomycin, intralesional or systemic interferon and retinoids) or modify the immune response (cimetidine and topical 5% imiquimod) have also been used for the therapy of viral warts.^{1,4} Recently, Egawa and Ono reported three immunocompromised patients with recalcitrant warts successfully treated with a vitamin D3 derivative, mexacalcitol, using a half-day occlusive dressing technique.⁶ To our knowledge, this was the only report where vitamin D3 derivatives have been used for the treatment of warts. Synthetic vitamin D3 derivatives have been shown to be effective in psoriasis and other disorders of abnormal epidermal growth and differentiation, including ichthyosis, palmoplantar kerato-

sis and pityriasis rubra pilaris.^{7,8} This supports the concept that vitamin D3 derivatives have an effect on epidermal cell differentiation and proliferation, inhibition of angiogenesis, and modulation of cytokine production^{9,10}

CONCLUSION

We describe a patient with a giant recalcitrant wart who was successfully treated with intralesional 5-Fluorouracil. The treatment was well tolerated by our patient, and no adverse events were observed. The giant foot wart with long duration and resistance to previous treatments, as seen in our case, is less likely to resolve spontaneously. We conclude that intralesional 5-FU may be a safe and effective therapy option for patients with recalcitrant warts. Further randomized placebo-controlled clinical trials could verify whether Intralesional 5FU are efficient in treating warts.

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