

Intralesional Vit. D as a cost effective modality for multiple warts: Case report

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Abstract All modalities of treatment for warts can be painful and may be associated with scarring and frequent recurrences. In addition, destructive modalities are not suitable for the treatment of multiple and refractory warts as they clear only treated lesions and not the distant ones. Hence, to overcome these shortcomings, immunotherapy is being tried widely for the treatment of warts over the last few years. It acts on the basic principle of enhancing cell-mediated immunity for the clearance of warts. Various antigens have been tried including measles, mumps, rubella (MMR); tuberculin purified protein derivative (PPD); *Mycobacterium w* vaccine and *Candida* antigen. However the cost of these treatment modalities is high. In a developing country, the affordability of the treatment plays a very important role in managing the patient with the disease. vitamin D comes up as one of the most affordable options for immunotherapy of the same.

Key words

Intralesional; Vitamin D; Multiple warts.

Introduction

Warts are a non-cancerous epidermal growth of the skin and mucosal membrane viral disease caused by human papillomavirus (HPV). Sudden clearance of lesions occurs under 24 months in about 80% of cases, people still look for a cure as it is cosmetically unpleasant and sometimes tender.¹

Destructive treatment of warts is a majorly used, like topical keratolytic, electrosurgery, cryosurgery or lasers.²⁻⁵

These modalities prove to be ineffective in providing good aesthetic outcomes and avoiding recurrences. Destructive modalities are of no use in the multiple and resistant warts as they act on treated lesions only and not distant ones.

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For such limitations, the immunotherapeutic approach has been employed to treat warts over the last decade It acts by stimulating cell-mediated immunity against warts.⁶ Various cell immunity stimulants like measles, mumps, rubella (MMR); tuberculin purified protein derivative (PPD); *Mycobacterium* vaccine and *Candida* antigen have been used with variable results.⁷⁻¹⁰

In a resource-limited setting, the cost of the treatment a crucial role in managing the patient of warts. vitamin D comes up as one of the most affordable options for immunotherapy of the same.

Few research papers have proven vitamin D topical therapy to be effective.^{11,12} Aktas *et al.* tried intralesional vit. D and reported to treat warts and reported good results.¹³ We report the response of multiple cutaneous warts to intralesional vitamin D3 injections.

The objective of the study is to evaluate the cosmetic outcome of treatment of wart with

intralesional vit. D vs other available treatment modalities; to compare variously available immunotherapy options from the affordability of the patient and their efficacy and safety profile.

Results

A 45y/o female patient came to our OPD with multiple papules showing filiform growth, excoriation marks and hyperpigmented macules present over the right leg associated with itching. After the clinical diagnosis of viral warts and knowing the patient's socioeconomic status. 0.1-0.6 mL vit. D₃ sol. (600,000 Int. Units, 15 milligrams per mL) injections given into the lesions. 5 warts treated each session at 3-weekly intervals or until clearance or up to a total of 4 sessions in a single lesion. 8 months follow-up after the treatment to detect any recurrence or relapse was done.

After 2 months the lesions showed marked improvement with no associated scarring and hyperpigmentation. No recurrence or relapse was noted after 8 months.

Discussion

Verruca Vulgaris (viral warts) are an everyday encounter in a dermatologist's clinic. While there are many treatment options available. Treatment of recalcitrant often leads to recurrent, scarring and dyspigmentation, often with a high burden on the patient's pocket. Lately, immunotherapy injections have gained popularity due to their effectiveness in clearing warts by immune recognition and cheaper treatment cost.

Various studies have pointed toward immunotherapy being a better option for the management of multiple cutaneous warts and are proved to be superior to conventional treatment. While the role of vit. D can be a factor in the



pathogenesis of warts as shown by *shalaby EM et al.*¹⁴

By the use of Intralesional vit. D, we have the following advantages:

1. The cost of treatment is greatly reduced.
2. Immunotherapy advantages like treating multiple warts, reducing the reoccurrence and avoidance of scarring.
3. Correction of vit. D levels which might be one of the causes of the infection in the patient especially in a country like India nutrition is not given a lot of importance.

Conclusion

Intralesional injection of vit. D is a safe, effective and inexpensive approach towards treating multiple warts in a patient.

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