

A Case Study on Cutaneous Wart Treatment

By Fusion Pharmacy Staff



Case Report:

A 15-year-old male with active Crohn's disease was diagnosed with cutaneous warts bilaterally around the knees. Patient's Crohn's treatment consisted of Infiximab, an immunosuppressant therapy. Patient has had worsening of cutaneous warts for the past several years. Social stigma was a major factor for seeking treatment, as patient felt uncomfortable wearing shorts in public and participating in athletic events.

Cryotherapy was performed three times in clinic with no resolution. After each treatment there were noticeably more recalcitrant warts present within the weeks and months following cryotherapy. Patient desired full eradication of warts and pursued alternative treatments due to the lack of efficacy of the cryotherapy.

A preparation of bupivacaine, cimetidine, deoxy-D-glucose, diclofenac, salicylic acid and urea (Figure 3) was compounded into a cream dosage form and applied via cotton tipped applicator once daily. Five weeks of therapy led to a complete resolution with only minimal discoloration at sites, likely due to residual scar tissue from prior unsuccessful treatments. To date (8 months) patient has been free of any signs or symptoms of recurrence.

Use of Infiximab for Crohn's management did not change at any point during or after treatment.

How Do Warts Occur:

Human papillomavirus (HPV) infects skin and other epithelial surfaces and is associated with a variety of benign and cancerous lesions. The most common manifestation of HPV is warts (*verruca vulgaris*) and most people experience warts in one form or another at some point in their lives.¹ HPV is responsible for a variety of warts including common warts, plantar warts, flat warts, and genital warts. These warts may occur singly or in groups, and can present in multiple locations simultaneously. Warts most often occur in children and young adults, however, medical conditions such as atopic dermatitis and immunosuppression may increase risk.

Conclusions:

Current accepted treatment modalities adapted into primary care settings have not been shown to be fully effective, and have high rates of recurrence. This case study provides evidence of a potential new treatment for resistant recalcitrant warts. The compounded preparation uses a variety of products with various mechanisms of action. Bupivacaine and diclofenac are used to reduce sensitization to pain and inflammation. Urea as a keratolytic helps soften the skin and allows better penetration. 2-deoxy-D-glucose (DDG) may inhibit viral cell growth.² Cimetidine has been shown to

help through inducing different factors of the immune system.^{3,4} Salicylic acid acts as a chemical irritant to the affected area and remains a first-line therapy.

Warts may resolve spontaneously if left untreated. However, the emotional impact of treatment should not be overlooked. In patients who are immune compromised such as this patient, it is important to consider treatment as failure to do so can lead to more extensive and resistant warts.⁵

Our patient was able to achieve complete response after only five weeks of treatment without recurrence. This compounded preparation resolved this particular infection and should be considered a viable treatment option for similar patients. From this case we find that the combination of these products provides benefit in the treatment of recalcitrant warts and warrants further research.



References:

- ¹Kwok, Chun Shing, et al. "Topical treatments for cutaneous warts." *Cochrane Database Syst Rev* 9 (2012).
- ²Davis, M. D. P., J. A. Weick, and J. S. Link. "Response of predominantly recalcitrant cutaneous warts to topical chemotherapy." *Journal of the European Academy of Dermatology and Venerology* 20.2 (2006): 232-234.
- ³Juiliana, John V. "Cimetidine as a First-Line Therapy for Pedal Verruca." *Journal of the American Podiatric Medical Association* 95.3 (2005): 229
- ⁴MITSUISHI, Tsuyoshi, I. I. D. A. Kazumi, and Seiji KAWANA. "Cimetidine treatment for viral warts enhances IL-2 and IFN- γ expression but not IL-18 expression in lesional skin." *European Journal of Dermatology* 13.5 (2003): 445-448.
- ⁵Gibbs, S., et al. "Local treatments for cutaneous warts." *The Cochrane Library* (2003).