A Rational Criteria: When Not to Treat Warts

How to decide which warts to let resolve on their own.

BY STEVEN LEON, MS, PA-C

>> "I have a contagious skin disease, should I treat it?" Most providers would most certainly say "Yes." What if the question was, "I have genital warts; Should I treat it or let it get better on its own?" The answer again would be yes due to the risk of HPV related cancers, spread to sexual partners, as well as psychological, social, and sexual distress the disease causes. But what about non-genital warts?

We have all been taught that not treating warts is a medically acceptable option because, among other reasons, the vast majority go away on their own. We are left with only our clinical judgement and very few guidelines to figure out which warts we should let spontaneously resolve.

The decision is complex. There is too much variation in wart presentation, patient specific factors, treatments modalities, and providers' skills to be able to make a clear treatment algorithm. Ahead, I examine all the factors that should go into the decision whether or not to treat non-genital warts.

The patient almost certainly wants their wart removed if they are in your office. If you cannot articulate why non-treatment is the best option, the patient may think you just don't want to treat it, you don't care, or you are too lazy (all critiques I have heard from patients whose previous providers did not treat their warts). Documenting your reasons is important. First your are sharing your clinical decision making with any colleague who treats the patient after you. Second, it protects you in the medical/legal context. If wart treatment caused a scar, an infection, or other bad outcome, documenting why you thought treatment benefits outweighed risks, you would be standing on much firmer medical/legal ground.

Let's examine the three main reasons underlying why it is an acceptable option to not treat warts.

#1: WART TREATMENTS ARE NOT HIGHLY EFFECTIVE

Wart treatments don't work well. The poor efficacy of wart treatments is detailed in the 2012 Cochrane review on cutaneous warts. It finds salicylic acid (SA) and cryotherapy to be no better than placebo or at best "modestly effective." It further concludes that for all the other treatments examined (topical 5-fluorouracil, dinitrochlorobenzene, intralesional bleomycin, intralesional interferon, photodynamic therapy, and intralesional antigen), "None of the other reviewed treatments appeared safer or more effective than SA and cryotherapy." The review does stipulate that "Overall, providing a useful idea of 'what works' from such a wide range of studies was difficult, as many studies were of poor quality." The Cochrane report did not cover surgical removal of warts or laser treatments.

Most providers would agree that surgical removal can be highly effective, but there are many situations where it cannot be used. Usually this is due to the patient's inability to tolerate the pain, fear of needles, or concerns of scarring. Some providers have reported high rates of success with bleomycin injections, various laser treatments, and compounded medications like salicylic acid plaster and WartPeel (17% salicylic acid/2% 5-FU) (see Case Study on page 41).

We need better wart treatments, but we can also continue to improve our current medications and techniques. The better our treatments get, the fewer difficult conversations we will need to have about why it is better to not treat.

#2: TREATMENT MAY BE WORSE THAN THE DISEASE

Most treatments are painful, may require significant healing times, and often target sensitive areas. As providers, we have a fairly good idea about the pain and healing time of wart treatments, but what about the other part of the equation? How is this wart affecting the patient's life? Are they in physical pain, embarrassed, or being teased at school? Does it affect their work or social life? Does it make it difficult to play sports?

A 2003 study on quality of life of wart sufferers revealed that 81.2% were moderately to extremely embarrassed by them and 70.5% were moderately to severely concerned about negative appraisal by others. Patients with plantar warts had less embarrassment but significantly more pain than other wart sufferers.

About one-quarter (24.7%) said warts made it moderately to extremely difficult to play sports. Moderate to severe discom-

AN EFFECTIVE OPTION FOR TREATING CUTANEOUS WARTS: A CASE STUDY

We have had breakthroughs in difficult-to-treat diseases like psoriasis, acne, and atopic dermatitis, but the humble wart remains stubbornly defiant to our best treatments, especially severe recalcitrant warts. A Cochrane meta-analysis found that SA and cryotherapy were little better than placebo and other treatments, from intralesional bleomycin to duct tape, were found to be either ineffective, marginally effective or had insufficient high-quality studies to make a determination.[1] Better technique, patient education, and closer follow up can improve efficacy. However, with treatments that are not very effective to begin with, the needle can only be moved so much.

LOOKING FOR A BETTER WAY

MedCara Pharmaceuticals offers WartPeel: 5-FU (2%) and Salicylic Acid (17%) in Remedium Adhesive Gel, a compounded medication with three US patents that has been available since 2004 exclusively through NuCara pharmacies.

WartPeel was originally developed in collaboration with podiatrists to treat plantar warts. According to the patent, it is "75% by weight of an adhesive; whereby the composition is a sustained release topical gel that releases salicylic acid onto the wart for removal of keratin of the wart and surrounding skin to allow penetration of the 5-FU into the wart." It is available by mail order in 48 states (www.WartPeel.com/prescribers).

The vast majority of topical wart treatments are in vehicles not designed to treat warts but designed to spread on the skin, better suited for rashes than warts.

MedCara wanted to create a vehicle better suited to treat warts after patients experienced severe irritation to perilesional skin, long treatment times, and a high failure rate with traditional ointments and pastes combined with salicylic acid and 5-FU. The vehicle needed to stay on the wart and not migrate to perilesional skin. It also needed to be able to penetrate the dense compact corneum of the wart. This led to the development of a new vehicle at the heart of the WartPeel patents, Remedium Adhesive Gel.

A concentrated drug matrix is formed as WartPeel dries. It intimately attaches to the wart, like a patch and has sustained release properties. The adhesive gel donates moisture to the compact corneum, facilitating drug release and penetration of the active ingredients through the compact corneum to the level of the living wart. When it dries, additional hydration occurs due to occlusion. This is enhanced by covering the dried WartPeel with 3M Blenderm tape to reduce TEWL (tape is included with every prescription). Salicylic acid works as a skin-penetrating agent (as do other inactive ingredients) and although it does also destroy wart cells through its keratolytic action, WartPeel's effectiveness is thought to be due largely to the consistent delivery of 5-FU to the level of the living wart.

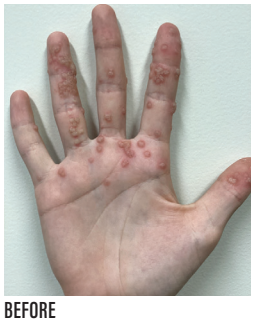
I've previously reported on WartPeel's efficacy for warts (November 2017) and seborrheic keratosis (October 2019) in *Practical Dermatology*. I have also found it to be effective and well tolerated for male external genital warts. No cases of scarring have been reported to date. WartPeel seems strong enough to irritate the dermis but not damage it, even with overuse. Over the years, I have observed a 95% cure rate in 1-3 weeks when used properly. Most failures come from severe palmar and plantar warts in adults who have had them more than 5 years. Other dermatologists have reported excellent results as well.[2,3]

Case Study

A 25-year-old Caucasian male presented with extensive warts on his left palm and fingers. His condition was complicated by palmar hyperhidrosis, heavy occupational use of his hands, wearing gloves at work, and warm climate. The patient had the warts for 1 year and had failed cryotherapy treatments.

The patient was advised to apply WartPeel to the first and second finger and the medial palm at night, cover the application site with 3M Blenderm Tape, and then wash it off in the morning. After these warts resolved, the plan was to treat the remaining warts. The patient was seen weekly for curettage, instruction, and monitoring due to the severity of the case.

In weeks 1 and 2, the patient followed instructions to treat first and second fingers only with good progress. The warts were at least 75% improved on average with the smaller ones completely resolved. The patient was still working as an auto mechanic and said he could still perform his normal work duties



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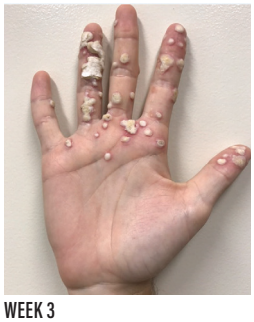

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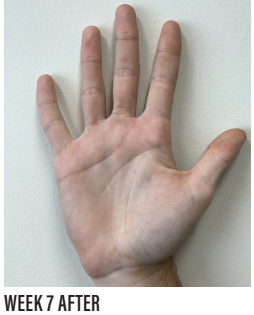

WEEK 7 AFTER

but sometimes had to favor his other hand. He was advised to continue to treat his first and second finger for the next week.

The patient presented at week 3 and had started treating all fingers because treatment had little effect on his ability to work and he wanted to progress faster. Week 4 showed near total clearing of his first and second finger and significant progress on his other fingers. At week 7 the patent presented with total clearance. (See photos on page 41.)

WartPeel proved to be effective for this difficult case. The fast treatment time reduced the risk of auto-inoculation during treatment and the treatment was so well tolerated that he was able to continue working. The adhesive gel vehicle and occlusive tape aided deep penetration through the hyperkeratotic wart tissue. The patient was advised to return if any additional warts developed. Subsequent visits for unrelated problems showed no recurrence.

1. Ahn CS, Huang WW. Imiquimod in the treatment of cutaneous warts: an evidence-based review. Am J Clin Dermatol. 2014 Oct;15(5):387-99.
2. https://www.mdedge.com/dermatology/article/225023/pediatrics/expert-shares-his-approach-treating-warts-children
3. https://fallclinical.health/derms-and-conditions-season2-podcast-episode-20

fort from warts occurred in 57.1% of people. The patient experience should inform the decision to treat or not to treat warts.

#3: WARTS ARE SELF-LIMITING

Most warts go away on their own, but not nearly as quickly as patients want or expect them to and we have all seen a small subset of warts that last decades. If we are recommending that the patient wait until their wart goes away on its own, we need to make sure they understand the timeframe. A study of an institutionalized population showed two-thirds of warts resolving within a 2-year period. Patients may change their opinion about non-treatment after learning this.

RISK OF AUTOINOCULATION AND TRANSMISSION

Warts are contagious and this must be considered in the treatment decision. Does this patient have the potential to greatly spread their warts through autoinoculation? Do they engage in activities that can easily spread warts to others? How many people are they in close or skin-to-skin contact with? Do they have habits that accelerate autoinoculation? For example, you see a patient that has two periungual warts and find out they have a long-standing habit of nail biting. This would be an important factor to consider. Other factors that would increase autoinoculation and transmission that should be considered when assessing a wart patient include:

- Warts forming in areas of hyperhidrosis
- Hand or foot eczema or atopic dermatitis
- Any immunocompromised patient
- The patient is a child with many siblings
- High risk activities for spreading warts include
  - Grappling sports like jujitsu, wrestling, or judo
  - Sports where you may share equipment like gymnastics, baseball, volleyball, basketball, or swimming (wet feet walking on a rough surface can spread plantar warts)
  - Using shared equipment at the gym, especially free weights
  - Walking barefoot at dance or fitness studios

WHERE AND WHEN WARTS ARE LIKELY TO SPREAD

You may notice in the clinic that the vast majority of wart patients only have one type of wart in one area. There are more than 100 types of HPV that infect the human body (fda.gov/consumers/women/hpv-human-papillomavirus). Warts have evolved to specialize in infecting typically just one or occasionally two areas. Genital warts are a perfect example. If your logic is that you should aggressively treat all hand warts because they can spread all over the body by autoinoculation, this is incorrect. They can certainly spread to the patient's hands or other's hands but rarely to other areas.

There is also evidence from genital wart studies that warts are more infectious in their first 2-3 months and much less likely to spread after 12 months. This correlates with clinical experience. Warts tend to grow the most in the early months and stabilize later on. The increased viral activity in the early, fast-growing months could be responsible for increased transmission rates in the first three months.

MAKING THE MOST INFORMED DECISION

Warts are stigmatizing. They can cause pain, embarrassment, and interfere with work, sports, and other activities. Due to the limited efficacy of many wart treatments and the sensitive areas where warts grow, it can be a difficult decision whether to treat or monitor them. When we understand the underlying logic behind the decision to treat or not to treat warts, understand the patient experience, and recognize which wart cases may rapidly spread through autoinoculation and transmission, we have a solid basis for making this difficult decision. ■

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1. Kwok CS, Gibbs S, Bennett C, Holland R, Abbott R. Topical treatments for cutaneous warts. Cochrane Database of Systematic Reviews 2012, Issue 9.
2. practicaldermatology.com/articles/2017-nov/a-highly-effective-topical-compounde d-medication-for-the-treatment-of-cutaneous-warts
3. Ciconte A, Campbell J, Tabrizi S, Garland S, Marks R. Warts are not merely blemishes on the skin: A study on the morbidity associated with having viral cutaneous warts. Australas J Dermatol. 2003 Aug;44(3):169-73.
4. Massing AM, Epstein WL. Natural history of warts. Archives of dermatology 1963;87:306-10.
5. Savin JA, Noble WC. Immunosuppression and skin infection. Br J Dermatol. 1975 Jul;93(1):115-20.
6. Morison WL. Viral warts, herpes simplex and herpes zoster in patients with secondary immune deficiencies and neoplasms. Br J Dermatol. 1975 Jun;92(6):625-30.
7. Cobb MW. Human papillomavirus infection. J Am Acad Dermatol. 1990 Apr;22(4):547-66.