

Resistant Plane Warts Treated by 40% Salicylic Acid and 16% Lactic Acid Combination on the Face

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ABSTRACT

Human papillomaviruses (HPV) cause warts, which are the benign epithelial proliferation of the mucous membrane and skin. HPV-3 and HPV-10 commonly cause plane warts. Multiple treatment options must be used as no specific treatment option is available. We have a lot of limitations for the face as treatment can cause permanent scarring on the face. We report a case of 41 years immunocompetent male presenting with many plane warts on the face who was successfully treated with topical application of 40% Salicylic acid cream and 16% lactic acid cream made up of 44% of bees wax on lesions after a failure of many other treatment options, a) Topical zinc oxide twice per day for 3 months, b) Topical 5% salicylic acid dispensing cream made in 95% bees wax, c) Topical 5% fluorouracil cream, d) Topical imiquimod cream, e) Topical retinoids cream only at night for one month, f) Oral Isotretinoin 20mg twice per day for 2 months, and 3 sessions of cryotherapy. The patient's last treatment was oral isotretinoin 20 mg twice per day for the last 2 months. In general, doctors avoid using more than 5% salicylic acid, but after a detailed discussion with the patient, we decided to try this combination and succeeded.

Keywords: Human papillomavirus, plane warts, retinoids, salicylic acid, viral infection.

INTRODUCTION

Plane warts on the face are troublesome for patients and physicians, too, as they are hard to treat [1]. There are so many treatment options available, but being a physician, it is very hard to choose the better option as not every treatment option can be applied to the face. Plane warts are mostly recurrent and very resistant to treatment. They are contagious, and patients have to be counselled about the transmissibility to other parts of the body or another person [2]. Generally, topical zinc, 5% salicylic acid (SA), 5 fluorouracil, imiquimod 5%, and retinoids; intralesional zinc; oral retinoids, and cryotherapy are used as treatment. Among these options, most physicians choose topical 5% salicylic acid and oral retinoids and with the usage of salicylic acid, most physicians are always skeptical as they have the fear that more than 5% SA usage can leave a permanent scar on the face [3]. This limitation and fear make this disease very difficult to treat, but our team decided to cross this threshold, and after discussion with the patient, we decided to use a combination of 40% SA and 16% Lactic Acid (LA) on facial plane warts [4].

CASE REPORT

A 41-year-old married male came to us with a complaint of dark grey papules all over his face (Fig. 1A). The

patient had Plane Warts (PW) for more than 5 years. He visited many physicians and attempted every treatment option for these lesions, including topical zinc, 5% salicylic acid, 5% fluorouracil, 5% imiquimod, topical and oral retinoids, and cryotherapy. He told us that these lesions had been lightened after different treatments, but never completely cleared. The patient was in severe depression and was ready to use any treatment option as all available options had been used without adequate success [5]. After discussion with the patient, our team decided to apply a topical 40% (SA) and 16% (LA) combination make in cream made up of 44% of bee wax. This combination has been dispensed from the authorized pharmacy in which 40% SA and 16% LA make in cream made up of 44% of bees wax. The total duration of treatment was 5 weeks. The patient applied a combination cream once daily from a small brush gently and specifically on lesions without touching normal skin

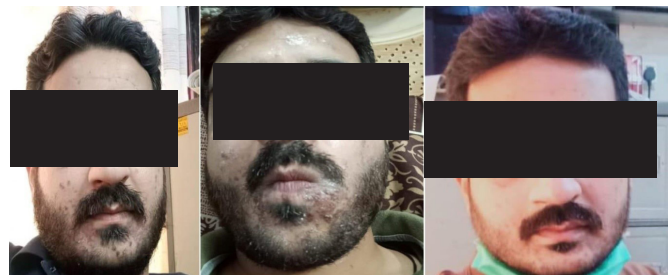


Fig. (1): (A) Multiple greyish color Papules at the start of the treatment. (B) Hyperpigmentation of the lesions after applying composition. (C) Lesions cleared.

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and let it dry [6]. We were skeptical as chances of severe exfoliation or permanent scarring were present. The patient was advised to report back after 2 weeks. On his next visit, the patient developed post-inflammatory hyperpigmentation but was strong enough to continue the application (**Fig. 1B**). After 3 weeks patient came to us with no scarring, post hyperpigmentation, and complete remission of his lesions, and he was completely satisfied (**Fig. 1C**).

CASE DISCUSSION

Flat warts, commonly called *Verruca plana* or Plane Warts, are 2 to 5 mm in diameter reddish-brown or flesh-colored papules with a slightly raised, flat-surfaced surface [7]. The hands, legs, or face are the most common locations for such lesions, and a linear arrangement is not rare. Flat warts exhibit substantial perinuclear vacuolization surrounding pyknotic, basophilic, centrally placed nuclei that may be in the granular layer on histology. "Owl's eye cells" are the name for these cells.

Plane warts are produced by the human papillomavirus (HPV) types 3 and 10. HPV is a DNA virus and is classified based on the viral genome into different genotypes, each designated by a number (e.g. 3, 10, 16, 18, etc.) [8]. HPV can be detected by electron microscopy (as intranuclear crystalline and occasionally filamentous inclusions), but its specific identification depends on nucleic acid hybridization. The condition most commonly affects young people and affects conspicuous skin surfaces such as the forehead and chin on the face and the backs of the hands. The clinical presentation is used to make the diagnosis. Topical retinoids, such as isotretinoin, tretinoin, and tazarotene, are the most often, used therapy approaches as ointments or solutions. Topical retinoids, on the other hand, are linked to a variety of side effects, including exfoliation, erythema, and skin irritation. Antimitotic medications like 5-fluorouracil liquid or ointment, as well as immunomodulating formulae like imiquimod cream and podophyllotoxin liquid, are also employed. Within the first two years of the condition, spontaneous remission of skin abnormalities without medication is feasible, although it is uncommon. Oral retinoid is often used to treat plane warts, although the outcomes are inconclusive. In HPV-infected cells, isotretinoin also causes apoptosis. Because HPV replication is linked to keratinocyte differentiation, it's thought that isotretinoin prevents DNA replication in infected cells, resulting in remission of skin lesions. Physicians mostly avoid topical and oral retinoids in young females because of the congenital malformation in a fetus and because of this retinoid usage became very limited. Another option mostly used is 4% of Salicylic acid.

CONCLUSION

Plane warts are tough to cure since there are so many therapy options but no specific treatment available. Patients having plane warts are usually not comfortable cosmetically because of these lesions on a visible part of the body. The majority of physicians choose cryotherapy, topical 5% SA, and oral retinoids. Therapies used for plane warts mostly have the possibility of lifelong scarring

as well as a significant risk of severe exfoliation. Our team has made the decision to use a topical treatment of 40 % Salicylic acid and 16 % Lactic acid make in 44% of bees wax to treat this problem. Surprisingly, this mixture worked, and all lesions had eliminated within 5 weeks of commencing therapy.

CONSENT FOR PUBLICATION

The patient has given consent to share his picture and report his case.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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