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**ЭФФЕКТИВНОСТЬ САЛИЦИЛОВОЙ КИСЛОТЫ ПРИ БОРОДАВКАХ
И ДЕЙСТВИЕ ДРУГИХ ЛЕКАРСТВ И МЕТОДОВ ТЕРАПИИ**

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**EFFECTIVENESS OF SALICYLIC ACID FOR WARTS AND THE EFFECTS
OF OTHER MEDICATIONS AND THERAPIES**

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Резюме. В данной диссертации анализируется реакция пациентов на местные кремы, растворы и другие методы лечения вирусных бородавок с целью их окончательного удаления с кожи.

Ключевые слова: салициловая кислота, бородавки, побочные эффекты, дерматологическое лечение, альтернативные методы лечения.

Resume. This thesis analyses patient responses to topical creams, solutions, or other treatments for viral warts, aiming to achieve permanent removal from the skin.

Keywords: salicylic acid, warts, side effects, dermatological management, alternative therapies.

Actuality. Viral warts, or verrucae, are benign skin growths caused by the human papilloma virus (HPV). They manifest as thickened, hardened patches on the skin, resulting from an overproduction of keratinocytes, the primary cells in the epidermis. These warts typically appear as elevated bumps with a rough, irregular surface, often likened to cauliflower. They can occur on various body parts, including the hands, feet, and face.

Epidemiological studies indicate that viral warts are especially common among younger individuals. Research suggests that between 3% and 13% of the general population is affected, with prevalence rates potentially reaching up to 10% among school-aged children. The transmission of HPV occurs through direct contact with infected skin or contaminated surfaces, making schools and communal areas hotspots for spreading the virus.

While viral warts are generally harmless and often resolve spontaneously over time, they can be bothersome or painful, particularly when located on weight-bearing areas like the soles of the feet. Treatment options include topical therapies, cryotherapy, and laser treatments, depending on the wart's size, location, and persistence. Awareness and preventive measures can help reduce transmission and incidence among susceptible populations.

Aim: the main aim of the thesis is to analyze the patients' responses to topical creams/solutions or other ways of the treatment to remove warts permanently from the skin layer.

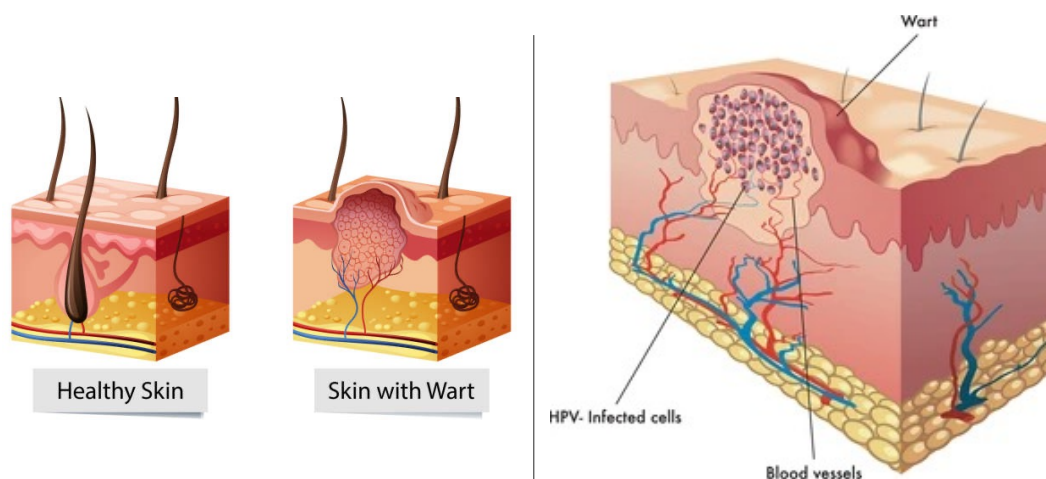


Fig. 1 – Image with wart rooted illustration in the skin

Objectives:

1. Gather drug reviews from Drugs.com and dermatological treatment insights from Lady Ridgeway Hospital. Categorize by treatment type.
2. Examine patient responses, identify trends, and compare pharmaceutical treatments with dermatological procedures for effectiveness and satisfaction.
3. Summarize findings, highlight strengths and limitations, and propose improvements for dermatological treatment strategies based on patient experiences.

Material and methods. An analysis of patients' responses to certain medications and the general outcomes of the other ways of treatment from the open-source portal "Drugs.com" with actual patient's response and reviews to drugs irrelevant to certain brands. The Drug classes such as Antiseptic and germicides, Topical acne agents, Topical keratolytic, Topical antineoplastics were collected from the mentioned open-source portal. Around 20 patient's reviews were analyzed. The information about the laser treatment, Electrocautery, Cryotherapy (liquid nitrogen) were collected from the Dermatology department of Lady Ridgeway Hospital for children

Results and their discussion. Salicylic acid functions as a keratolytic agent, causing the shedding of the wart's hyperkeratotic tissue. This mechanism relies on gradual chemical debridement, which, if not carefully controlled, can lead to damage of surrounding healthy skin. The risk of burns is particularly relevant, especially with higher concentrations and prolonged application. Furthermore, the inflammatory reactions and allergic responses suggest that some individuals possess heightened sensitivity to salicylic acid. These adverse events highlight the importance of dermatological ability in managing wart treatment. Dermatologists are equipped to assess the type and location of the wart, evaluate the patient's skin type and medical history, and provide tailored treatment recommendations.

According to the collected data about the medications, salicylic acid is being the most popular among the public. It is being exposed to public in varying names as for example compound w, duo-film, wart remover etc. The dosage forms were topical bar (1%), topical cream (3%, 6%), topical foam (6%), topical gel (2% - 17%), lotion, ointment, shampoo etc.

Out of all the patients 33% of them reported positive experience with mentions of the warts were removed from their skin within 2-4 weeks. As on the other side the negative reviews were also collected. Out of the remaining 67% to the total incidence were only negative and partial reviews from the consumers. 33% of them were complete negative response to the total incidence. The reviews said that the patients got second-degree burns with allergic and inflammatory reactions as well. The negative aspects were not only second-degree burns but high fever, purulent inflammations, skin blisters, exudative fluid outflows through the wounds

According to the collected results the salicylic acid was only completely useful for the 33% out of the recorded patients only, still had contraindications and side effects. Other than salicylic acid, Cantharidin a blistering agent worked well for patients who did not have much effectiveness from salicylic acid. In STD clinics of Sri Lanka the most used medication was Podophyllin resin on treating warts in the genital regions. According to other datas for the therapies, Cryotherapy, Electrocautery and Laser treatments were more popular and had lesser negative outcomes than scar forming, depletion of hair follicles.

Drugs used to treat Warts
 The medications listed below are related to or used in the treatment of this condition.

All drug classes Filter

Drug name	Rating	Reviews	Activity	Rx/OTC	Pregnancy	CSA	Alco
salicylic acid	5.6	9 reviews	<div style="width: 56%;"></div>	Rx/OTC	C	N	
fluorouracil Off-label	5.3	3 reviews	<div style="width: 53%;"></div>	Rx	X	N	
Compound W	4.5	4 reviews	<div style="width: 45%;"></div>	Rx/OTC	C	N	
DuoFilm	10	1 review	<div style="width: 100%;"></div>	Rx/OTC	C	N	
Wart Remover	3.5	2 reviews	<div style="width: 35%;"></div>	Rx/OTC	C	N	
cantharidin	10	1 review	<div style="width: 100%;"></div>	OTC		N	

Fig. 2 – Distribution of drugs in all classes with most usage in the site of Drugs.com with the reviews from real patients

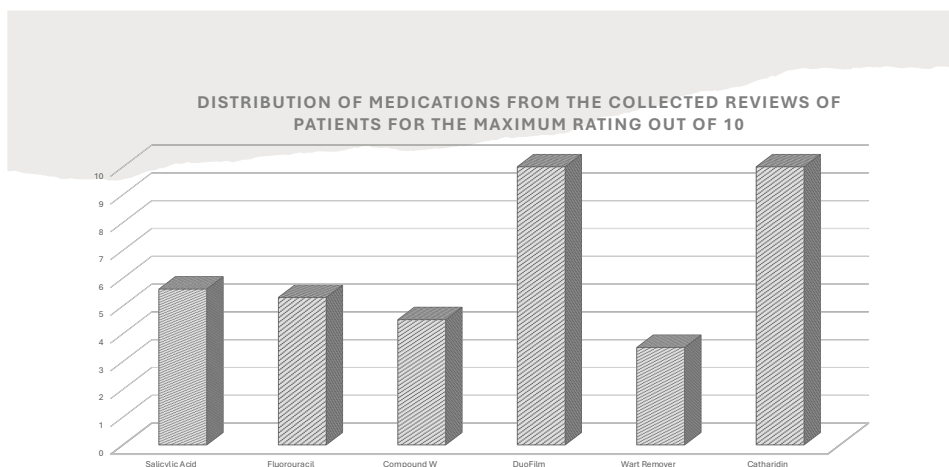


Fig 3: The Medications and their ratings after Patients usage from the site Drugs.com

Fig. 3 – The Medications and their ratings after Patients usage from the site Drugs.com

Conclusion: While salicylic acid is a popular, readily available wart treatment, its limited efficacy. Alternative treatments like cantharidin, cryotherapy, electrocautery, and laser offer better outcomes and are vital for dermatology.

Literature

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