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“TREATWART”-A new treatment for skin viral Warts
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In general the proposed two-step method is characterized as follows: 1. 100% efficiency 2. Simplicity and economical attractiveness 3. The absence of side effects and complications 4. The virtual absence of recurrences 5. The absence of the formation of keloid scars 6. The relative cheapness and high revenue 7. No need for expensive facility set up. The treatment can be performed in medical office as well as in beauty parlor 8. No need to purchase expensive equipment 9. The relatively short duration of the procedure and the high rotation of patients (in one business day, you can treat 25-30 and more patients) 10. The stability and reproducibility of the preparations used 11. The mobility of the service and the possibility of creating a network of offices employing this technique 12. The patient feels no discomfort and in 2-3 hours after the procedure can follow the common daily regime (take a shower, use makeup, continue the usual diet, etc.).

Key Words: treatment, skin,,viral warts,verruca vulgaris ,the patient, the human papilloma virus

Introduce:After acne, warts are the most common dermatological complaint. Three out of four people will develop a wart (verruca vulgaris) at some time in their lives. Warts are slightly contagious, and can spread to other parts of the body by touching them or shaving around infected areas. Children and young adults are more prone to getting warts because their defense mechanisms may not be fully developed, but it is possible to get a wart at any age. Warts are caused by the human papilloma virus (HPV), which enters the skin through a cut or scratch and causes cells to multiply rapidly. Usually, warts spread through direct contact. Each person responds differently, and not everyone exposed to HPV will develop a wart. Patients with warts seek advice from cosmetologists, general practitioners, pharmacists, naturopaths, allied health professionals, family or friends, dermatologists and others. Unfortunately, even with years of medical literature on this subject, high-quality level1 evidence for the efficacy of almost all treatments is nonexistent (1,2). No treatment has yet proven 100% effective for a cure. Pain related to treatment, side effects and costs could be determining factors in choosing a therapy (3). In this article we present the new, innovative approach to treatment of skin viral warts.

Materials and Metodes:86 patients with skin viral warts were treated with the proposed method. Among them: women (14-64 year old) - 54, men (15-55 year old) – 32. Single warts were detected in 23 patients, two warts – in 24 patients, three warts – in 17 patients and more than three warts – in 22 patients. All together 244 warts were treated. 64 warts had the size less than 1.0 mm, 99 warts had the size more than 1.0 up to 2.0 mm, 54 warts had the size more than 2.0 up to 3.0 mm, 18 warts had the size more than 3.0 up to 4.0 mm. and 9 warts had the size more than 4.0 up to 5.0 mm. Distribution of the study material by the size of warts and their localization is shown in Table 1. Table1. Distribution of the study material by the size of warts and their localization ts:

Method of treatments:two innovative and proprietary treatment preparations were used in this study. Preparation N1 - the ointment with pronounced anti-viral effect. The ointment contained three groups of active ingredients acting on different strains of HPV. The first two groups were presented by singular substances. The third group was a complex of lipid-conjugated microelements. Composition and technology of this complex is a subject of patent application and cannot be disclosed and discussed in details in the format of this article. We can only note that the technology of this complex provides the algorithm of simultaneous compliance of such factors as oxygenation of the system, heating-cooling regimen and cycles, energy of share mixing, concentration and sequence of addition of active substances to the system, pH of the system and other. 0.2-0.3 gram of Preparation N1 ointment, which in addition to the mentioned above components contained a penetration enhancer, was applied to the wart and surrounding skin (diameter of application ~2.5-3.0 cm²) by means of a Q-tip for 15 days. The dosage and the duration of exposition of the ointment were calculated due to degree of absorption of active

ingredients through the epidermal and dermal layers of the skin and reach of the concentration providing the optimal anti-viral effect. The effect of Preparation N1 ointment was evaluated according to the following criteria: - "Complete Effect" when the complete disappearance of the warts was achieved. - "Partial Effect" when complete resolution of the warts was not achieved but the significant reduction of their size was observed. The percentage of the reduction was registered at the end of day 15 of the treatment. - "No Effect" when the condition of the existed wart was not changed in comparison to their initial status. Preparation N2 - a multi-component formula that contained a proprietary complex of halogenated and polymerized carboxylic acids and certain salts of microelements incorporated into the primary liquid delivery system. Mechanism of action of Preparation N2 is based largely on oxidation and certain other chemical reactions of carboxylic acids and their intermediate reduction products used in balanced ratios in relatively low concentrations. Preparation N2 shows more rapid and effective destruction of skin lesion to which it is applied in the form of in-vivo fixation with the basic architecture of the lesion preserved rather than dissolution of the hydrolysis of protein peptide bonds. This fact may contribute to the lesser damage of surrounding normal skin tissue because its aggressive potential is more effectively neutralized or its penetration into surrounding normal tissue is more effectively blocked. Preparation N2 was used only in case of "Partial Effect" and/or "No Effect" of previous treatment of warts with Preparation 1. The area of the wart and surrounding skin was cleaned and degreased with alcohol. A small amount of Vaseline was applied to the skin around the wart to protect the skin from possible destructive effect of the treatment composition. Preparation #2 was carefully applied strictly to the wart by means of special 0.8 mm or 0.5 mm (depending on the size of the wart) microhematocrit capillary glass applicator. The surface of treated wart was moistened. The number of applications, the time and intensity of subsequent skin reactions (discoloration of the wart, redness of surrounding skin, burning sensation) depended on the type, size and pigmentation of the wart. On average about 0.025-0.05 ml of Preparation N2 was required per wart. No more than 5-6 warts were treated at one time and the total area of the procedure was not more than 4.0-5.0 square cm. The warts intended for treatment and the surrounding skin were carefully assessed before the procedure by the following parameters: Assessment of the wart: a) Exact location and amount of skin viral warts b) Size of each wart c) Condition of each wart: - integrity of the wart (cracks, scratches, calluses etc.) - existence of inflammation (redness) - existence of hemorrhages - maceration or flakiness in wart - existence of pigmentation - pain or excessive sensitivity of the wart Assessment of surrounding skin: - integrity of the surrounding skin (cracks, scratches, calluses etc.) - existence of inflammation (redness) - existence of hemorrhages - skin irritation - existence of skin dyspigmentation Each wart was clearly plotted on the separate insertion in patient's chart. Signed agreement of the patient willing to receive the procedure was obtained before the procedure was started. In addition the local temperature measurements were taken for all patients who received treatment with Preparation N2. The Amprobe TMD 90A digital thermometer was used. The measurements were taken at the wart itself, at the area of visually determined skin reaction (redness) around 3-4 cm from the area of the wart, and the intact skin at 6-7 cm from the area of the wart (see diagram 1) and analyzed by the following criteria (Table2):

Results and Discussion: The results of treatment with Preparation #1 are shown in Table 2. Table 2. Correlation between treatment results with Preparation #1 and size of warts T-1 T-2 T-3 Diagram 1. Temperature measurements As is shown in Table 2 the "Complete Effect" was achieved in 99 (40.57%) of warts. It should be noted that the vast majority of completely disappeared warts (64) had the size less than 1.0 mm, existed not longer than 6 months and did not have rough keratinized surface (Picture 1 and Case Study). Picture 1. In 135 (55.33%) warts with the "Partial Effect", the reduction of their size was achieved. The degree of wart size reduction is shown in Table 3. Table 3. Degree of wart size reduction in Preparation #1 treatment The size of 61 (45.18%) of warts was reduced more than twice and up to 2/3 from their initial size. In 47 (34.81%) warts the reduction of their size was from 1/4 to the half of their initial size. In 27 (20.01%) warts the reduction of their size was about 1/4 of their initial size. It should be noted that warts with keratinized surface responded less effectively to the treatment, probably due to difficulties to penetration of anti-viral active ingredients. Case Study1. Patient N, 32 year-old man with three warts at the area of the right forearm. Sizes of warts: up to 1.0 mm (one) and up to 2.0 mm (two). Preparation #1 was applied three times a day during 2 weeks. At the end of day10 the sizes of warts decreased up to 60-65%. At the end of day 15 the surface of patients skin was completely cleared from

existed warts. 135 patients from category “Partial Effect” and 10 patients from category ‘No Effect’ continued the next step of treatment with Preparation #2. The dynamics of local changes after application of Preparation #2 is shown in series of pictures bellow. Initially. In 3 min after first application In 8 min after first application Exact location and amount of skin viral warts Frown Area - 1 Size of each wart 5x5 mm Color Change in Wart Area whitish gray Integrity of the wart (cracks, scratches, calluses etc.) none Existence of inflammation (redness) none Existence of hemorrhages none Maceration or flakiness in wart none Pain or excessive sensitivity of the wart none Integrity of the surrounding skin (cracks, scratches, calluses etc.) none Existence of inflammation (redness) Skin Redness Existence of hemorrhages none Existence of skin dyspigmentation none Follow-Up Assessment of the Wart: Initial Assessment of Surrounding Skin: Initially In 3 min In 8 min ASSESSMENT OF THE WART Amount and location of skin warts 1 at Frown Size of each wart 5x5 Color of the wart and its change after procedure skin color Integrity of the wart (cracks, scratches, calluses etc.) none Existence of inflammation (redness) none Existence of hemorrhages none Existence of pigmentation none Pain or excessive sensitivity of the wart none ASSESSMENT OF THE SURROUNDING SKIN Integrity of surrounding skin (cracks, scratches, calluses etc.) none Existence of inflammation (redness) none Existence of hemorrhages none Existence of pigmentation none ASSESSMENT OF THE WART Amount and location of skin warts 1 at Frown Size of each wart 5x5 Color of the wart and its change after procedure white Integrity of the wart (cracks, scratches, calluses etc.) none Existence of inflammation (redness) none Existence of hemorrhages none Existence of pigmentation none Pain or excessive sensitivity of the wart none ASSESSMENT OF THE SURROUNDING SKIN Integrity of surrounding skin (cracks, scratches, calluses etc.) none Existence of inflammation (redness) perifocal Existence of hemorrhages none Existence of pigmentation none ASSESSMENT OF THE WART Amount and location of skin warts 1 at Frown Size of each wart 5x5 Color of the wart and its change after procedure white-gray Integrity of the wart (cracks, scratches, calluses etc.) none Existence of inflammation (redness) none Existence of hemorrhages none Existence of pigmentation none Pain or excessive sensitivity of the wart none ASSESSMENT OF THE SURROUNDING SKIN Integrity of surrounding skin (cracks, scratches, calluses etc.) none Existence of inflammation (redness) perifocal Existence of hemorrhages none Existence of pigmentation none In 15 min after first application Exact location and amount of skin viral warts Frown Area - 1 Size of each wart 5x5 mm Color Change in Wart Area whitish gray Integrity of the wart (cracks, scratches, calluses etc.) none Existence of inflammation (redness) none Existence of hemorrhages none Maceration or flakiness in wart none Pain or excessive sensitivity of the wart none Integrity of the surrounding skin (cracks, scratches, calluses etc.) none Existence of inflammation (redness) Skin Redness Existence of hemorrhages none Existence of skin dyspigmentation none Follow-Up Assessment of the Wart: Initial Assessment of Surrounding Skin: In 4 days after first application Exact location and amount of skin viral warts Frown Area - 1 Size of each wart 5x5 mm Color Change in Wart Area brown Integrity of the wart (cracks, scratches, calluses etc.) scab Existence of inflammation (redness) perifocal Existence of hemorrhages none Maceration or flakiness in wart none Pain or excessive sensitivity of the wart none Integrity of the surrounding skin (cracks, scratches, calluses etc.) none Existence of inflammation (redness) Skin Redness Existence of hemorrhages none Existence of skin dyspigmentation none Follow-Up Assessment of the Wart: Initial Assessment of Surrounding Skin: In 6 days after first application Exact location and amount of skin viral warts Frown Area - 1 Size of each wart 5x5 mm Color Change in Wart Area pink Integrity of the wart (cracks, scratches, calluses etc.) none Existence of inflammation (redness) none Existence of hemorrhages none Maceration or flakiness in wart none Pain or excessive sensitivity of the wart none Integrity of the surrounding skin (cracks, scratches, calluses etc.) none Existence of inflammation (redness) none Existence of hemorrhages none Existence of skin dyspigmentation none Follow-Up Assessment of the Wart: Initial Assessment of Surrounding Skin: In 15 min In 8 hours In 6 days ASSESSMENT OF THE WART Amount and location of skin warts 1 at Frown Size of each wart 5x5 Color of the wart and its change after procedure gray Integrity of the wart (cracks, scratches, calluses etc.) none Existence of inflammation (redness) none Existence of hemorrhages none Existence of pigmentation none Pain or excessive sensitivity of the wart none ASSESSMENT OF THE SURROUNDING SKIN Integrity of surrounding skin (cracks, scratches, calluses etc.) none Existence of inflammation (redness) perifocal Existence of hemorrhages none Existence of pigmentation none ASSESSMENT OF THE WART Amount and location of skin warts 1 at Frown Size of each wart 5x5 Color of the wart and its change after procedure brown Integrity of the wart (cracks, scratches, calluses

etc.) none Existence of inflammation (redness) none Existence of hemorrhages none Existence of pigmentation none Pain or excessive sensitivity of the wart none ASSESSMENT OF THE SURROUNDING SKIN Integrity of surrounding skin (cracks, scratches, calluses etc.) none Existence of inflammation (redness) perifocal Existence of hemorrhages none Existence of pigmentation none ASSESSMENT OF THE WART Amount and location of skin warts 1 at Frown Size of each wart 5x5 Color of the wart and its change after procedure pink Integrity of the wart (cracks, scratches, calluses etc.) none Existence of inflammation (redness) none Existence of hemorrhages none Existence of pigmentation none Pain or excessive sensitivity of the wart none ASSESSMENT OF THE SURROUNDING SKIN Integrity of surrounding skin (cracks, scratches, calluses etc.) none Existence of inflammation (redness) pink Existence of hemorrhages none Existence of pigmentation none In all cases the complete resolution of the existed warts was achieved. In procedures like this one customer satisfaction greatly depends on two issues: final effect (wart resolution which was achieved in 100%) and time of mummified scab shedding. Day of mummified scab shedding is shown in Table 4 and Diagram 2. Table 4. Correlation between day of scab shedding and size of warts In 8 days after first application Exact location and amount of skin viral warts Frown Area - 1 Size of each wart 5x5 mm Color Change in Wart Area pink Integrity of the wart (cracks, scratches, calluses etc.) none Existence of inflammation (redness) none Existence of hemorrhages none Maceration or flakiness in wart none Pain or excessive sensitivity of the wart none Integrity of the surrounding skin (cracks, scratches, calluses etc.) none Existence of inflammation (redness) none Existence of hemorrhages none Existence of skin dyspigmentation none Follow-Up Assessment of the Wart: Initial Assessment of Surrounding Skin: In 8 days In 14 days ASSESSMENT OF THE WART Amount and location of skin warts 1 at Frown Size of each wart 5x5 Color of the wart and its change after procedure pink Integrity of the wart (cracks, scratches, calluses etc.) none Existence of inflammation (redness) none Existence of hemorrhages none Existence of pigmentation none Pain or excessive sensitivity of the wart none ASSESSMENT OF THE SURROUNDING SKIN Integrity of surrounding skin (cracks, scratches, calluses etc.) none Existence of inflammation (redness) none Existence of hemorrhages none Existence of pigmentation none ASSESSMENT OF THE WART Amount and location of skin warts 1 at Frown Size of each wart 5x5 Color of the wart and its change after procedure skin color Integrity of the wart (cracks, scratches, calluses etc.) none Existence of inflammation (redness) none Existence of hemorrhages none Existence of pigmentation none Pain or excessive sensitivity of the wart none ASSESSMENT OF THE SURROUNDING SKIN Integrity of surrounding skin (cracks, scratches, calluses etc.) none Existence of inflammation (redness) none Existence of hemorrhages none Existence of pigmentation none Diagram 2. Percentage of warts shed by days As can be calculated from the Table 4, 43.45% of warts shed on day 4. All of them had the size not more than 3.0 mm. 28.96% of warts shed on day 5. Their size also mainly did not excide 3.0 mm. Thus 72.41% of warts with the size not more than 3.0 mm shed in 4-5 days after the procedure. 27.59% of warts with size more than 3.0 mm and up to 5.0 mm shed on days 6 -7-8 after the procedure. Dynamics of local temperature measurements at the area of intervention are shown in Table 5. Table 5. Dynamics of Temperature Measurements The temperature measurements shown in the Table 5 reflect and correlate with the pathophysiological changes occurring in the area of the intervention. In particular the value of T1 reflects vasoconstricting reaction in the wart area developing in several minutes after application Percentage of warts shed by days 0 5 10 15 20 25 30 35 40 45 50 4 5 6 7 8 Total Day of Scab Shedding Percent Size of the Wart more than 1.0-2.0 mm Size of the Wart more than 2.0-3.0 mm Size of the Wart more than 3.0-4.0 mm Size of the Wart more than 4.0-5.0 mm of Preparation #2. The value T2 indicates the development perifocal aseptic inflammatory reaction. Dynamics of temperature indicators reflect the dynamics of the healing process (Diagram 3). Diagram 3. Dynamics of temperature indicators of the healing process Post-procedural complications such as pain, infection of the area of intervention, keloid scars were not noted. Most of the patients were sympathetic to the two-step (Preparation #1 and Preparation #2) treatment. According to their statement "beauty and health require some sacrifice". -3 -2 -1 0 1 2 3 Initially In 3 min after treatment application In 6 min after treatment application In 12 min after treatment application In 15 min after treatment application In 30 min after treatment application In 60 min after treatment application In 1 day after treatment application In 3 days after treatment application In 6 days after treatment application In 9 daysafter treatmentapplication T - 1 T - 2 T - 3 Case Study 2. Patient T, 37 year-old man with two warts at forehead area of. Sizes of warts: 5 and 6 mm. Preparation #2 was applied once by means of capillary

applicator. At the end of day 3 both warts became mummified and on day 8 the surface of patients skin was completely cleared from existed warts. Case Study 3. Patient K, 29 year-old women with a wart at chin area (initial picture is missing). Size of wart: 10 mm. Preparation #2 was applied by alternating two cycles with 5 min intervals. In 5 min the wart became whitish-gray (picture 1). At day 3 the wart became mummified (picture 2) and on day 6 the wart was almost ready to shed (picture 3). On day 9 the mummified ward shed out. Picture 4 shows the patient's skin in three weeks.

Conclusion: In general the proposed two-step method is characterized as follows: 1. 100% efficiency 2. Simplicity and economical attractiveness 3. The absence of side effects and complications 4. The virtual absence of recurrences 5. The absence of the formation of keloid scars 6. The relative cheapness and high revenue 7. No need for expensive facility set up. The treatment can be performed in medical office as well as in beauty parlor 8. No need to purchase expensive equipment 9. The relatively short duration of the procedure and the high rotation of patients (in one business day, you can treat 25-30 and more patients) 10. The stability and reproducibility of the preparations used 11. The mobility of the service and the possibility of creating a network of offices employing this technique 12. The patient feels no discomfort and in 2-3 hours after the procedure can follow the common daily regime (take a shower, use makeup, continue the usual diet, etc.).

Pic. 1 - In 5 min Pic. 2 - In 3 days days Pic. 3 - In 6 days days Pic. 4 - In 3 weeks days

Referensec:

1. Gibbs, S and others; BMJ2002;325:461
2. Sterling, JC and others;Br.JDermatol.2001;144:4-11
3. Stulberg, DL and others; Am.Fam.Physician 2003; 67:1233-1240

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“TREATWART”--კანის ვირუსული წარმონაქმნების ახალი სამკურნალო საშუალება

მოტანილია ახალი საშუალება კანის ვირუსული წარმონაქმნების სამკურნალოდ. ეს უკანასკნელი შესაძლოა გამოყენებული იქნას, რადგანაც მსგავს გართულებებს კრიტიკულ ავადმყოფებშიც საკმაოდ ხშირად ააქვს ადგილი.