Original Article

The efficacy of podophylin 20% and thricholoroacetic acid %30 in the treatment of genital wart

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Abstract

Background: Several regimens of therapy were recommended for the treatment of genital wart with different efficacies. The purpose of this study was to compare the efficacy of podophylin 20% versus trichloroacetic acid 30% in the treatment of genital wart.

Methods: This randomized clinical study was conducted on 120 cases with genital wart. They randomly received podophylin 20% or trichloroacetic acid 30%. All cases were followed up for 6 months. The efficacy of both regimens of therapy was compared.

Results: Among the 60 cases who were treated by podophylin, 56 cases (93.3%) were completely treated. From the 60 cases treated by thricholoracetic, 56 (93.3%) cases were completely treated (p>0.05).

Conclusion: The results show that the efficacy of both regimens of therapy are equal.

Key words: Condyloma accuminata, Podophylin, Trichloroacetic acid, Treatment

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Human papilloma viruses invade squamous epithelium and at least 150 types were recognized (1-4). Wart is seen in different areas of skin and mucosal surface, genitalia,oral cavity and larynx (5,6). Contamination with special types of viruses leads to anogenital and orogenital lesions (7-9). Genital tract infections in 70% is subclinical and confirmed by physical examination,histology and specific laboratory tests. The mean age of female patients is 25 years old. The disease frequency has increased recently (9-10). The risk factors of genital warts include multiple sexual partners, sexual partner contamination, autoinoculation, long term use of oral contraceptive pills, alcohol consumption, smoking and immunosuppression (11, 12). The genital warts in women tend to occur in areas most directly affected by coitus such as the posterior fourchette and lateral areas on the vulva (2). The duration of the lesions varies between several weeks to years. The recurrence rate is 25% and is reported to last for 2 months to 23 years after treatment (3,9). Misdiagnosis based on clinical manifestation is 10% and important differential diagnosis includes bowenoid papulosis, seborrheic keratosis, navei, condyloma lata, mulloscum contagiosum, squamous cell carcinoma and malignant melanoma (1,2). There are several protocols for treatment of warts in external genitalia and perianal areas (trichloroaceticacid, podophylox, podophyllin, imiqimod, 5-fluorouracil, cidofovir, cryotherapy, cutterization, laser, surgery and interferon) (13-31). Topical therapy with podophyllin 20% and trichloroacetic acid 30% are two common treatment modalities with good results (11,13-18,21).

Mechanism of trichloroacetic acid is protein coagulation,and due to high dry concentration and deep coagulation severe warts destruction occurred. Podophyllin has high antimitotic activity, but it is teratogen. Due to high vascularity of warts in pregnancy the use of this drug is forbidden in pregnant women (13). Contact dermatitis and ulceration after podophillin use is more common, and this drug is more expensive than tricholoroacetic acid. This study can help to choose the best drug for patients by paying attention to its complications and economical problems.

Methods

From June 2005 to June 2008, the outpatient genital wart cases who attended at the dermatology clinic were entered into the study. The diagnosis of genital wart was performed through a clinical examination of the lesions. Inclusion criteria were all cases with genital warts without pregnancy. The patients randomly were divided into two groups. The first group received 20% podophylin while the second group received 30% tricholoroacetic acid.

After the treatment, all cases were followed up in 6 months. For the selection of the patients in each arm, we prepared 120 cards and wrote the regimen podophylin (60 cards) and regimen trichloroactic acid (60 cards) on it. For every patient, a card was drawn and the regimen therapy noted on it was administered. Trichloroacetic 30% was used on the patients with topical cotton soap every other day and was washed after one minute of application.

Podophylin (20%) was applied on the affected area topically twice a week and was washed after 20 minutes of application. The variables like age, marital status, history of with sexual partner, and VDRL were noted. After the treatment, all cases were followed in 1 month, 2 month and 6 months. The data were recorded. The Ethics committee approved the study. All the patients gave their informed consent. The data were analyzed with SPSS version 11. The outcome of treatment in both groups was compared using t-test fisher exact test and chi-square test.

Results

In all patients, VDRL test was negative. The mean age of the patients treated with podophylin was 32±17 and trichloroacetic acid was 31.8±16.2 years (table 1). There were no significant differences regarding the number of lesions, residential places in these two treated groups. Not one of our patients interrupted therapy due to complications. Burning sensation was the major complication in 35 patients after podophylin use and in 28 patients with trichloroacetic acid. The response to treatment in two groups was 93.3%. Recurrence after treatment with podophylin was seen in 4 patients three months later.

Table 1. Characteristics of the patient and response to treatment

variabl	Podophyllin (n=60)	Thrichoporoacetic (n=60)
Mean age±SD	32±17	31.8±16.2
Urban resident	22(36.7)	27(45)
Multiple lesions	42(70%)	45(75%)
Completely treated	56(93.3)	56(93.3)

Discussion

In our study, we had 93.3% complete resolution in two groups. The selection of treatment protocols in genital warts is related to the site of lesions, disease manifestation (clinical, subclinical) and disease spread (27,28). The variety of treatment results are related to the type of HPV, drug compositions, geographical, environmental, economical and intellectual factors.

Studies in treatments with podophylin by Douglas et al. and Potkal et al. and international research group for condyloma showed that the rate of resolution was very different and were reported to be between 22 to 79% (28-31). The center of disease control in 1993 reported that the primary treatment rate of genital warts by podophylin was 22% to 77% (28). The center of disease control in one clinical trial study reported 80% success rate in the treatment of male genital warts with tricholoroacetic acid (28). In our study the success rate was 93.3% in women's genital warts.

In previous studies, recurrence rate was 11% to 74% by podophylin and 36%by tricholoroacetic acid in male genital wart treatment (13-16,28-31). But in our study, this recurrence among women was only 6.6%. Performet in the two studies pointed podophylin and trichloroacetic acid as the first line of treatment of genital warts (13, 21). Podophyllin therapy is prohibited in pregnant women and mucosal surface (28).

On the whole the same results occurred in two groups, after the treatment with podophylin there is a high risk of developing contact dermatitis. Trichloroacetic acid is the best drug for starting genital wart treatment.

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