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Research Article

**PALMOPLANTAR WARTS: ROLE OF POTASSIUM
HYDROXIDE**

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Abstract:

Objective; Determination of role of 10% Potassium Hydroxide (topical) for palmo-plantar warts.

Methodology: This was a cross sectional study that was conducted at PIMS hospital, Islamabad during January 2019 to June 2019. In this study the cases of age up to 20 years irrespective of their gender, those were suffering from warts either at palm or the plantar side were included. The warts were diagnosed on the basis of hard, raised lesions in all their types except for resistant fili form lesions. The cases hypersensitive to any of these drugs were excluded. The drug was applied weekly topically and were assessed after 1 month of the treatment and total treatment also comprised 4 weeks. Total absence of the lesions was labelled as efficacious.

Results: In the present study 100 cases of warts were selection. The mean age of the patients was 10.57±2.37 years. There were 54% males and 46% females. Out of 100, 66% had palmar warts and 23% had single lesion. Efficacy was seen in 82 (82%) out of 100 cases. there was no significant difference in terms of site of lesion and number of lesions with respect to efficacy with p values of 1.0 and 0.95. **Conclusion;** 10% KOH is highly efficacious in its topical form and this is seen in 8 out of 10 cases. It has no association with any of the confounder of the study.

Key words. Potassium hydroxide, 10%, Warts

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INTRODUCTION:

Viral infections can lead to a number of complications in the body, especially the skin surfaces. Warts are amongst those common entities that can be highly symptomatic; though not morbid. Pain, cosmetic disfigurement, itching and just a subjective issue, all can lead to the intention of the treatment. Self disappearance or auto healing is also an option, but takes a long time and happens in months, so active management is usually desired.¹⁻²

Human papilloma virus (HPV) is the organism that can result to warts and skin and oro-genital organs the most common involvement sites. It has multiple types and HPV 6 and 11 are the most concerning. Warts can be classified into flat warts, palmo-plantar warts, common warts, genital warts, filiform warts, and peri-ungal warts according to their morphological classificaitons.³⁻⁴

Active management usually is done in the form of either cryotherapy or drugs which are usually applied topically and in the past has shown various degree of efficacies. The most commonly used drugs were salicylic acid, imiquimod, duct tape, liquid nitrogen, cidofovir, cantharidin, bi and tri chloracetic acid (TCA) tretinoin, potassium hydroxide (KOH) and cauterization etc.⁴⁻⁶ The most prevalence data was regarding the Salicylic acid, but efficacy had variable results and few of the side effects was the concern that led to the search of the newer agents with better safety profile and efficacy rate.⁷⁻⁸

OBJECTIVE:

Determination of role of 10% Potassium Hydroxide (topical) for palmo-plantar warts.

MATERIAL AND METHODS:

This was a cross sectional study that was conducted at PIMS hospital, Islamabad during January 2019 to June 2019. In this study the cases of age up to 20 years irrespective of their gender, those were suffering from warts either at palm or the plantar side were included. The warts were diagnosed on the basis of hard, raised lesions in all their types except for resistant fili form lesions. The cases hypersensitive to any of these drugs were excluded. The drug was applied weekly topically and were assessed after 1 month of the treatment and total treatment also comprised 4 weeks. Total absence of the lesions was labelled as efficacious.

Statistical analysis:

The data was processed by SPSS version 23.0. Chi-square test was used for data stratification and analysis and Post stratification p-value ≤ 0.05 as significant.

RESULTS:

In the present study 100 cases of warts were selection. The mean age of the patients was 10.57 ± 2.37 years. There were 54% males and 46% females. Out of 100, 66% had palmar warts and 23% had single lesion as in table1. Efficacy was seen in 82 (82%) out of 100 cases. there was no significant difference in terms of site of lesion and number of lesions with respect to efficacy with p values of 1.0 and 0.95 as shown in tables 2 and 3.

Table 01. Demographics. (N= 100)

VARIABLES	Numbers	%
Males	54	54
Females	46	46
Solitary lesion	23	23
> 1 lesions	77	77
Palm	66	66
Plantar	34	34

TABLE NO. 02. Efficacy and site

Site	EFFICACY		Total
	Yes	No	
Palm	54 (81.82%)	12 (18.18%)	66 (100%)
Plantar	28 (82.35%)	6 (17.65%)	34 (100%)
Total	82 (82%)	18 (18%)	100 (100%)

p= 1.0

TABLE NO. 03. EFFICACY AND NUMBER OF LESIONS (n= 100)

Number of lesions	EFFICACY		Total
	Yes	No	
Solitary	19 (82.61%)	4 (17.39%)	23 (100%)
>1	63 (81.82%)	14 (18.18%)	77 (100%)
Total	82 (82%)	18 (18%)	100 (100%)

P= 0.95

DISCUSSION;

Human papillomaviruses (HPV) can infect human beings in various forms and the most common concerns are warts that can be present either trans dermally or at the orogential sites. Despite presence of auto healing, active management is warranted due to cosmetic disfigurement and occasionally pain.

In the present study, efficacy was seen in 82 (82%) out of 100 cases suffering from palmo plantar warts. These results were in line with the findings of the previous studies where almost similar results were noted but with slight higher efficacy rates. According to a study done by Al-Hamdi KI et al efficacy was seen in nearly 100% of the cases.⁹ But this difference was attributed to the difference in the operational definitions as the reduction in size was also labelled as efficacy in their study which complete absence was the criteria in the present study. Even then in their study, total recovery was noted in 82.1% of cases, and was as was in the present study (82%).⁹

Seo SH et al, conducted a similar study, but they carried out a randomized controlled trial to compared KOH to Imiquimod and efficacies were seen as 77% with KOH vs 57% with latter one.¹⁰ In an Indian study the efficacy was as low as in 8 (42.1%) of cases

in their study. But they also included the cases of filiform warts which are resistant to treat and were excluded from the present study.¹¹

In the present study, there was no significant difference in terms of the confounding variables like size of lesion and site of lesion. There were mixed results regarding their efficacies in such circumstances and slightly better efficacies were noted in cases that had either single lesion or lesser number of lesions and also the cases that had earlier presentation of the disease; though they also did not find any significant difference in both groups ($= > 0.05$).¹²⁻¹³ In

CONCLUSION:

10% KOH is highly efficacious in its topical form and this is seen in 8 out of 10 cases. It has no association with any of the confounder of the study.

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