

Early Treatment with Imiquimod 5% Cream of Periungual Warts in Vietnam: The Poorer, the Better

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Abstract

AIM: To evaluate the efficacy of imiquimod 5% in periungual wart treatment.

MATERIAL AND METHODS: A group of 40 patients were recruited to apply imiquimod 5% cream once daily for 5 consecutive days per week in 8 weeks. They were classified into 3 levels: Mild (the total lesion area $\leq 25 \text{ mm}^2$), moderate ($25 \text{ mm}^2 < \text{total lesion area} \leq 50 \text{ mm}^2$), severe (total lesion area $> 50 \text{ mm}^2$). The outcome was evaluated at the 4th and the 8th week. The result was graded as excellent (complete clearance), good ($\geq 50\%$ clearance) and poor ($< 50\%$ clearance).

RESULTS: The total area of the wart lesion got decreased significantly from the beginning to the 4th and the 8th week (36.7 mm^2 vs 16.8 mm^2 , $p = 0.0001$ and 16.8 mm^2 vs 8.8 mm^2 , $p = 0.01$). The complete clearance rate at the 4th week was lower than that at the 8th week significantly (22.5% vs 72.5% , $p = 0.04$). The clearance rate of patients suffering severe warts was lower significantly than that of mild/moderate patients (82.8% vs 45.5% , $p = 0.03$). The duration of the disease in people who responded completely to imiquimod was shorter than that of patients partially responded (10.2 ± 14.1 months vs 22.3 ± 14.3 months, $p = 0.02$). Adverse effects were not common, mild and local only. Recurrence rate after 6 months of follow up was 3.5%.

CONCLUSION: In conclusion, Imiquimod 5% cream is a safe and effective drug in the treatment of periungual warts.

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Introduction

Periungual warts a common skin disease and can interfere with nails development, mainly in immunosuppressed patients [1], [2].

Tissue destruction therapy is painful, and the recurrence is frequent. Imiquimod is a topical immunosuppressive agent, which stimulates the production of inflammatory cytokines that activate and maintain cell-mediated immune response [3].

This study aimed to evaluate the efficacy of imiquimod 5%, once daily for 5 consecutive days per week, in periungual wart treatment in 40 Vietnamese patients, including 19 females (aged 20.4 ± 13.8) and 21 males (aged 27.3 ± 13.5) patients.

Material and Methods

A group of 40 patients were recruited to apply imiquimod 5% cream once daily for 5 consecutive days per week in 8 weeks. They were classified into 3 levels: Mild (the total lesion area $\leq 25 \text{ mm}^2$), moderate ($25 \text{ mm}^2 < \text{total lesion area} \leq 50 \text{ mm}^2$), severe (total lesion area $> 50 \text{ mm}^2$).

The outcome was evaluated at the 4th and the 8th week.

The result was graded as excellent (complete clearance), good ($\geq 50\%$ clearance) and poor ($< 50\%$ clearance).

Results

The warts condition before the treatment was mild in 21 patients (52.5%) (the total lesion area $\leq 25 \text{ mm}^2$), moderate in 8 patients (20.0%) ($25 \text{ mm}^2 < \text{total lesion area} \leq 50 \text{ mm}^2$) and severe in 11 patients (27.5%) (total lesion area $> 50 \text{ mm}^2$). The duration of disease was 13.5 ± 15.0 months.

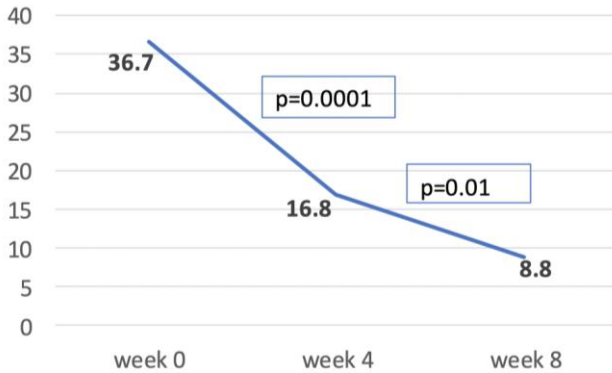


Figure 1: Wart area (in mm²) change by the time

The total area of warts got decreased significantly from 36.7 mm^2 at week 0 to 16.8 mm^2 at the 4th week and 8.8 mm^2 at the 8th week ($p < 0.05$) as shown in Figure 1. The excellent outcome at the 8th week was higher than that at the week 4th significantly (72.5% vs 22.5%, $p = 0.04$). The complete clearing rate at the 8th week was significantly higher than that at the 4th week due to the slow effect of imiquimod in stimulating immune cells.

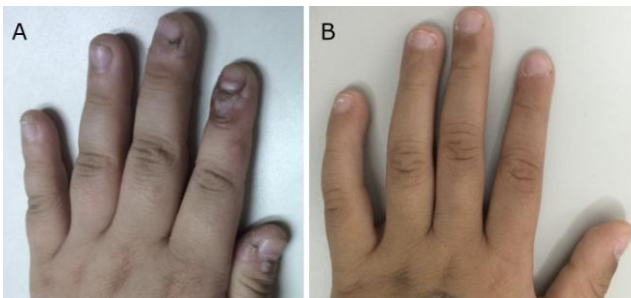


Figure 2: Periungual warts before (A) and after (B) treatment with imiquimod 5% cream

An excellent outcome was seen in 68.2% of people who had got treated by other modalities before applying imiquimod and 77.8% of naïve patients, the difference was not significant ($p = 0.37$, Fisher exact test) (Table 1).

Table 1: Treatment outcomes and related factors

| Outcomes | N | Wart duration (m ± SD) | P | Wart severity at the beginning | | | | P | Treatment before imiquimod | | | | P |
|-----------|----|------------------------|------|--------------------------------|------|---------------|------|------|----------------------------|------|----|------|-------|
| | | | | Severe | | Mild/moderate | | | Yes | | No | | |
| | | | | N | % | N | % | | N | % | N | % | |
| Excellent | 29 | 10.2 ± 14.1 | 0.02 | 5 | 45.5 | 24 | 82.8 | 0.03 | 15 | 68.2 | 14 | 77.8 | 0.37* |
| Good/poor | 11 | 22.3 ± 14.3 | | 6 | 54.5 | 5 | 17.2 | | 7 | 31.8 | 4 | 22.2 | |

*: Fisher's exact test.

No systemic side effects have been reported. Local side effects had been seen in 37.5% patients, but 73.33% of the side effect was mild.

After 6 months of follow-up, there was only one relapse case (3.5%) after 3 months.

Discussion

Excellent results in a group of patients suffering mild/moderate wart were higher than that of the group having severe wart (82.8% vs 45.5%, $p = 0.03$). So longer the duration of disease was, the less effective the treatment modality was [4], [5], [6].

There was only one relapse case after 3 months. It could be explained by the ability of imiquimod cream that can start and maintain HPV specific cell-mediated immunity [7], [8], [9], [10].

In conclusions, Imiquimod 5% cream is safe and effective drug in the treatment of periungual warts. Early treatment leads to better results.

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