

## TREATMENT OF WARTS - A STUDY OF ONE HUNDRED AND SIX CASES

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One hundred and six cases comprising different types of warts were included in the study. The types of treatment tried were topical, systemic and physical. Podophyllin 25% in tincture benzoin co was very effective for genital warts, while electrocautery was successful in 87% cases of common warts. Systemic medication such as levamisole and thuja-200 did not give satisfactory results.

**Key words :** Warts, Podophyllin, Electrocautery, Levamisole, Thuja.

There is no specific treatment for warts and many of the methods employed are relative and even totally ineffective.<sup>1</sup> Results obtained by one author using a particular method of treatment do not always hold good for another who tries the same method.<sup>2</sup> Rulison<sup>2</sup> and Massing and Epstein<sup>3</sup> have observed that a majority of warts undergo spontaneous involution within a period of two years. In view of the wide disparity of opinions with regard to the treatment of warts, this study was undertaken to assess the effectiveness of some of the modalities of treatment available in our hospital.

### Materials and Methods

One hundred and six cases of warts were included in the study. Pregnant women with genital warts were excluded from the study. The diagnosis was made on the basis of clinical morphology. The cases were divided into three groups. Each group comprised of patients from both sexes and different age groups having various types of warts. The age of the patients ranged from 7 to 55 years and the duration of warts varied from 15 days to 8 years.

Group I consisted of 33 patients, common warts (3), digitate warts (5), filiform warts (5), flat wart (1), plantar warts (4) and genital warts (15). Of these, 6 cases of digitate variety, 5

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of filiform type situated over the scalp, face and neck regions and 3 of the common type situated over the palms and palmar aspects of the fingers were treated with local applications of concentrated solution (100%) of trichloroacetic acid. The chemical was applied after protecting the normal surrounding skin with vaseline. Applications were repeated at intervals of 4 days. Four cases of plantar warts received topical applications of 40% salicylic acid under occlusion repeated every 3rd day for one month. Podophyllin 25% in tincture benzoin co was used for 15 cases of genital warts. It was applied twice a week with instructions to wash away the chemical 3 hours after the application. One case of plane wart was treated with topical retinoic acid twice daily for one month.

Group II consisted of 35 cases of multiple warts who were put on oral therapy. Levamisole HCl was given to 19 patients in a dose of 50-150 mg, depending upon the age, for three consecutive days every two weeks for two months. Similarly, Thuja-200, a homeopathic drug, was given in 16 cases. The dose prescribed was 10 drops of the liquid preparation or equal number of pellets thrice daily for one month.

In group III comprising of 36 patients, electrocautery was performed under local anaesthesia in 31 cases of common warts. In cases with single or only a few warts, all the lesions were cauterised, while in those with multiple

warts, only a few of the lesions were cauterised and this was supplemented with suggestion therapy. Five cases of plantar warts were excised under local anaesthesia and the base was electro-cauterised.

## Results

Of the 106 cases who were started on various forms of therapy, 15 cases defaulted the treatment. There were two such cases in group I and thirteen in group II. The results of the remaining 91 cases are summarised in table I.

Table I. Response rate with various modes of treatment.

Mode of treatment	Type of warts	Number of cases		Response rate
		Treated	Improved	
<b>Group I</b>				
Trichloroacetic acid solution	Digitate	6	3	42.8%
	Filiform	5	2	
	Common	3	1	
40% salicylic acid	Plantar	4	1	25%
Retinoic acid	Plane	1	0	0%
Podophyllin 25%	Genital	15	14	93.3%
<b>Group II</b>				
Levamisole HCl	Common (Multiple)	12	2	16.6%
Thuja-200	Common (Multiple)	10	2	20%
<b>Group III</b>				
Electro-cautery	Common	31	27	87%
Excision with electro-cautery	Plantar	5	3	60%

## Comments

In group I, of the 14 cases treated with topical application of trichloroacetic acid, only 6 (42.8%) showed improvement. Digitate and filiform warts responded better than the common warts. The poor results could be explained by the limited capacity of the chemical agent to penetrate the thickened stratum corneum. The same could be said of the plantar warts treated with 40% salicylic acid since only 1 of the 4 cases responded to treatment. This is in contrast to 84% cure rate obtained by Bunney et al.<sup>4</sup> Topical retinoic acid showed no response in the only case of flat wart treated, but it is difficult to comment on the true response rate with topical retinoic acid as only one such case was treated. Good results were obtained with 25% podophyllin in tincture benzoin co in (93.3%) cases of genital warts. No side effects were encountered except for one case who developed

contact dermatitis as a result of failure to wash away the chemical agent as had been instructed to him. This favourable response rate is very much in agreement with the claims of Culp and Kaplan (100%)<sup>5</sup> and Weston (90%)<sup>6</sup>. However, some other studies showed a clearance rate of only 22%.<sup>7</sup>

In group II, of the 12 cases who received levamisole, only 2 (16.6%) responded favourably. In one case the warts disappeared after one course and in the second after two courses of levamisole therapy. No side effects were encountered. This response rate is very much less when compared to the results (90%) obtained by Helein and Bergh<sup>8</sup> Moncada and Rodriguez (72.2%)<sup>9</sup> and Bhargava et al (33.3%).<sup>10</sup> Of the 10 cases with multiple warts treated with thuja-200, only two (20%) had improvement. In one case the warts disappeared after 15 days and in another in one month. In contrast,

Sehgal<sup>11</sup> reported a cure rate of 90.5% in a period of 2-4 months treatment. Thuja is widely recognised as an antibacterial agent but its exact mode of action in wart cure is not known.

Electro-cautery performed in 31 cases of common warts in group III gave a response rate of 87%. In 4 cases in whom the warts recurred, the lesions were cauterised again. The only drawback of this form of treatment was scarring. Weston<sup>6</sup> claims a high recurrence rate which has not been a feature in our study. Of the 5 cases of plantar warts who received electro-cauterisation after excision, two had a recurrence. The recurrence in these cases could be due to inadequate destruction or removal of the virus-infected tissue since the same warts did not recur after adequate repeat electro-cauterisation.

Thus, in our study electro-cautery was found to be highly effective for cases with a single or a few lesions of common warts while podophyllin proved to be successful in over 90% of cases of genital warts. The results obtained with other modes of topical and systemic therapy were unsatisfactory.

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