

# ASSESSMENT OF TREATMENT OF PLANTAR WARTS

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THE treatment of plantar warts is occupying an increasing proportion of the time of dermatological externs. In Northern Ireland attendances of patients suffering from plantar warts at dermatological externs increased from 1,081 in 1962 to 1,267 in 1966, a rise of 17.2 per cent.

Many treatments have been used:

1. Thomson (1943) first described the treatment of plantar warts by using 3 per cent formalin – he cured 33 out of 39 patients.
2. Anderson and Shirreffs (1963) treated 192 cases of plantar warts with (a) formalin soaks; (b) plain water; (c) inert tablets by mouth. Over 60 per cent in each of these groups were cured.
3. Vickers (1961) used daily paring with 3 per cent formalin soaks applied for 15 minutes. In a survey of 646 patients, 80 per cent of all plantar warts were cured in six to eight weeks' treatment.
4. Rulison (1942) stated that warts have no specific treatment and also that cure was more probable in single than in multiple warts.
5. Duthie and McCallum (1951) using elastoplast alone cured 60 per cent of their cases. By combining elastoplast and podophyllin they had a higher percentage of cures.
6. Barr and Coles (1965) using (a) Nobecutane D; (b) 3 per cent formaldehyde in Nobecutane; (c) 6 per cent formaldehyde in Nobecutane, cured 47.8 per cent, 55.4 per cent and 58.7 per cent respectively in the three series treated. They eliminated at the first examination all cases in which they considered spontaneous cure would take place.

This paper is an evaluation of treatment of patients with plantar warts seen at the Belfast City Hospital in 1966.

The series can be divided easily into two parts :

- a. Patients referred to the Outpatient Department, Belfast City Hospital, by their own general practitioners.
- b. Patients referred to the Inpatient Department, Belfast City Hospital, by other dermatological externs. These patients were referred because operative removal of the warts under general anaesthesia was considered necessary.

The first series comprise of 130 patients referred to the Outpatient Department, Belfast City Hospital. Of these 130 patients, 17 did not attend at all and a further 22 lapsed after only one or two attendances.

Eighty-three patients were treated by the following regime :

1. 5 per cent formalin to be applied as soaks to the warts for half an hour every evening.
2. The warts to be pared down every three days with a number 3 scalpel and number 15 blade.
3. The area surrounding the warts to be covered with a thin layer of Vaseline.
4. The warts to be kept covered with a wide strip of elastoplast.

The patient and the parents had the treatment carefully explained to them and were given a treatment pro forma. A similar pro forma was sent to their doctor.

All 83 patients were cured, 75 within three months and the others within six months; this represents a cure rate of 100 per cent.

The eight other cases were dealt with as follows—two required no treatment as the warts were dead, one needed general anaesthesia as he was a spastic, and the other five insisted upon surgery under local anaesthesia.

The second series relates to the question of operative removal of plantar warts under general anaesthesia. In removing plantar warts by this method, three factors have to be considered :

1. Is the risk of a general anaesthetic justified to remove plantar warts?
2. Is the result of removal under general anaesthesia better than treatment by more conservative measures?
3. Is the possible production of fairly severe pain for two to three weeks after removal under general anaesthesia better than pain of much less severity over a longer period?

Unfortunately the answer to the third question does not appear in this paper because we did not consider this question in the original pro forma.

When a patient was referred to the City Hospital, for removal of warts under general anaesthesia, the vast majority of them were reviewed by Dr. Jefferson or Dr. Kelly before they were admitted to the hospital, and 97 patients were seen in such a manner. Of these 46 were not admitted and 51 were admitted. Of the 46 patients not admitted, 13 patients did not require treatment as the warts were dead or dying. The remaining 32 patients were discharged on formalin treatment. Of these 25 showed clearance of their warts in three months, five within six months and the remaining two within eight months. Fifty-one patients were admitted and of these 48 had their warts removed under general anaesthesia and three under local anaesthesia. Of these 45 were reviewed after six weeks and showed no recurrence of their warts.

#### DISCUSSION

It is necessary to point out that this assessment of wart treatment was uncontrolled, and that it was not carried out on a double blind basis.

Many forms of treatment have been carried out over the years on plantar warts with as good results as this series and most dermatologists would agree that the results reflect the amount of work and perseverance of the clinicians involved. All that can be said from the first series is that the formalin treatment outlined appeared to give extremely good results. The fact that 100 per cent of these patients were cured would reflect the amount of work and perseverance of the clinicians involved in the proper application of treatment.

The question as to whether general anaesthesia is necessary for removal of plantar warts is answered in the second series. It would appear from these results that the risk of general anaesthesia is not worth taking in that equally good results can be obtained by conservative treatment.

Two other points emerge from this complete series :

1. Out of the 210 patients seen at the hospital, disregarding the first-time non-attenders, 112 were already having or had had formalin treatment and if this

had been adequately carried out, then they would not have required hospital attendance.

2. Out of the 210 patients, 111 considered that they may have received the wart infection at the baths. This is difficult to evaluate in that the question asked was biased.

#### SUMMARY

One hundred per cent (83 patients) of 91 patients referred by their family doctors were cured by formalin treatment. Of the eight patients not so treated, six had operative removal of their warts and in two the warts were dead.

Of 97 cases referred by other hospitals for removal of their warts under general anaesthesia, 46.4 per cent (46 patients) did not require such treatment as the warts were clearing spontaneously in 13.4 per cent (13 patients) or cleared with formalin treatment in 33 per cent (32 patients). Of 51 patients who had operative removal of their warts, 45 were reviewed six weeks after operation and showed no recurrence.

Approximately 50 per cent of patients considered that they had received their infection at the baths.

This series makes it clear that the treatment of choice for plantar warts is formalin treatment. This treatment must be carefully and fully explained to the patients or their parents.

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