
For Debate . . .

Dermatologists should not be concerned in routine treatment of warts

M KEEFE, D C DICK

Argument for the proposition

In many parts of the United Kingdom the workload of hospital dermatology departments is increasing. The number of new referrals to our own department, for example, has increased by 19% in the past five years. Waiting times for outpatient appointments in dermatology are already unacceptably long in some areas and continue to increase. As a result, general practitioners often treat patients without first establishing the correct diagnosis, and thus ineffective, expensive, or potentially toxic medications may be used unnecessarily. Treatment may also partially suppress or modify a disease and make subsequent diagnosis and treatment more difficult.

Viral warts, however, are usually easy to diagnose, and there are simple treatments that are equally suitable for routine use in hospital and in general practice. The basic choice is between cryotherapy and a topical treatment with a paint or paste. Neither of these methods needs a great deal of training or skill or needs to be given specifically by a dermatologist. Despite this, a large proportion of the workload of most dermatology departments comes from the demand for wart treatment, and although in 1966 a leading dermatologist said "the best way of managing warts is to let them manage themselves,"¹ the demand has continued unabated. It has been shown that between 9.2 and 21.7% of new referrals² and as many as a third of return visits³ are for treatment of warts. Warts account for 21% of new referrals to our department and for 19% of the time we spend dealing directly with outpatients.

Department of Dermatology, Falkirk and District Royal Infirmary, Falkirk, FK1 5QE

M KEEFE, MRCP, dermatology registrar
D C DICK, BSC, MRCP, consultant dermatologist

Correspondence to: Dr Keefe.

Patients need to be referred to hospital only if the diagnosis is not clear or if treatment cannot reasonably be given in general practice. The *Morbidity Statistics from General Practice* for 1981-2, however, showed that 8.4% of patients who consulted their general practitioners for warts were referred to hospital.⁴ This is a higher proportion than for acne, dermatitis, psoriasis, urticaria, or indeed all skin conditions apart from benign and malignant neoplasms of the skin. The proportion of patients with warts who are referred to hospital may vary from one area to another and may be as high as 50% in some areas.² Many dermatologists believe that it is unnecessary for them to see patients with warts, either for diagnosis or for treatment, and that their time is better spent dealing with other problems. This is explicitly shown by the way that many consultants ensure that patients with warts are seen by junior staff. In our department, for example, 8% of the consultants' time with outpatients is spent treating warts compared with 29% of the registrars' time. It is inappropriate for trainee dermatologists to spend so much time treating warts. Trainees basically serve an apprenticeship, during which they should see as many different conditions as possible, particularly in the outpatient department, and the large workload from warts is detrimental to their training.

Some patients have warts that are resistant to routine treatment, and these patients often receive a very poor service. Patients who genuinely have difficult problems and might benefit from a consultant's opinion rarely see a consultant, and so other treatments, such as intralesional bleomycin,⁵ are rarely considered. If the workload from warts was relieved then the service to these patients could be improved.

Argument against the proposition

The main argument against dermatologists not providing routine wart treatment is that a general practitioner's diagnosis of warts may be incorrect, and important lesions such as cancers may be

missed, with serious consequences for the patient. This argument is probably spurious as only a proportion of patients with warts are referred to hospital anyway. The logical development of the argument is that all warty lesions should be referred to a dermatologist, but this could be supported only if there was evidence that important misdiagnoses occurred often enough that the benefits of such a policy outweighed the costs. On the contrary, it was our impression that when general practitioners diagnosed warts with confidence they were usually correct, but if they were uncertain they used other descriptive terms for the lesion, such as "warty growth." To support our proposition we needed evidence that this was indeed the case.

Accuracy of general practitioners' diagnoses

We carried out a retrospective survey of the case notes of all patients who were referred during one year to the wart clinic of one hospital in our catchment area. We compared general practitioners' diagnoses, as recorded in the referral letter, with the opinion of the dermatology registrar, confirmed by histology when appropriate. About half of the patients who are referred to this hospital with a diagnosis of warts are seen in this clinic. Patients are allocated to the clinic by the records staff, and as far as we are aware there is no bias. We examined 224 case notes; 67 (30%) patients had not attended, and in 13 (6%) cases there was no lesion present by the time the patient was seen. Where the general practitioner's letter stated "wart" and we were able to verify the diagnosis we disagreed in 17 of 144 (12%) cases only. No important lesions had been missed, and in particular no malignancies had been misdiagnosed. It is unlikely that patients would have been harmed if these lesions had been treated as warts (table I). Patients with warts were from a younger

TABLE I—Diagnoses for 17 patients where dermatologists disagreed with general practitioner's diagnosis of wart

Seborrhoeic warts	5	Eccrine poroma	1
Molluscum contagiosum	3	Angiokeratoma	1
Skin tags	2	Melanocytic naevus	1
Dermatofibroma	1	Splinter of wood	1
Pyogenic granuloma	1	Non-specific histology	1

age group (median age 17 years, interquartile range 11-26 years) than the others (median age 40, interquartile range 18-53 years), and disagreements occurred mainly over lesions at sites other than the hands, face, or feet. It is notable that three quarters of the workload from warts came from patients under 26 years, and there is little likelihood of cancers being missed in this age group. Although there may be anecdotal evidence to the contrary, our results suggest that when general practitioners make a confident diagnosis of wart they are probably correct, and even when they are incorrect the risk of harm to the patient is acceptably small.

Where the general practitioner did not seem to be so confident and referred to a lesion as a "warty growth," only two of 15 (13%) were found to be warts, and in this group there was one squamous cell carcinoma.

Other ways of providing the service

Before considering the options in detail we first define our objectives: (a) to improve the service given to all dermatology patients and in particular to patients with resistant warts, (b) to release specialists' time to deal with other clinical or research problems, and (c) to improve the experience and training of junior dermatologists.

There are three main options to be considered:

(1) The medical input to dermatology clinics could be increased. Dermatology might be made a routine part of vocational training schemes for general practice. There are good grounds for this as skin disease accounts for at least 6% of all consultations with general

practitioners.⁴ It takes a long time, however, to learn to recognise and treat skin disease, and so it is difficult to imagine general practitioner trainees, who might rotate through a dermatology department for three months, making a great contribution to the outpatient workload apart from treating warts. Unfortunately, if trainees mainly treat warts they are unlikely to learn much about other aspects of dermatology that will be helpful to them in general practice. The spirit of vocational training would thus be breached.

An alternative would be to appoint clinical assistants. There are many other reasons why clinical assistants might be appointed, but if what is required is a semiskilled technical service for a particular group of patients there seems no reason to appoint a doctor.

(2) General practitioners could be asked to provide more treatment and a greater range of treatments for warts. Bunney *et al* reported in 1976 that after general practitioners were asked to prescribe a three month course of salicylic acid paint before referral waiting times for hospital appointments were dramatically reduced.⁶ But a further study from the same department showed that by 1984, 16.9% of new referrals and a third of return visits were still for wart treatment.³ There is no evidence that cryotherapy is much more effective than salicylic acid paint,⁶ but it is useful to have a range of treatments available so that treatment may be chosen to suit the patient. There is no reason why cryotherapy should not be given in general practice. All general practitioners could be supplied with liquid nitrogen and give cryotherapy if they wished. Some general practitioners may think that they do not see enough patients with warts to justify offering cryotherapy on their premises, but many work in large health centres, where it would be possible to run a wart clinic and offer a range of treatments. General practice is probably the best setting in which to provide treatment. It may be preferred by patients and be cost effective. But it may be argued that it is no more appropriate for general practitioners to treat warts than for dermatologists. Each has skills that might be used better in other ways. General practitioners can treat warts if they wish, but treatment can also be given by a practice nurse or by community dermatological nurses, as described below.

(3) Health authorities could employ nurses to treat warts. This is the option that we prefer. We have already argued that general practitioners' diagnoses are accurate and suggest that they should have direct access to a clinic run by nurses that offers all forms of routine treatment. Clinics could be located in hospitals or in health centres and might possibly take place outside normal working hours, as it seems unnecessary for patients to miss time from work or school. Although it may be argued that such a job would be unappealing, many nurses might welcome the autonomy and greater professional responsibility, and such jobs might eventually incorporate other aspects of dermatology. Clearly there are potential disadvantages to such an arrangement, and in table II we have tried to list the potential costs and benefits. Although several of these are hypothetical, they nevertheless need to be considered. Most are self explanatory, but some are explained in more detail below.

Nurses may give treatment less effectively than doctors because, for instance, they may be excessively cautious when using cryo-

TABLE II—Potential costs and benefits of delegating routine wart treatment to nurses

	Costs	Benefits
To patients with warts	Less effective treatment More side effects	Shorter waiting time More regular treatment For resistant warts: Earlier consultant opinion Other treatments
To other patients	Delayed diagnosis of malignancy	Shorter waiting times Increased consultation times
To dermatologists	Lost skills	Increased job satisfaction Better training Time to provide other specialist services or for research
To nurses	Medicolegal costs	Increased professional responsibility Increased job satisfaction.
To employers	Nurse employment Costly alternative treatments	Shorter waiting lists Improved public image of service

therapy. On the other hand, treatment may be more effective for several reasons. Cryotherapy, for example, is most effective if it is given every three weeks,⁶ but owing to other demands on dermatologists' time this is not always possible. This causes the treatment course to be longer than necessary, thus compounding the original problem of insufficient available time. In a separate clinic run by a nurse it should be possible to provide more regular treatment.

Caution on the part of nurses may also mean that there would be fewer side effects from treatment. On the other hand, routine referral of all patients to a wart clinic may lead to more patients receiving cryotherapy because of its convenience to the operator, and this may result in more side effects. Medicolegal problems may occur for this reason.

In the end value judgments have to be made. We think that the potential advantages of delegating the routine treatment of warts to nurses outweigh the potential disadvantages, and we therefore propose a system for providing wart treatment.

Proposed system for providing wart treatment

All routine wart treatments should be provided by nurses or general practitioners.

Patients with atypical lesions should be referred to hospital for diagnosis, particularly when sites other than the hands, face, or feet are affected or the patient is over the age of 25. If the dermatologist agrees that the lesion is a wart then the patient can be referred back to the nurse or general practitioner for further treatment. The exception to this is that genital warts should be referred to departments of genitourinary medicine.

Patients whose warts fail to respond to six months of conventional treatment could be referred to the dermatologist so that other measures may be considered. The dermatologist may decide that

more prolonged treatment with conventional methods is appropriate and refer the patient back.

Conclusion

Despite our knowledge of the natural history of warts it seems unlikely that the patients will ever be convinced that no treatment is the best treatment except in very young children. There is no likelihood that the demand for treatment will go away, particularly in a society that is being encouraged to be conscious of personal appearance. The present system has been allowed to evolve to the detriment of the service that dermatologists provide to patients with skin disease. Dermatologists, general practitioners, nurses, and managers should take joint responsibility for implementing a policy that would lead to a far more sensible use of resources.

We thank Mrs N Dale, Mrs E Williams, and the medical records staff at Falkirk and District Royal Infirmary for their help. We also thank our colleagues for their cooperation and comments.

References

- 1 Lyell A. Management of warts. *Br Med J* 1966;iii:1576-9.
- 2 Rook A, Savin JA, Wilkinson DS. The prevalence, incidence and ecology of skin disease. In: Rook A, Wilkinson DS, Ebling FJG, Champion RH, Burton JL, eds. *Textbook of dermatology*. 4th ed. Vol 1. Oxford: Blackwell Scientific, 1986.
- 3 Benton EC, Hunter JAA. The dermatology outpatient service: a study of out-patient referrals in a Scottish population. *Br J Dermatol* 1984;110:195-201.
- 4 Royal College of General Practitioners. *Morbidity statistics from general practice. Third national study 1981-82*. London: HMSO, 1986.
- 5 Bunney MH, Nolan MW, Buxton PK, Going SM, Prescott R. The treatment of resistant warts with intralesional bleomycin: a controlled clinical trial. *Br J Dermatol* 1984;111:197-207.
- 6 Bunney MH, Nolan WN, Williams DA. An assessment of methods of treating viral warts by comparative treatment trials based on a standard design. *Br J Dermatol* 1976;94:667-79.

(Accepted 25 August 1987)

My Student Elective

Witchdoctors in Africa

A B KOZIELL, I F LAURENSEN

Baked insects, dried reptiles, and shrivelled white man's flesh are not accepted methods of treatment in most modern textbooks of medicine. In Zululand, however, many patients coming to hospital may already have been treated with similarly bizarre remedies. There is a deeprooted conviction among many tribespeople that a witchdoctor must be visited before a visit to the hospital is considered. It is not unusual to have to treat a sick Zulu first for the effects of a witchdoctor's potions and only subsequently for the original complaint. This sort of conviction emphasises the nature of

many problems we faced working as "modern medicine men" in an environment of strong tribal custom and mysterious beliefs.

We spent our electives at Charles Johnson Memorial Hospital in Nqutu, Kwazulu; it is a former mission hospital now under the jurisdiction of the Kwazulu government. The problems that we encountered are characteristic of those in other black rural homeland hospitals and contrast greatly with those in white hospitals.

The setting

Lying in the heart of Zululand, Charles Johnson Memorial Hospital serves a population of about 500 000 of South Africa's five million Zulu, the largest tribal group in the country. The Christian influence still prevails as witnessed by the centrally situated church and the prayers sung in harmony by the nurses at the change of each shift. The 600 or so beds and assorted floor space are divided among adults (anyone aged over 10), obstetrics, paediatrics, and psychiatry (nicknamed "the zoo" by the locals). The staff comprises Zulu

Department of Medicine, Queen Mary's Hospital, Sidcup, Kent
A B KOZIELL, BSC, MB, house physician

Roodlands General Hospital, Haddington, East Lothian EH4 3PF
I F LAURENSEN, MA, MB, house surgeon

Correspondence to: Dr Koziell.
