cases.[7] In Sylvest's series muscles were swollen and tender, but skin sensibility was normal.[8] Finally, I can find only one previous report[9] of joint involvement, an arthritis of the wrist on the 4th day, but I believe that was from a dengue area.

REFERENCES

1. Langdale-Smith, H. G., *et al.* (1957), *Brit. med. J.*, **1**, 805.
2. Bury, H. S. and Tobin, J. O'H. (1952), *Lancet*, **2**, 267.
3. Cohen, H., *Brit. Encyclopaedia of Med. Practice*, 2nd edition, **3**, 56.
4. Warin, J. F., *et al.* (1953), *Brit. med. J.*, **1**, 1345.
5. Williams, W. O. (1961), *J. Coll. gen. Practit.*, **4**, 181.
6. Scadding, J. G. (1946), *Lancet*, **1**, 763.
7. Locke, E. A. and Farnsworth, D. L. (1936), *Trans. Ass. Amer. Phycns.* **51**, 399.
8. Sylvest, E. (1934), *Epidemic Myalgia.* London.
9. Reynell, P. C. (1946), *Lancet*, **1**, 978.

A NOTE ON THE TREATMENT OF WARTS WITH CHLOROSAL

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In the *Practitioner* for May 1961 (p. 667) appeared an annotation on the above subject. Previous to this I had been treating plantar warts with formalin soaks as recommended in an earlier article. I had found this method disappointing and, during the past 12 months, have been using chlorosal in the form of a weekly dressing. My practice was originally curettage and cauterization under pentothal but any effective alternative to this painful and bloody proceeding is to be welcomed and tried.

Method. The formula used is ac. salicyl 60 per cent; chloral hydr. 5 per cent; paraff. liq. 35 per cent. An ounce or two of this in a screw-topped glass jar will last for many patients and for the series here quoted I am still using the original 2 ounces prescribed when I commenced using the material a year ago.

The wart is cleaned with spirit or cetrimide and excessive callus may be lightly pared before a " medium-size corn-plaster " (N.H.S.

Tariff) is applied to the skin with the wart accurately centred in the aperture. Some plasters stick better than others and, so far, I find that Scholl's seem to adhere the best. The aperture is then packed with chlorosal, a convenient instrument being an ampoule saw, now becoming outmoded and almost extinct since the arrival of frangible ampoule necks.

It is important at this stage to fix the corn pad in its proper place by a strip of 1 in. zinc oxide strapping and the whole dressing is then enveloped with 3 in. elastoplast to encircle the foot. If elastoplast is used without the strip of zinc oxide strapping, the corn pad will creep and the salicylic acid will be found to have expended its action on normal skin. The dressing is left for a week and, if it has remained *in situ*, it will be found that a circle of bleached, soft, and soggy skin presents with the wart in the middle. This dead skin is removed with dressing forceps, the area cleaned up and a careful inspection made for signs of the wart. If still present, the dressing is repeated weekly and, according to circumstances, this may be necessary for the next 2 weeks. Treatment is painless and readily accepted by patients. The only drawback is that, in order to avoid "creep", violent pedal activity such as dancing, and football, is prohibited during treatment. Moreover, the foot must be kept dry and I advise patients to encase the foot in a plastic bag with the top securely taped, when taking a bath.

Results

In the past 12 months 16 patients have been treated, eight of each sex from 6 to 76 years of age; only four were above 16, 76, 54, 37 and 32 respectively.

Most of the warts were plantar in situation, and occurred on one foot only except in one case. In numbers, all were single save in two cases, the one above and one child with three on one sole. Four warts presented on other sites, viz.: one interdigital (foot), one palmar at base of the little finger, one submental and one subungual (foot).

Generally, results are excellent, especially in children and, of the 12 children treated, all had cleared in an average time of 4.5 weeks—all except one, a boy of 6, who commenced to howl as soon as the dressing was removed and who proved so intractable that the effort was discontinued after 3 weeks and his three warts were curetted under pentothal. None of the other children found the treatment unpleasant and a noticeable feature is the relief of pain in the wart after the first dressing.

Among the failures was a plantar wart on the heel of a 32-year-old waiter. He had had it for 20 years and, after 6 weeks treatment, it looked no different but was no longer painful. Curettage having

then failed, he was referred to the radiotherapy clinic and a dose of x-ray left the lesion *in statu quo*. Formalin soaks were resorted to and the wart is still there and treatment for the time being mutually abandoned.

A palmar wart near the base of the little finger in a 36-year-old woman proved equally refractory—due partly to the difficulty of keeping the pad in place. She was cured at hospital by repeated curettage under general anaesthesia.

An interdigital and a subungual wart in two men aged 76 and 54 responded readily and satisfactorily, while a submental flat wart in a boy was quite unaffected.

Conclusions

From this small series treated over the past 12 months it may be considered that plantar warts are effectively removed by this form of treatment, especially where they have not been present for a long period and where there is consequently inconsiderable callus. The treatment is practically painless and can be carried out in less than five minutes. Though restriction of activity is necessary, this compares favourably with the painful immobility that usually succeeds curettage. It is more certain than formalin soaks, the efficacy of which depends on the care taken by the patient whereas chlorosal is applied by the doctor.

It has been the treatment of choice at school clinics in Burton-on-Trent for some years and might well occupy the same place with general practitioners.

Exhibition of American Medical and Surgical Equipment to be held at the United States Trade Centre

An exhibition of American Medical and Surgical Equipment will take place at the U.S. Trade Centre, 57 St. James's Street, London, from 8–30 November, 1962.

This is the first ever all-American medical exhibition to be held in the U.K. Between 20 and 25 American manufacturers will show some of their newest and most advanced medical and surgical equipment. Many of the items will be shown for the first time in this country, while some are already available here.