Government of **Western Australia**
South Metropolitan Health Service
Fiona Stanley Fremantle Hospitals Group

Dermatology pre-referral guidelines – viral warts (verruca)

Fiona Stanley Hospital Dermatology

Disclaimer

These guidelines have been produced to guide clinical decision making for General Practitioners (GPs) and referring non-GP Specialists. They are not strict protocols. Clinical common-sense should be applied at all times. These clinical guidelines should never be relied on as a substitute for proper assessment with respect to the particular circumstances of each case and the needs of each patient. Clinicians should also consider the local skill level available and their local area policies before following any guideline.

Introduction

Viral warts are benign proliferations of the skin and mucosa caused by a common viral skin infection, the human papillomavirus (HPV), of which there are >150 subtypes. Viral warts are particularly common in childhood but may arise at any age. They spread by direct contact or autoinoculation with a latency of weeks to years. They can be painful and a cause of embarrassment.

Viral wart subtypes include:

- Common warts (verruca vulgaris) – hard papule with dry surface most often on hands and knees.
- Palmoplantar warts – round horny deep papules or nodules, most often on weight-bearing sites, can be painful.
- Periungual warts – warts arising around nails.
- Plane (flat) warts – smooth or dry small papules often numerous and most often found on face, backs of hands and shins. Frequently koebnerise, for example after shaving or scratching.
- Filiform warts – long thin lesions most often found on the face.
- Genital warts – often transmitted sexually and affect the genital sites.

Immunosuppression (due to medical condition or medication) increases the frequency and number of viral warts, and can also make viral warts more challenging to treat.

Pre-referral investigations

- Clinical examination is usually enough to diagnose viral warts.

Pre-referral management

Genital warts should be referred to the Sexual Health Clinic via Central Referral Service.

General measures

- Avoid picking and biting at warts to minimise autoinoculation.
- Avoid shaving at affected sites (i.e. beard, axillae, legs) to minimise autoinoculation.
- Keep nails short and hands clean to avoid auto-inoculation by scratching.
- Avoid sharing towels, clothing or baths to prevent spread to others.
- In the case of plantar warts, wear footwear at swimming pools and public bathrooms to prevent spread to others.

- Keep viral warts covered with clothing or plasters to prevent spread to others and auto-inoculation, e.g. cover with Fixomull®/Hypafix® and only remove when the Fixomull®/Hypafix® becomes ragged. Use of Remove® Wipes can help make removal of plasters painless. Then reapply. Provocation of inflammation is a bonus that is often seen with covering with Fixomull®/Hypafix® (or other porous tape) and this can speed resolution of viral warts.

Specific measures

- In most cases no specific treatment is needed as viral warts will typically spontaneously resolve, with ~60% of warts clearing within 2-years and 80% within 4-years.
- Various treatments can be used to hasten resolution in motivated patients.
- First line therapy for warts (excluding the face) is typically with an over-the-counter wart paint, i.e. Wart-Off® or DuoFilm®.
    - These should be applied each evening using a “soak, scrape, cream and tape” technique (see below).
    - Typically, a 3-month trial is recommended.
    - It can be combined with liquid nitrogen cryotherapy administered every 2-4 weeks (multiple treatments are needed and pain from treatment is a significant consideration in children).
- Second line therapy for warts (excluding the face) is typically with prescription Upton’s Paste (60% salicylic acid + 10% trichloroacetic acid + 30% glycerine).
    - This should be applied each evening using a “soak, scrape, cream and tape” technique (see below).
    - Typically, a 3-month trial is recommended.
    - It can be combined with liquid nitrogen cryotherapy administered every 2-4 weeks (multiple treatments needed and pain form treatment is a significant consideration in children).
- Liquid nitrogen cryotherapy is a destructive therapy that can be used to treat viral warts in older children and adults where tolerated. Multiple treatments are needed, typically delivered 2-4 weeks apart. It can be used in combination with topical therapies (as outlined above), which can be applied in between treatments. Paring back of hyperkeratotic/thick/plantar warts prior to cryotherapy may improve efficacy of this treatment. Liquid nitrogen cryotherapy is painful and should be avoided in younger children. It can also cause dyspigmentation and scarring, and should be avoided on the face.

“Soak, scrape, cream and tape” technique:

1. Soak the wart(s) in warm water for 5 minutes.
2. Dry the area thoroughly with a clean towel.
3. Gently file the surface of thick warts with a nail file or pumice stone used only for this purpose. Remember, warts are a virus that can be spread. Take care not to cause bleeding.
4. Apply a layer of [over-the-counter wart paint or prescription Upton’s paste] directly to the wart(s). Take care to avoid healthy surrounding skin as this will cause irritation. Applying petroleum jelly or clear nail varnish to the surrounding skin can help protect it.

5. Cover the wart(s) with a piece of thick adhesive tape, i.e. Leukoplast tape.
6. Leave the tape on overnight and wash it off the following day.
7. Repeat this process every night until the wart(s) disappears – this may take several months.
8. Expect the skin of the wart(s) to appear moist and white during treatment. If the skin becomes too irritated, then take a treatment break for a few days.

Other treatments may be used at the hospital

- Topical agents: Imiquimod cream, Tretinoin 0.05% cream, Contact immunotherapy with diphenylcyclopropenone (DCP), Cantharidin (Dermatologist-delivered treatment)
- Oral agents: Zinc, Cimetidine (in patients weighing <20kg)
- Physical therapies: Curettage, Electrocautery, CO2 Laser
- Other: Intralesional Bleomycin injections, Gardasil immunisation

When to refer

- If there are ongoing signs or symptoms which remain problematic despite the above management, please refer to the Dermatology Department. For immunosuppressed patients or warts affecting the face, consider earlier referral.

Essential information to include in your referral

- Duration of viral warts.
- Site(s) of viral warts.
- Co-morbid atopic dermatitis or immune dysfunction.
- Previous and current treatment, and how long this was used for.

References

1. Paller and Mancini – Hurwitz Clinical Pediatric Dermatology: A Textbook of Skin Disorders of Childhood and Adolescence (6th edution). Elsevier, 2022.

Useful patient resources

1. Viral skin infections. Warts (dermnetnz.org) - Dermnet NZ
2. https://www.dermcoll.edu.au/atoz/warts/ - Australasian College of Dermatologists
3. https://pedsderm.net/site/assets/files/1028/spd_warts_color_rev2024.pdf - Society of Pediatric Dermatology

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