

What works best for nongenital warts?

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Clinical question

What is the efficacy of commonly used treatments for nongenital warts?

Bottom line

High-quality evidence shows warts have resolved with cryotherapy or salicylic acid (SA) more often than with no treatment at 13 weeks. Cryotherapy causes more pain and blistering but gives greater patient satisfaction. Evidence for duct tape is limited and inconsistent.

Evidence

- In a high-quality primary care RCT¹ of 240 children and adults, new warts were treated with cryotherapy (2 to 10 seconds via cotton applicator 3 times every 2 weeks), daily 40% SA, or no treatment. Cure was assessed at 13 weeks.
 - For all warts, cryotherapy cured 39%, SA 24%, and no treatment 16% (vs no treatment, number needed to treat [NNT]=13 for SA and NNT=3 for cryotherapy).
 - For plantar warts, cryotherapy cured 30%, SA 33%, and no treatment 23% (not statistically significant). No patient older than 12 years had spontaneous resolution.
 - Comparing cryotherapy with SA, patient satisfaction was 69% versus 24% (NNT=3); adverse effects included pain (81% vs 12%, number needed to harm of 2) and blistering (51% vs 9%, number needed to harm of 3).
- In a high-quality primary and secondary care RCT,² 229 patients (>12 years) with mostly recalcitrant plantar warts were randomized to cryotherapy (about 10 seconds via spray or probe every 2 to 3 weeks) or daily 50% SA.
 - At 12 weeks, there were no differences between cryotherapy and SA in cure (both 14%), patient satisfaction (62% vs 41%, NNT=5), and blistering (2% vs 0%).
- A systematic review of RCTs,³ limited by small heterogeneous studies, incomplete reporting, and high risk of bias, found cryotherapy not significantly better than placebo (3 RCTs, N=227) but equivalent to SA (4 RCTs, N=707), which is superior to placebo (6 RCTs, N=486; NNT=6).
- Findings were inconsistent in RCTs of duct tape.⁴⁻⁶
 - The cure rate was 17% versus 12% for placebo (not statistically significant).
 - Limitations included short follow-up (6 weeks),⁴ combining clear duct tape with moleskin,⁵ and no evidence of blinding or intention to treat.⁶

Context

- Warts affect up to one-third of schoolchildren.⁷ Transmission increases when family or classmates have warts⁸ and communal showers are used (plantar warts).⁹

- Spontaneous resolution occurs in about 50% of cases at around 1 year¹⁰ and is more common in younger children^{1,10} and for nonplantar warts.¹

Implementation

Salicylic acid is cheap and over-the-counter concentrations vary from 17% to 40%. Cryotherapy is less convenient, more painful, and more costly.¹¹ For cryotherapy, frequent treatment (eg, 1- to 2-week intervals) might result in earlier cure¹² and less recurrence,¹³ but more blistering.¹² Application method does not significantly affect outcomes.¹⁴ The benefit of over-the-counter freezing products is not clear, as coolant temperatures vary (-20°C vs -100°C for liquid nitrogen).¹⁵

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Competing interests

None declared

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