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Topical treatments for cutaneous warts.

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Abstract

BACKGROUND:

Viral warts are a common skin condition, which can range in severity from a minor nuisance that resolve spontaneously to a troublesome, chronic condition. Many different topical treatments are available.

OBJECTIVES:

To evaluate the efficacy of local treatments for cutaneous non-genital warts in healthy, immunocompetent adults and children.

SEARCH METHODS:

We updated our searches of the following databases to May 2011: the Cochrane Skin Group Specialised Register, CENTRAL in The Cochrane Library, MEDLINE (from 2005), EMBASE (from 2010), AMED (from 1985), LILACS (from 1982), and CINAHL (from 1981). We searched reference lists of articles and online trials registries for ongoing trials.

SELECTION CRITERIA:

Randomised controlled trials (RCTs) of topical treatments for cutaneous non-genital warts.

DATA COLLECTION AND ANALYSIS:

Two authors independently selected trials and extracted data; a third author resolved any disagreements.

MAIN RESULTS:

We included 85 trials involving a total of 8815 randomised participants (26 new studies were included in this update). There was a wide range of different treatments and a variety of trial designs. Many of the studies were judged to be at high risk of bias in one or more areas of trial design. Trials of salicylic acid (SA) versus placebo showed that the former significantly increased the chance of clearance of warts at all sites (RR (risk ratio) 1.56, 95% CI (confidence interval) 1.20 to 2.03). Subgroup analysis for different sites, hands (RR 2.67, 95% CI 1.43 to 5.01) and feet (RR 1.29, 95% CI 1.07 to 1.55), suggested it might be more effective for hands than feet. A meta-analysis of cryotherapy versus placebo for warts at all sites favoured neither intervention nor control (RR 1.45, 95% CI 0.65 to 3.23). Subgroup analysis for different sites, hands (RR 2.63, 95% CI 0.43 to 15.94) and feet (RR 0.90, 95% CI 0.26 to 3.07), again suggested better outcomes for hands than feet. One trial showed cryotherapy to be better than both placebo and SA, but only for hand warts. There was no significant difference in cure rates between cryotherapy at 2-, 3-, and 4-weekly intervals. Aggressive cryotherapy appeared more effective than gentle cryotherapy (RR 1.90, 95% CI 1.15 to 3.15), but with increased adverse effects. Meta-analysis did not demonstrate a significant difference in effectiveness between cryotherapy and SA at all sites (RR 1.23, 95% CI 0.88 to 1.71) or in subgroup analyses for hands and feet. Two trials with 328 participants showed that SA and cryotherapy combined appeared more effective than SA alone (RR 1.24, 95% CI 1.07 to 1.43). The benefit of intralesional bleomycin remains uncertain as the evidence was inconsistent. The most informative trial with 31 participants showed no significant difference in cure rate between bleomycin and saline injections (RR 1.28, 95% CI 0.92 to 1.78). Dinitrochlorobenzene was more than twice as effective as placebo in 2 trials with 80 participants (RR 2.12, 95% CI 1.38 to 3.26). Two trials of clear duct tape with 193 participants demonstrated no advantage over placebo (RR 1.43, 95% CI 0.51 to 4.05). We could not

combine data from trials of the following treatments: intralesional 5-fluorouracil, topical zinc, silver nitrate (which demonstrated possible beneficial effects), topical 5-fluorouracil, pulsed dye laser, photodynamic therapy, 80% phenol, 5% imiquimod cream, intralesional antigen, and topical alpha-lactalbumin-oleic acid (which showed no advantage over placebo). We did not identify any RCTs that evaluated surgery (curettage, excision), formaldehyde, podophyllotoxin, cantharidin, diphencyprone, or squaric acid dibutylester.

AUTHORS' CONCLUSIONS:

Data from two new trials comparing SA and cryotherapy have allowed a better appraisal of their effectiveness. The evidence remains more consistent for SA, but only shows a modest therapeutic effect. Overall, trials comparing cryotherapy with placebo showed no significant difference in effectiveness, but the same was also true for trials comparing cryotherapy with SA. Only one trial showed cryotherapy to be better than both SA and placebo, and this was only for hand warts. Adverse effects, such as pain, blistering, and scarring, were not consistently reported but are probably more common with cryotherapy. None of the other reviewed treatments appeared safer or more effective than SA and cryotherapy. Two trials of clear duct tape demonstrated no advantage over placebo. Dinitrochlorobenzene (and possibly other similar contact sensitizers) may be useful for the treatment of refractory warts