

Efficacy of topical treatments for cutaneous warts: a meta-analysis and pooled analysis of randomized controlled trials

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Summary

Many topical treatments for cutaneous warts exist and previous reviews of trials did not follow intention-to-treat (ITT) principles for analysis. We aimed to perform a meta-analysis and pooled analysis of randomized controlled trials (RCTs) of topical treatment for cutaneous warts using ITT principles. Systematic electronic searches (Cochrane library, Medline, Embase, Clinical trial registers) were conducted in May 2009. Included trials reported completed cure of warts and data were extracted from these trials. We performed random-effects meta-analysis and assessed heterogeneity using the *I* statistic and conducted a pooled analysis of each treatment. We found 77 relevant studies of which the majority were of low methodological quality. Salicylic acid (SA) was superior to placebo with a risk ratio (RR) for cure of 1.60 [95% confidence interval (CI) 1.15–2.24]. Cryotherapy was not statistically better than placebo, RR 0.89 (95% CI 0.27–2.92), but aggressive cryotherapy was significantly better than gentle cryotherapy with a RR of 2.06 (95% 1.20–3.52). Combined therapy of SA and cryotherapy had a higher cure rate than either SA or cryotherapy alone. The results of the pooled analysis found a cure rate of 23% (5–73%) in placebo trials, 52% (0–87%) in SA trials, 49% (0–69%) in cryotherapy trials, 54% (45–75%) in aggressive cryotherapy trials and 58% (38–78%) in the combined cryotherapy and SA trials. Aside from the use of SA and aggressive cryotherapy there is insufficient evidence from RCTs to support the use of other therapies. Higher quality evidence is needed to evaluate other therapies.