



To freeze or not to freeze?

Answering a question about the treatment of cutaneous warts

Lyndal Trevena, MBBS (Hons), MPhilPH, is Lecturer, School of Public Health, The University of Sydney, New South Wales.

The setting

Recently I saw a 16 year old boy with multiple warts on his left hand. He was understandably embarrassed about the warts that had been present for around six months, and had visited another practice receiving the advice to return and have them 'frozen off'. He was pretty nervous about this option, uncertain about how effective it would be, and wanted another opinion from me.

Asking the question

I thought this young man was asking some fairly reasonable questions and offered to look this up for him. Thinking about it further, I decided to structure my question into the PICO framework¹ as follows:

In adolescents with cutaneous warts (Patient) is cryotherapy (Intervention) more effective than topical agents or placebo (Comparison) in eliminating the infection (Outcome)?

Acquiring the evidence

Having had an extremely busy clinic that morning, and knowing that the Cochrane Library is a reliable source for good quality evidence on the effectiveness of treatments, I went to Google (www.google.com.au) and typed in 'Cochrane'. I noticed that the third result listed was: 'Log onto the Cochrane Library' at <http://www.update.software.com/clibng/cliblogon.htm>. (I've bookmarked this address on my computer for next time). I typed in 'warts AND

cryotherapy' and found one systematic review on the topic in question.²

Assessing the evidence

The authors of this systematic review had conducted a very thorough search of all the relevant databases for randomised controlled trials (RCTs) on this topic. RCTs are the best study design for answering a question about treatment and these authors only included trials that were of good quality. They combined and summarised the findings of 49 RCTs. My take home messages from this were:

- the cure rate in placebo groups across a number of studies was 30% after 10 weeks, confirming my own clinical experience that the placebo effect can be substantial in cutaneous warts
- topical salicylic acid had a significantly greater cure rate (44/191, 75%) than placebo (89/185, 48%) in controls. The odds ratio was 3.91 (95% CI: 2.40-6.36) meaning that people using topical salicylic acid were four times more likely to be cured of their warts than those using a placebo
- there is insufficient evidence for the effectiveness of cryotherapy compared with placebo and no evidence for cryotherapy being any better than salicylic acid. More aggressive cryotherapy seemed to be more effective but pain and blistering were more common. Adding cryotherapy to topical salicylic acid seemed to be more effective than salicylic acid alone

(OR: 2.08, 95% CI: 1.26-0.43)

- bleomycin, 5-fluorouracil, interferons and photodynamic therapy are all potentially toxic and there is no evidence that they work. Dinitrochlorobenzene appears to be effective but is also toxic.

Applying the evidence

So what does all of this mean for my 16 year old patient? I was able to confirm with him that his doubts about the efficacy and safety of cryotherapy were supported by the evidence and discussed the possibility of treating the warts on his hands with topical salicylic acid. I told him that if he used the treatment as prescribed he had a 75% chance of being cured over the next few months. We also planned to reconsider the option of combined salicylic acid and cryotherapy after three months as this would double the chance of cure. He was nervous about cryotherapy and his preference was for a trial of topical salicylic acid for three months. I found it useful to be able to present these probabilities to him and to be able to tailor the evidence to his own personal preferences.

References

1. Del Mar C. Does the evidence change your practice? Aust Fam Physician 2003; 32(7):539.
2. Gibbs S, Harvey I, Sterling J, Stark R. Local treatments for cutaneous warts (Cochrane Review). The Cochrane Library 2003; (Issue 2).

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Correspondence

Email: lyndalt@health.usyd.edu.au