Chronic paronychia

Putting a finger on the evidence

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At first glance it seemed a minor problem, but the look on my new patient's face suggested otherwise. His finger had been painful for months and this week it had become worse. His swollen, erythematous nail fold, absent cuticle, and mildly dystrophic nail painted a typical picture of chronic paronychia. Assuming an acute bacterial superinfection, I prescribed a course of antibiotics, but my patient needed advice on treatment of the underlying condition. Another general practitioner had arranged fungal cultures, which had grown candida. Would antifungals be the best treatment? My patient and I agreed to meet in a week to assess his response to the antibiotics and to discuss treatment of the underlying chronic paronychia.

Asking an expert

My first impulse was to turn to 'eminence based medicine'.[1] I called a clinical microbiologist, who suggested that a candidal infection of this nature would be best treated with an oral antifungal such as fluconazole. I thanked him for his advice, but afterward I considered the potential side effects of this class of medicines as well as their cost (they are not listed on the PBS for this indication). I wondered if there was another treatment option, so I turned to the literature.

A clinical question

My next step was to construct an answerable clinical question that would aid my search for the evidence I needed. Using the PICO model (**P**atient or **P**roblem, **I**ntervention, **C**omparison, **O**utcome),[2] I asked: in an adult with chronic paronychia which is positive for candida (P), how do oral antifungals (I) compare to other treatments, including placebo, (C) in bringing about improvement or cure (O)?

Finding the evidence

I searched the Medline database (www.pubmed.gov). I was prepared to use all the above elements of my question, but after combining just 'paronychia' and 'candida' I retrieved less than 80 items. This was a small enough number for me to simply scan all of the citations and abstracts. Most were not relevant, and there were no meta-analyses, but I did find a single randomised controlled trial which seemed to answer my question,[3] as well as a short article which summarised that trial.[4]

Surprisingly, the abstract indicated that topical steroids were better than antifungal agents for treating chronic paronychia. This seemed counterintuitive, so I was keen to read the full papers. They were delivered quickly (and for free) by the RACGP John Murtagh Library (www.racgp.org.au/library).

Assessing the evidence

Tosti et al[3] performed a small but robust trial to compare three different treatments for chronic paronychia. Forty-five patients were randomly allocated to 3 weeks of either oral itraconazole (200 mg/day), oral terbinafine (250 mg/day) or topical 0.1% methylprednisolone aceponate cream. To maintain blinding, each active treatment was supplemented with placebo creams or capsules. Patients were examined and nail folds were scraped for mycology at the end of treatment, and again after 6 weeks.

While most patients on the oral antifungals remained stable in their disease, most patients on the topical steroid improved. The superiority of the steroid based treatment was statistically significant. Only two patients were cured.

Twenty-two patients grew candida at some point during the study, but the eradication of candida did not seem to consistently relate to clinical improvement or cure. Further, the two patients who had both clinical cure and candidal eradication were in the topical steroid group.

The authors concluded that chronic paronychia is not a fungal infection, as traditionally thought, but rather a dermatitis of the nail fold, which often becomes colonised by candida.

In retrospect, I could also have searched the Cochrane Library (www.thecochranelibrary.com). When I did this later, I was interested to discover another relevant

trial which demonstrated no benefit of oral terbinafine over placebo for chronic paronychia.[5] I did not find any trials that contradicted the results of the Tosti et al[3] trial.

Putting the evidence into practice

I discussed this trial with my patient, explaining that it seemed his problem was difficult to cure, but that I could probably offer an improvement with methylprednisolone cream. I explained that antifungal treatments were not only expensive but also less effective. He was happy to try the steroid cream. I also discussed avoidance of irritants such as wetting, soaps and detergents.

A week later, his nail fold looked unchanged to me, but he described a great reduction in pain and an improvement in function. An interstate move prevented further follow up, but he left my room looking much happier than when I first met him.

Conflict of interest: none.

References

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