Systemic or topical treatment for impetigo?

Hannah Gunn, *is an overseas elective medical student, Glasgow University, Scotland.*
Chris Del Mar, *MD, FRACGP, is Professor of General Practice, Centre for General Practice, The University of Queensland.*

The setting

C K, a four year old boy, presented with several variously sized, irregular but well circumscribed lesions, with golden crusting developing over two weeks - classic presentation of impetigo. While discussing treatment options with his mother, she raised three issues that were important to her:

- the time he should be excluded from kindergarten
- concern about the use of broad spectrum antibiotics, and
- the cost of medication.

The lesions had not responded to topical antiseptics so we decided to check alternatives to the oral penicillin that would normally be offered,[1] in particular, the efficacy of narrow spectrum topical antibiotics.

Asking the question

Among children with impetigo (Patient) is topical treatment (Intervention) more effective than placebo (Comparison) in eliminating the infection (Outcome)? Our ideal evidence would have been a systematic review of topical treatment compared with systemic antibiotic.

Accessing the information

We looked up 'impetigo' in clinical evidence: there was no entry.[2] We then performed an electronic search in the Cochrane Library using the same search term (impetigo:ti to limit the word to title). Although a very simple search, this was effective enough for our needs where time was short (the patient was waiting). There were 103 'hits'. Two were completed systematic reviews, but not relevant. One protocol for a Cochrane review was listed, but it had not yet been completed. In the Controlled Trials Register there were 94 trials. Scanning the titles of these suggested only one of particular interest.[3] We accessed the full text of the article online.

Assessing the evidence

One trial compared topical fusidic acid (a narrow spectrum antibiotic) with placebo for impetigo.[3] There was a significant improvement in clinical cure rates at one week: 55% of those treated with fusidic acid compared with 13% with placebo (OR: 12.6; 95% CI: 5.0–31.5). This provided a number needed to treat of only 2.3 children treated with topical fusidic acid instead of placebo to cure one in a week. After 4–6 weeks the difference in cure rates became smaller, suggesting that impetigo often probably resolves spontaneously in that time. We found no recent trial in the Cochrane Library comparing topical treatment with systemic antibiotics.

Applying the evidence

We explained the lack of evidence comparing conventional systematic antibiotics with topical treatments. However, we offered the information that impetigo was effectively treatable with topical narrow spectrum antibiotic, and C K's mother elected that alternative.

Discussion

The use of an electronic literature search during the consultation was both fast and effective. We also felt more confident that we were providing the best evidence based treatment. C K's mother said she appreciated having her concerns taken into account and researched.

Postscript

Since writing this article, we undertook a search of PubMed (the web version of Medline) on the advice of reviewers. Normally one does not need to look here as the Cochrane Library has more trials (with extras found from hand searching, conferences and other sources not normally indexed in Medline), although the Cochrane Library (updated only every three months) is updated less often than PubMed (every day!). There we found a report of a more recent meta-analysis. It confirms the above.[4]

Conflict of interest: none declared.

References

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Correspondence
C.DelMar@CGP.uq.edu.au