



Cochrane
Library

Cochrane Database of Systematic Reviews

Interventions for recurrent corneal erosions (Review)

Watson SL, Barker NH

Watson SL, Barker NH.

Interventions for recurrent corneal erosions.

Cochrane Database of Systematic Reviews 2007, Issue 4. Art. No.: CD001861.

DOI: [10.1002/14651858.CD001861.pub2](https://doi.org/10.1002/14651858.CD001861.pub2).

www.cochranelibrary.com

Interventions for recurrent corneal erosions (Review)

Copyright © 2009 The Cochrane Collaboration. Published by John Wiley & Sons, Ltd.

WILEY

[Intervention Review]

Interventions for recurrent corneal erosions

Stephanie L Watson¹, Nigel H Barker²

¹Bondi Junction, Australia. ²Morrings Eye Clinic, Bridgetown, Barbados

Contact address: Stephanie L Watson, Level 11/1 Newland Street, Bondi Junction, NSW, 2022, Australia. s.watson@unsw.edu.au.

Editorial group: Cochrane Eyes and Vision Group.

Publication status and date: Edited (no change to conclusions), published in Issue 1, 2009.

Citation: Watson SL, Barker NH. Interventions for recurrent corneal erosions. *Cochrane Database of Systematic Reviews* 2007, Issue 4. Art. No.: CD001861. DOI: [10.1002/14651858.CD001861.pub2](https://doi.org/10.1002/14651858.CD001861.pub2).

Copyright © 2009 The Cochrane Collaboration. Published by John Wiley & Sons, Ltd.

ABSTRACT

Background

Recurrent corneal erosion is a common cause of disabling ocular symptoms and predisposes the cornea to infection. It may follow corneal trauma. Measures to prevent the development of recurrent corneal erosion following corneal trauma have not been firmly established. Once recurrent corneal erosion develops simple medical therapy (standard treatment) may lead to resolution of the episode. However some patients continue to suffer when such therapy fails and once resolved further episodes of recurrent erosion may occur. A number of treatment and prophylactic options are then available but there is no agreement as to the best option.

Objectives

To assess the effectiveness and safety of prophylactic and treatment regimens for recurrent corneal erosion.

Search methods

We searched CENTRAL, MEDLINE, EMBASE and LILACS in June 2007. The NRR was searched in April 2005. We also contacted researchers in the field.

Selection criteria

We included randomised and quasi-randomised trials that compared a prophylactic or treatment regimen with another prophylaxis/ treatment or no prophylaxis/ treatment for patients with recurrent corneal erosion.

Data collection and analysis

Both authors independently extracted data and assessed trial quality. We contacted study authors for additional information.

Main results

Five randomised and one quasi-randomised controlled trial were included in the review. The trials were heterogenous and of poor quality. Safety data presented were incomplete. For the treatment of recurrent corneal erosion there was limited evidence that oral tetracycline 250 mg twice daily for 12 weeks or topical prednisolone 0.5% four times daily for one week or both in addition to standard treatment; and excimer laser ablation in addition to mechanical debridement may be effective. Therapeutic contact lens wear was inferior to lubricant drops and ointment in abolishing the symptoms of recurrent corneal erosion and had a high complication rate. For prophylaxis of further episodes of recurrent corneal erosion there was no difference in the occurrence of objective signs of recurrent erosion between hypertonic saline ointment versus tetracycline ointment or lubricating ointment. Lubricating ointment at night in addition to standard treatment following traumatic corneal abrasion (erosion) caused by fingernail injury to prevent recurrence led to increased symptoms of recurrent corneal erosion compared to standard therapy alone.

Authors' conclusions

Well-designed masked randomised controlled trials using standardised methods are needed to establish the benefits of new and existing prophylactic and treatment regimes for recurrent corneal erosion.

PLAIN LANGUAGE SUMMARY**Prophylactic and treatment regimens for recurrent corneal erosion**

In recurrent corneal erosion repeated episodes of breakdown of the corneal surface produce disabling ocular symptoms and predispose the cornea to infection. Recurrent corneal erosion may follow corneal trauma. Prophylactic measures may be required to prevent the occurrence of recurrent erosion following trauma or to prevent further episodes of recurrent erosion once the diagnosis is made or both. Most episodes of recurrent corneal erosion resolve with simple medical therapy such as topical drops and ointment. Alternative treatment strategies are required when such simple measures fail. Randomised controlled trials of prophylactic and treatment regimens were of insufficient quality to provide evidence for the development of management guidelines. There was limited evidence that oral tetracycline or topical prednisolone or both, and excimer laser ablation may be effective treatments for recurrent corneal erosion. Further evidence is needed to guide the management of recurrent corneal erosion.