

# Steroids for Corneal Ulcers Trial (SCUT) - 2012



## Objective

To determine whether there is a benefit in clinical outcomes with the use of topical corticosteroids as adjunctive therapy in the treatment of bacterial corneal ulcers.

## Methods

**Design:** Double-blinded RCT

**Sample Size:** 500

**Treatment Groups:**

- 250 to placebo
  - 250 to 1% prednisolone
- All patients received Vigamox 48 hrs before randomization

**Outcome Measures:**

- Best spectacle-corrected visual acuity (BSCVA)
- Scar size, time to epithelialization, adverse events

## Results

Point 1: Corticosteroids offered no significant improvement compared with placebo

- At 3 weeks, corticosteroid-treated patients had 0.024 better logMAR acuity (approximately one-fourth of a line) \*Not statistically significant ( $P = 0.49$ )
- No significant difference in average time to re-epithelialization, but more patients in the corticosteroid arm had an epithelial defect at 21 days or later compared with placebo (44 [17.6%] vs 27 [10.8%];  $P = .04$ )
- No significant difference was observed in the number of corneal perforations between treatment arms ( $P > 0.99$ )

Point 2: Corticosteroids led to better visual outcomes in patients with worse corneal ulcers

- For baseline BSCVA of counting fingers or worse, corticosteroid-treated patients had 0.17 better logMAR acuity (approximately 1.7 lines)  $P = .03$
- For ulcers covering the central 4-mm pupil, corticosteroid-treated patients had 0.20 better logMAR acuity (approximately 2 lines)  $P = .02$

**TLDR: Use of corticosteroids was neither beneficial nor dangerous for patients as a whole. However, for patients with CF or worse on presentation, topical prednisolone led to better visual outcomes.**