

Herpetic Eye Disease Study (HEDS) Part I



Objective

To evaluate the efficacy of topical corticosteroids in treating herpes simplex stromal keratitis.

Methods

Design: Double-blinded RCT

Sample Size: 106 patients with HSV stromal keratitis

Treatment Groups:

- 49 to placebo
- 57 to 1% prednisolone phosphate

& Topical trifluridine and tapered regimen given to both groups

Outcome Measures:

- Time to resolution
- Risk of persistence
- Time to treatment failure
- Visual outcomes

Results

Point 1: The time from randomization to resolution of stromal keratitis was significantly shorter in the steroid group as compared to the placebo group.

- Corticosteroid group: median, 26 days, 95% CI (14-49); placebo group: median, 72 days, 95% CI (44-123); 95% CI of the median difference (14-58); $P < .001$

Point 2: Compared with placebo, corticosteroid therapy reduced the risk of persistent or progressive stromal keratouveitis by 68%.

- Difference in time to treatment failure between groups was highly in favor of the steroid group ($P < 0.001$)

Point 3: At 6 months after randomization, there were no clinically or statistically significant differences in visual outcome or recurrent herpetic eye disease between the steroid and placebo groups.

- 59% of placebo group and 61% of steroid group had an improvement in visual acuity of two lines or more
- No significant difference in recurrence of stromal keratitis after stopping treatment between two treatment groups ($P = .9$)

TLDR: Use of topical corticosteroids were effective in hindering the progression of stromal inflammation and shortening the duration of herpes simplex stromal keratitis with topical antiviral prophylaxis