Herpetic Eye Disease Study (HEDS) Part II

THE LENS

Objective

To assess for the benefit of oral antivirals (acyclovir) in preventing progression (study A) and recurrence of HSV keratitis (study B*). Note A & B are for the purposes of this summary, not true identifiers*

Methods

Design: Double masked RCTs

Sample Size:

- Group A: N = 287 patients treated for epithelial keratitis
- Group B: N = 703 immunocompetent patients with HSV in prior year

Treatment Groups:

- Group A: acyclovir 400 mg 5x/day vs. placebo
- Group B: acyclovir 800 mg daily vs. placebo

Outcome Measures:

- Group A: development of stromal keratitis/iritis (progression)
- Group B: Any HSV recurrence

Results

Point 1: Oral acyclovir did not reduce the rates of progression (development of stromal keratitis or iritis) in patients already being treated for HSV epithelial keratitis

- In the high dose acyclovir group, 11% proceeded to develop stromal keratitis or iritis compared to 10% in the placebo group (adjusted risk ratio 1.16, 95% confidence interval 0.56 – 2.43)
- All patients were treated with topical 1% trifluridine

Point 2: Oral acyclovir was helpful in reducing rates of recurrence of HSV keratitis

- For immunocompetent patients with HSV in the preceding year, there was a risk reduction for recurrence: 19% in acyclovir group to 32% in the placebo group (risk ratio 0.55, 95% CI 0.41-0.75, P < 0.001)
- For epithelial keratitis, the risk ratio was 0.62 (95% CI 0.39-0.97)
- For stromal keratitis, the risk ratio was 0.57 (95% CI 0.36-0.89)
- In subgroup analysis, the benefit in prevention of epithelial keratitis was to all patients while the benefit of preventing stromal keratitis was limited to the patients with a history of stromal keratitis

TLDR: Oral antivirals are helpful in preventing recurrence of HSV keratitis, but are not clearly beneficial to prevent progression for patients already with active HSV epithelial disease

A controlled trial of oral acyclovir for the prevention of stromal keratitis or iritis in patients with herpes simplex virus epithelial keratitis. The Epithelial Keratitis Trial. The Herpetic Eye Disease Study Group. Arch Ophthalmol. 1997 Jun;115(6):703-12.

Oral acyclovir for herpes simplex virus eye disease: effect on prevention of epithelial keratitis and stromal keratitis. Herpetic Eye Disease Study Group. Arch Ophthalmol. 2000 Aug;118(8):1030-6. PMID: 10922194.