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The Steroid Controversy in Bacterial Keratitis

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The January 2009 Controversies series of articles highlights a major debate.^{1,2} Some corneal specialists use adjunctive corticosteroids to reduce scarring in bacterial keratitis. Others fear that suppressing the immune system is the worst thing you can do. Hindman and Patel et al¹ state that only a single, under-powered trial has addressed this and suggest that a large definitive trial is necessary to end the debate. By the time this Controversies series was published, there had actually been 2 published trials,^{3,4} and a third, large trial is well under way.

We recently published the results of a randomized trial of 42 patients that studied the effect of adjunctive topical steroids in bacterial keratitis.⁴ Although steroids affected neither acuity nor scar size, they did significantly delay reepithelialization. Dr Cohen² discontinued her trial because of a poor outcome in a case of *Pseudomonas* infection. We too had adverse events—all 4 were in the placebo arm. Although this is the largest study published to date, it was clearly underpowered to put the controversy to rest.

We are now in the midst of the Steroids for Corneal Ulcers Trial, which addresses this very question (NEI U10-EY015114). As of June 2009, we have enrolled 417 of 500 cases (including many ulcers caused by *Pseudomonas* bacteria) at the University of California, San Francisco, Dartmouth Medical Center, and in India, with by far the greatest number from the Aravind Eye Care system. With standardized treatment and assessments, we hope our study will provide definitive evidence to guide clinicians through this controversy. In the meantime, doubts remain. When we announced our trial at a national meeting, one researcher told us that our steroid regimen was timid; another told us we had better have a good lawyer.

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