A multicenter comparison of polymyxin B sulfate/trimethoprim ophthalmic solution and moxifloxacin in the speed of clinical efficacy for the treatment of bacterial conjunctivitis.

Granet DB, Dorfman M, Stroman D, Cockrum P.

PURPOSE: To compare the speed of clinical efficacy for two currently available topical antibiotics: polymyxin B sulfate/trimethoprim (polymyxin/trimethoprim) and 0.5% moxifloxacin ophthalmic solution.

METHODS: Eighty-four eyes of 56 patients younger than 18 years with a clinical diagnosis of bacterial conjunctivitis were enrolled in this multicenter study. Patients were randomly assigned to receive either 1 drop of polymyxin/trimethoprim four times daily for 7 days or 1 drop of 0.5% moxifloxacin three times daily for 7 days. Ocular signs and symptoms were evaluated at baseline and 24 and 48 hours after the start of dosing. Microbiological cultures were collected at baseline and 48 hours. Patients rated ocular symptoms and adverse events on day 7 via telephone interview. Primary efficacy assessment included relief of all signs and symptoms of bacterial conjunctivitis.

RESULTS: All patients but one completed all visits. At the 48-hour visit, complete resolution of ocular signs and symptoms was observed in 81% of the patients treated with moxifloxacin and 44% of the patients treated with polymyxin/trimethoprim (P = .001). No adverse events were reported.

CONCLUSION: Moxifloxacin 0.5% administered three times daily is safe and cures bacterial conjunctivitis more effectively and significantly faster than polymyxin/trimethoprim dosed four times daily. The majority of patients were cured and symptom-free by 48 hours. Therefore, moxifloxacin is cost-effective and significantly more efficacious than polymyxin/trimethoprim in the speed by which it reduces the symptoms and disease transmission.

PMID: 19043945 [PubMed - indexed for MEDLINE]