

Bacterial keratitis. Microbiological analysis as a principle for therapeutic recommendations.

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Abstract:

PURPOSE: The study presented differentiates between the aetiological agents of bacterial keratitis in patients with and without a history of contact lens wear. Based on these results, recommendations are given for optimal antibiotic primary therapy. **PATIENTS AND METHODS:** Swabs and corneal scrapings were taken from 218 patients referred to the University Eye Hospital in Munich with a diagnosis of bacterial keratitis from 1989 to 1997. Ninety-two of these patients had a history of contact lens wear; 126 had none. The germs were isolated and identified by staining and microscopy. Observing polymicrobial growth in 51 patients, a total of 275 germs was isolated. **RESULTS:** The most frequent pathogens were *Staphylococcus epidermidis* (44%), *S. aureus* (18%), *Streptococcus* spp. (10%), *Propionibacterium acnes* (7%) and *Pseudomonas aeruginosa* (6%). Gram-negative germs were nearly exclusively isolated from contact lens wearers, gram-positive germs were predominant in non-contact lens wearers. **CONCLUSION:** Keratitis in patients with a history of contact lens wear is often caused by aggressive gram-negative germs. Those cases should immediately be treated with quinolones and erythromycin. In keratitis caused by gram-positive pathogens, a combination with aminoglycosides and erythromycin is sufficient.