

R1  R2  R3  PG0  PG1  Estagiário  Tecnólogo   
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Service (sector) Laboratory N° CEP

### **INFECTIOUS KERATITIS FOLLOWING REFRACTIVE**

**SURGERY** Authors: Leal, F. A. de M.; Correia, P. L.; Freitas, D.; YU, M.C.Z.; Höfling-Lima, A. L. Purpose: To study patients with clinical diagnosis of keratitis, who underwent refractive surgery. Methods: Retrospective study of 97 patients referred to the External Diseases Laboratory of Escola Paulista de Medicina, with clinical diagnosis of keratitis, who underwent refractive surgery from January 1988 to July 2001. Corneal scraping specimens were obtained and according to the amount of tissue the following exams were performed: gram and geimsa staining; culture onto blood agar, chocolate agar, sabouraud's agar and thioglycolate broth. All data was collected from the laboratory report form. The patients had previously been submitted to radial keratotomy (RK), photorefractive keratotomy (PRK) or laser in situ keratomileusis (Lasik). Early infection was defined as occurring within 30 days after the surgery and late infection as occurring after 30 days of the procedure. The microbial susceptibility to ciprofloxacin, levofloxacin, norfloxacin, ofloxacin and tobramycin was also analyzed. Results: Material for culture and staining was obtained from 97 patients. The average age was 32.30 years. 47.56% were male and 52.41% were female. The surgical procedures and time of keratitis onset were: 17.07% early RK, 31.71% late RK, 12.19% early PRK and 6.10%% late PRK, 20.74% early Lasik and 12.19% late Lasik. 101 cultures and 86 microbial sensitivities were performed from the tissue collected in 82 patients. 48(47.52%) of the cultures showed positive results and in 49(56.97%) it was possible to identify microorganisms. These microorganisms were: Staphylococcus aureus (32.40%), Staphylococcus coagulase-negative (20.60%), Pseudomonas sp (11.80%). Pseudomonas aeruginosa, Beta-hemolytic streptococcus, Gama-hemolytic streptococcus, Nocardia sp, Moraxella sp, Mycobacteria, Penicillium sp, and Candida guilliermondi were also identified. The microbial susceptibility to antibiotics was analyzed in 175 antibiograms. 41.37% of the microorganisms were susceptible to levofloxacin, 51.72% to norfloxacin, 55.17% to ciprofloxacin and ofloxacin, and 72.41% to tobramycin. 15 patients were unclassified due to incomplete data. Conclusion: The laboratory investigation is important to the diagnosis of infection following refractive surgery and to the selection of proper antibiotics. In this study the culture and drug sensitivity were equally important, and most of the microorganisms were susceptible to tobramycin.