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PIBIC Last Name - Camargo First Name - Juliana Middle - Ferreira

Service (sector) Epidemiology

### **Epidemiology of Acanthamoeba keratitis: risk factors**

Freitas, D. Camargo, JF.

Introduction: Acanthamoeba keratitis is a rare cornea infection, but it can be a potentially devastating complication for patients wearing contact lenses, being an important cause of loss of vision. The symptoms are not precise, usually related to intolerance of wearing contact lenses, decrease vision, photophobia, tearing and severe pain. Objective: the study intends to evaluate the possible risk factors involved in keratitis allowing the development of programs for the prevention of the infection. Methods: retrospective evaluation of 33 patients with Acanthamoeba keratitis who went to the Cornea Service of the Department of Ophthalmology at UNIFESP between January 2004 and June 2005. Charts were searched for history of ocular trauma, exposure to potentially contaminated water, use of contact lenses, lens type, hours of contact lens wear; frequency of discharge, sleeping with lenses and conditions of storage and cleaning . Results: the search revealed that all patients (100%) worn contact lenses, 87,5% were on soft contact lenses and 12,5% on rigid gas permeable lenses; 62,5% of the lenses were disposable; 100% did not have the habit of sleeping with the contact lenses; 75% used saline solution to wash and chemical solution to disinfect the lenses, 12,5% referred to use only saline solution for the maintenance of their contact lenses. 87,5% patients had the habit of taking bath wearing the contact lens; 50% confirmed the wear of contact lenses in the swimming pools, 37,5% in sea water, and only one in bathtub. Regarding length of the wear of the same contact lens, in the group of disposable lenses, 37,5% affirmed to replace the lens after a month, 25% after two months; in the group of daily wear, 12,5% replaced the lens within six months, 12,5% after twelve months and 12,5% after twenty four months. It was found just one patient with bilateral Acanthamoeba keratitis. Conclusion: the most important risk factors for the development of Acanthamoeba keratitis are: use of contact lenses, poor care, exposure to possibly contaminated water and incorrect replace regimen.