Abstract

Use of soft contact lenses medicated as well as cosmetic is routine. In spite of its comfort, they have a high probability of being contaminated with microorganisms and must be regularly disinfected for its preservation. Aspergillus fumigatus is a cosmopolitan fungus, and is frequently associated with micosis like keratitis. In this study capacity of A. fumigatus to proliferate in five materials of lenses: three of hidrogel (Alphafilcon A, Omafilcon A, Polymacon) and two of hidrogel silicone (Lotrafilcon and Balafilcon A), was evaluated. It was found that fungus can grow in Balafilcon A in greater proportion, and it was smaller in Polymacon. In addition, disinfection capacity of five multipurpose solutions was evaluated, which differ from others because of antimicrobial component. Multipurpose solutions showed to have a fungistatic effect, except solution with hydrogen peroxide that displayed a fungicidal effect. Solutions with Trimetropim did not show any effect on the microorganism. Also, disinfectant capacity of materials previously infected with A. fumigatus was evaluated for each solution. In this case, solution with hydrogen peroxide showed to be the most effective.

Keywords

Aspergillus fumigatus, disinfection, hydrophilic contact lenses, multipurpose solutions.