Abstract

Candida albicans, one of the most dreadful fungal pathogens threatening humans, could not be easily prevented. The anticandidal activity of oak gall extract, Quercus infectoria (QIE), was investigated as a potential natural alternative to synthetic and chemical fungicides. QIE anticandidal potentiality was confirmed using both qualitative and quantitative assays. Cotton textiles were treated with QIE and then evaluated as anticandidal fabrics. QIE-treated textiles had a potent anticandidal activity, which could completely inhibit the inoculated C. albicans cells. The durability of anticandidal activity in QIE-treated textiles almost completely disappeared after the fourth laundering cycle. QIE could be recommended, however, as a potent anticandidal agent for preparing antiseptic solutions and emulsions and as a finishing agent for manufacturing anticandidal disposable diapers and hygienic clothes.

Keywords

Cotton fabrics, Application, Candida albicans, Quercus infectoria.