ABSTRACT

This study tested the effect of six plant essential oils (Bergamot, Lavender, Lemon, Rosemary, Sweet orange and Ylang-ylang) on the growth of Candida albicans. Pre-test screening was done using the antifungal disk assay. Essential oils that tested positive in the disk assay test were then subjected to growth response test. Fungal concentration was measured before and after essential oil treatments using Miles and Misra method. The results showed that initial screening tested positive for Bergamot, Lemon, Rosemary and Sweet orange. These oils also showed varying degrees of inhibition on the growth of Candida suspension after fifteen days. The four essential oils proved to possess significant (p<0.05) inhibitory effect on Candida albicans, but with no significant (p>0.05) difference among them. Bergamot, Lemon, Rosemary and Sweet orange impose inhibitory effect on the growth of Candida albicans although none of the oils showed total inhibitory effect within the fifteen-day period. It can be concluded that these four essential oils are mild inhibitors of Candida albicans but not fungicides. Variances between the degrees of inhibitory effect of the four essential oils against the pathogen are not significant (p>0.05).