ANTI-CANDIDA ACTIVITY OF SOME PLANT HYDROALCOHOLIC EXTRACTS

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ABSTRACT

Medicinal plants have been used in developing countries as alternative treatments to health problems. Many plant extracts and essential oils isolated from plants have been shown to exert biological activity \textit{in vitro} and in vivo, which justified research on traditional medicine focused on the characterization of antimicrobial activity of these plants (Martinez et al., 1996).

Since plants produce a variety of compounds with antimicrobial properties, it is expected that screening programs for some under-represented targets, such as antifungal activity, may promote candidate compounds for developing new antimicrobial drugs (Ahmad and Beg, 2001). \textit{Candida albicans} is an opportunistic pathogen that can cause local and systemic infections affecting immunologically depressed patients and those undergoing prolonged antibiotic treatment (Zhang et al., 2002). Yet, the information available on plants, particularly medicinal plants, active against this yeast species has, until recently, not resulted in effective formulations for humans or animal use.

In the present study, hydroethanolic extracts from 3 active medicinal plant species (Rosmarinus officinalis, Angelica officinalis, Ocinum basilicum) were screened for antimicrobial activity against \textit{Candida albicans}. As positive control we used hexoral. Cell proliferation was measured after 24, 48, 72 hours after treatment, using an spectophotometric method.

\textit{Candida albicans} vaginalis was inhibited after 24 hours by all three extracts but with the best results after 72 hours, at 80 ppb extracts containing 90\% Hexoral, 53\% Rosmarinus officinalis, 75\% Ocinum basilicum, 50\% Angelica officinalis compared to untreated cells. For pharyngeal candidosis we noticed an inhibition of \textit{Candida} cell proliferation after 72 hours from treament, at 80 ppb extract, with 89\% Hexoral, 49\% Rosmarinus officinalis, 80\% Ocinum basilicum, 48\% Angelica officinalis, compared to negative control.

We conclude that extracts of Rosmarinus officinalis, Ocinum basilicum, Angelica officinalis may have the protective effect against pharyngeal and vaginal candidosis.

BIBLIOGRAPHY