

abstract number: 04089

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Antifungal activities of bitter orange on resistant Candida sp.

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Background: Preparations of bitter orange (*Citrus aurantium*) are used by tribal populations throughout the globe but its efficacy as an anti-fungal agent particularly on non-albicans *Candida* sp. is largely unknown. In view of the emergence of non-albicans *Candida* sp. which are resistant to most anti-fungal agents it is necessary to find out newer nontoxic anti-fungal agents which may be effective against them.

Methods: Alcoholic extracts of bitter orange leaves were prepared following standard pharmacological protocols and different aqueous concentrations of the extracts were prepared after evaporating the alcohol and they were challenged in lawn cultures of six wild strains of *Candida albicans*, eleven wild strains of *Candida tropicalis* and two wild strains of *Candida parapsilosis* by gel diffusion techniques, Most *Candida* sp. Were resistant to different anti-fungal agents.

Results: It was found that crude extract of bitter orange could inhibit growth of all *Candida* sp. (100%) even in concentrations of 10 micrograms/ml.

Conclusions: Bitter orange appears to be a good anti-fungal agent effective on *Candida* sp, It appears to be non-toxic as it is widely used in tribal populations in large quantities.