

In vitro activity of tea tree oil against *Candida albicans* mycelial conversion and other pathogenic fungi.

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J Chemother. 13: 377-83; 2001

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The antifungal activity of *Melaleuca alternifolia* Maiden (Myrtaceae) essential oil against yeasts (*Candida* spp., *Schizosaccharomyces pombe*, *Debaryomyces hansenii*) and dermatophytes (*Microsporum* spp. and *Tricophyton* spp.) is reported. We focused on the ability of tea tree oil to inhibit *Candida albicans* conversion from the yeast to the pathogenic mycelial form. Moreover we carried out broth microdilution test and contact tests to evaluate the killing time. *M. alternifolia* essential oil inhibited the conversion of *C. albicans* from yeast to the mycelial form at a concentration of 0.16% (v/v). The minimum inhibitory concentrations (MICs) ranged from 0.12% to 0.50% (v/v) for yeasts and 0.12% to 1% (v/v) for dermatophytes; the cytotoxic activity was generally expressed at the same concentration. These results, if considered along with the lipophilic nature of the oil which enables it to penetrate the skin, suggest it may be suitable for topical therapeutic use in the treatment of fungal mucosal and cutaneous infections.