Antimycotic activity of Melaleuca alternifolia essential oil and its major components.

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AIMS: The aim of this study was to analyse the antimycotic properties of Melaleuca alternifolia essential oil (tea tree oil, TTO) and its principal components and to compare them with the activity of 5-fluorocytosine and amphotericin B. METHODS AND RESULTS: The screening for the antimycotic activity was performed by serial twofold dilutions in Roswell Park Memorial Institute medium with the inclusion of Tween-80 (0.5%). TTO and terpinen-4-olo were the most active compounds. CONCLUSIONS: The majority of the organisms were sensitive to the essential oil, with TTO and terpinen-4-olo being the most active oils showing antifungal activity at minimum inhibitory concentration values lower than other drugs. SIGNIFICANCE AND IMPACT OF THE STUDY: This study provides a sample large enough to determine the antifungal properties of TTO and terpinen-4-olo and suggests further studies for a possible therapeutic use.