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Effects of natural products and essential oils on pathogenic fungi

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Despite the harsh conditions and limited water resources of the Arabian Peninsula, the plants that live in this environment contain a variety of bioactive compounds and have been used for thousands of years in traditional medicines. Our investigation of the ethanol extracts and essential oils of *Azadirchta indica* and *Phoenix dactylifera* (ajwa) on *Candida albicans* (ATCC CA 10231), *Candida tropicalis* (ATCC CT 2697), *Cryptococcus neoformans* (ATCC CT 2697), *Trichophyton mentagrophytes* (ATCC 9533) and *Microsporum canis* (isolated from KFMH), as reflected in the minimum inhibitory concentrations and minimum fungicidal concentrations. Further, the detection of glucose and dry weight indicates a loss of energy in the compound of *C. albicans* and Confocal laser scanning microscopy also showed a loss in optional permeability of the cytoplasmic membrane. The bioactive compounds in the ethanol extracts and essential oil of *P. dactylifera* may offer a less expensive and natural alternative to pharmaceuticals.

Biography

Awatif Al-Judaibi is a Lecturer at King Abdulaziz University, KSA. She was also an Assistant, Associate Professor in the Department of Biological Sciences-Microbiology section, and Dean's Assistant in the Deanship of Community Services & Continuing Education-Rabigh brunch (KAU). She has skills and experience in the antibacterial activity and molecular microbiology research and she is the ASM Country's Ambassador of Saudi Arabia. Recently she was awarded a patent from King Abdulaziz City for Science and Technology KACST.

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