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New perspectives of *Juglans regia* L. phytochemicals against *Candida* species

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Opportunistic fungal infections have deserved special relevance in the last decades, presenting itself, a serious problem in terms of public health. Despite *Candida albicans* was considered the main agent responsible for those infections, other non-*albicans* *Candida* species have also been described in the last years [1-3]. Most of the species are susceptible to antimicrobial drugs, but recently it has been observed a growing number of microorganisms with drug resistance. Therefore, the discover/use of alternative therapies is crucial [4].

Juglans regia L. (walnut) leaves are commonly used in traditional medicine as antiseptic, antimicrobial and anti-inflammatory [5]; those benefits could be related with its richness in phenolic compounds [6]. In the present work, the antifungal potential of the hydroalcoholic extract prepared from walnut leaves was evaluated against a total of nineteen *Candida* strains (from the species: *C. albicans*, *C. glabrata*, *C. parapsilosis* and *C. tropicalis*), using the disc diffusion halo assay.

All the tested strains were sensible to the plant extract. The obtained values of the inhibitory zones ranged between 0.9-1.4 cm, being the halo maintained after 48h. The observed antifungal activity is certainly related to the phenolic compounds previously determined in the extract [6]: five phenolic acid derivatives-caffeoylquinic and p-coumaroylquinic acid derivatives, two dimers and one trimer of procyanidins, twelve flavonols- quercetin, myricetin and kaempferol derivatives, and five taxifolin O-pentoside isomers; 3-O-caffeoylquinic acids and quercetin O-pentoside were the main phenolic compounds. Further studies are necessary in order to elucidate the most active compounds and the specific role of each one.

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