

Antifungal activity of the Algerian *Lawsonia inermis* (henna)

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Abstract/Résumé : Context: *Lawsonia inermis* Linn. (Lythraceae) or henna has been used since the earliest times as a medicine, preservative, and cosmetic. It has long been recommended in traditional medicine as an astringent, purgative, and abortifacient. Objective: Lawsonsone and six extracts of *L. inermis* plant, used by Algerian traditional healers to treat infectious diseases, were screened for their antifungal activity against filamentous fungi. Materials and methods: Water and five organic extracts - DMSO, ethanol, chloroform, ethyl acetate, and di-ethyl ether - of *L. inermis* leaves, collected in the area of Adrar (Algeria), were prepared by soaking 25 g of powdered plant in 100 mL of solvent. The extracts were screened for antifungal activity using the poisoned food technique against five filamentous fungi. Results: Results demonstrated that the best yield (8.03%) was obtained with the ethanol extract. The commercial lawsonsone showed potentially interesting MICs against the strains *Fusarium oxysporum* (12 µg/mL) and *Aspergillus flavus* (50 µg/mL). The ethanol extract showed the only interesting MIC (230 µg/mL of crude extract) against the strain *F. oxysporum* compared with other extracts. Discussion and conclusion: These results suggest that the Algerian *L. inermis* plant has antifungal activity that can be related to the presence of lawsonsone in the leaves plant. The results can be exploited largely in research of new antifungal drugs.

Keywords/Mots clés:

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