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: Lawsone 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 lawsone 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 lawsone in the leaves plant. The results can be exploited largely in research of new antifungal drugs.

Keywords/Mots clés:


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