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Effectiveness of the Flavonoids Isolated from Thymus inodorus by Different Solvents against Some Pathogenis Microorganisms

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Abstract : The aim of this study was to investigate the antimicrobial activity of flavonoids isolated from the aerial part of a medicinal plant which is Thymus inodorusby the middle agar diffusion method on following microorganisms. We have Staphylococcus aureus, Escherichia coli, Pseudomonas fluorescens, AspergillusNiger, Aspergillus fumigatus and Candida albicans. During this study, flavonoids extracted by stripping with steam are performed. The yields of flavonoids is 7.242% for the aqueous extract and 28.86% for butanol extract, 29.875% for the extract of ethyl acetate and 22.9% for the extract of di - ethyl. The evaluation of the antibacterial effect shows that the diameter of the zone of inhibition varies from one microorganism to another. The operation values obtained show that the bacterial strain P fluoresces, and 3 yeasts and molds; A. Niger, A. fumigatus and C. albicansare the most resistant. But it is noted that, S. aureus is shown more sensitive to crude extracts, the stock solution and the various dilutions. Finally for the minimum inhibitory concentration is estimated only with the crude extract of Thymus inodorus flavonoid.Indeed, these extracts inhibit the growth of Gram + bacteria at a concentration varying between 0.5% and 1%. While for bacteria to Gram -, it is limited to a concentration of 0.5%.

Keywords : antimicrobial activity, organic extracts, aqueous extracts, Thymus numidicus
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