

Identification of the Alkaloids of the Belladone (*Atropa belladonna* L.) and Evaluation of Their Inhibitory Effects Against Some Microbial Strains

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Abstract : The present work consists of the study of the bio-ecology and the therapeutic effects of the belladone (*Atropa belladonna* L.). It is a medicinal plant of the Solanacées family, herbaceous, robust 0.5 up to 1.50 m high. The phytochemical analysis of leaves revealed alkaloids, tannins, catechin, coumarins, mucilages, saponins, starch, and reducing compounds. The experimental study concerns the extraction and characterization of belladonna alkaloids. Analysis of the purified extract by staining tests confirmed the presence of tropane alkaloids. The dosage chromatography revealed the presence of components that have been identified atropine, scopolamine and hyoscyamine. Evaluation of antimicrobial and antifungal alkaloids from the methanol extract and aqueous extract of belladonna on pathogenic germs showed a positive bactericidal against strains of *Escherichia coli* and *Staphylococcus aureus*. Our preliminary results allow us an overall assessment of the medicinal value of *Atropa belladonna*.

Keywords : belladone, alkaloid, antibacterial activity, antifungal activity

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