



CHEMICAL INVESTIGATION OF *Dolichandra unguis-cati* CRUDE EXTRACT AND ANTIFUNGICAL ACTIVITY EVALUATION.

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Dolichandra unguis-cati or *Macfadyena unguis-cati* (Bignoniaceae) is a climbing species found in the Americas. Also known as “cat’s claw,” “bat’s claw,” “bat vine,” and “golden vine,” it is used in folk medicine for the treatment of hepatitis, venereal diseases, snake bites, malaria, dysentery, rheumatism, and inflammatory conditions. Studies have indicated the presence of saponins, flavonoids, triterpenes, lignans, and phenylethyl glycosides. The chemical investigation of Brazilian medicinal plants is relevant for drug discovery, biodiversity conservation, and sustainable development, aligning with the United Nations Sustainable Development Goals (SDGs), particularly those related to health, innovation, and ecosystem preservation. This study aimed to investigate the chemical composition of *D. unguis-cati* leaf extract, isolate pure compounds, and evaluate their antifungal activity. The methods employed included standard phytochemical techniques and analysis by Ultra-Performance Liquid Chromatography coupled with High-Resolution Mass Spectrometry (UPLC-HRMS/MS). The ions obtained were analyzed through Global Natural Products Social Molecular Networking (GNPS), which, based on fragmentation patterns, enabled the annotation of the following compounds: quinic acid, verbascoside, isoverbascoside, baicalin, and oroxylin glucuronide. Among these compounds, verbascoside had already been previously reported in this species. Subsequently, the *n*-butanol fraction allowed the isolation of this phenylethyl glycoside by preparative HPLC, and its chemical structure was identified by NMR analysis. The subfractions and the crude extract were also tested for sensitivity assays against *Candida albicans* ATCC 10231, *C. glabrata* (*Nakoseomyces glabratus*) ATCC 15126, *C. krusei* (*Issatchenkia orientalis*) ATCC 14243, *C. metapsilosis* ATCC 96143, *C. orthopsilosis* ATCC 96141, *C. parapsilosis* ATCC 90018, *C. rugosa* ATCC 40285, and *C. tropicalis* ATCC 13803. The best MIC (Minimum Inhibitory Concentration) values were obtained for the *n*-butanol and ethyl acetate subfractions. This investigation and the study of medicinal plants highlight the importance of dereplication in metabolomics to optimize the identification of already annotated compounds.

Keywords: Chemical composition, biodiversity, antifungal, molecular network, dereplication

