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GC-MS Based Profiling of Anti-Analgesic Components in Creeping Launaea [Launaea Procumbens (Roxb.) Ramayya & Rajagopal]: In Silico and In Vivo Approaches

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ABSTRACT

The pharmacists use Launaea procumbens, because it is a good potential for Galenical's. The current investigation was focused on pharmacognostic characterization of the various parts of L. procumbens (Roxb.) Ramayya Rajagopal, family Asteraceae. The herb of L. procumbens frequently employed to relieve fever, pain and inflammation. The goal of this work is to develop standardization parameters of L. procumbens in in vivo, in vitro and in silico analysis. The ethanolic extract of L. procumbens has an analgesic, anti-inflammatory, anti-microbial and molecular docking consequence. In the in vitro studies, the egg albumin protein denaturation assay and antimicrobial activity was performed to check the inhibition of protein and zone of inhibition of microbial growth. The three triterpene compounds; lupeol, alpha amyrin and beta amyrin were identified from the L. procumbens ethanolic extract (LPEE) in gas chromatography mass spectrometry (GCMS) analysis. These compounds were used as a ligands, interact them with proteins cyclooxygenase 2 (COX2) and interleukin 17 (IL-17), the indomethacin were used as a reference drug (ligand).

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