

Antinociceptive and Anti-Inflammatory Effects of Saponin and Iridoid Glycosides from *Verbascum pterocalycinum* var. *mutense* Hub.-Mor.

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The anti-inflammatory and antinociceptive properties of four major compounds from the flowers of *Verbascum pterocalycinum* var. *mutense* were investigated. Saponin glycosides called ilwensisaponin A and C and iridoid glycosides known as ajugol and picroside IV were isolated from the methanolic extract. A dose-related anti-inflammatory and antinociceptive response were obtained in this study at doses of 100 and 200 mg/kg. The results of the evaluation of the anti-inflammatory activity induced by carrageenan and PGE₁ showed that this species possesses active constituents that could diminish the cyclooxygenase activity. No effects were observed in the 12-*O*-tetradecanoylphorbol-13-acetate (TPA)-induced ear edema model. Our results support the anti-inflammatory and analgesic effects of *Verbascum pterocalycinum* var. *mutense*. Ilwensisaponins A and C could explain in part the anti-inflammatory and analgesic activities of this species. Although antinociceptive and anti-inflammatory activities of ajugol and picroside IV were found insignificant in the statistical analysis, ilwensisaponin A and C showed notable activity without inducing any apparent acute toxicity as well as gastric damage.

Key words: *Verbascum pterocalycinum* var. *mutense*, Anti-Inflammatory Activity, Antinociceptive Activity