

Isolation of Triterpenes and an Acetophenone Derivative with Antispasmodic Activity from *Euphorbia milli* Desmoul. ex Boiss. (Euphorbiaceae)

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SUMMARY. The aerial parts of *Euphorbia milli* Desmoul. ex Boiss. were studied. The results revealed the presence of β -amyirin acetate, α -amyirin acetate and 2,4-dihydroxy-6-methoxyacetophenone. The last two compounds have not been yet reported for this plant. Considering the similarity of acetophenone derivative with those of xanthoxylone, it was tested as antibacterial, antifungal and antispasmodic exhibiting only a moderate antispasmodic activity.

RESUMEN. "Aislamiento de Triterpenos y un Derivado de la Acetofenona con Actividad Antiespasmódica a partir de *Euphorbia milli* Desmoul. ex Boiss. (Euphorbiaceae)". Fueron estudiadas las partes aéreas de *Euphorbia milli* Desmoul. ex Boiss. Los resultados mostraron la presencia de acetato de β -amirina, acetato de α -amirina y 2,4-dihidroxi-6-metoxiacetofenona. Los dos últimos compuestos no fueron aún aislados en esta planta. La acetofenona sustituida, que es similar a xantoxilina, fue experimentada como antibacteriana, antifúngica y antiespasmódica, exhibiendo solamente una moderada actividad antiespasmódica.

INTRODUCTION

Several species of the genus *Euphorbia* (Euphorbiaceae) are widely distributed in Brazil. Some of these plants are used in folk medicine against different disorders and pharmacological reports have confirmed many medicinal properties^{1,2}. We have previously investigated chemical and pharmacologically several plants of this family, including *Sebastiania schottiana*³, *Phyllanthus sellowianus*^{4,5}, *Aleurites moluccana*⁶, among others⁷.

Euphorbia milli, known as "Coroa de Cristo" is used widely in the gardens as ornament. In some regions of the Brazil its latex is used to control the schistosomiasis⁸. Several classes of compounds have been described for *E. milli* Desmoul. ex Boiss., including terpenes⁹, alkaloids¹⁰ and phorbol derivatives¹¹.

In the present study, we have reported the isolation of two triterpenes and an acetophenone derivative. The biological activities of the last compound were evaluated in some experimental models.

KEY WORDS: Antispasmodic activity, *Euphorbia milli*, 2,4-dihydroxy-6-methoxyacetophenone, β and α -amyirin acetate.

PALABRAS CLAVE: Actividad antiespasmódica, *Euphorbia milli*, 2,4-dihidroxi-6-metoxiacetofenona, Acetato de β -amirina, Acetato de α -amirina.