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ABSTRACT

Ethnopharmacological relevance

Croton conduplicatus Kunth (Euphorbiaceae) is a Brazilian aromatic medicinal plant, widely known as “quebra-faca”. In folk medicine, its leaves and stem-barks are used as a natural analgesic for the treatment of headaches.

Aim of the study

In this study, we describe for the first time the neuropharmacological potential of the essential oil obtained from the leaves of *Croton conduplicatus* (EO) in experimental models of pain, anxiety and insomnia. The mechanisms of action involved in these activities were also investigated.

Material and Methods

Different experimental models were used to evaluate the antinociceptive (acetic acid, formalin-induced nociception and hot plate tests), anxiolytic (elevated plus maze and hole board tests) and sedative (thiopental-induced sleeping time) effects of EO in mice. EO was evaluated in three different doses (25, 50 and 100 mg/kg, i.p.) and compared with positive and negative controls in all experimental protocols. When appropriate, animals were pretreated with pharmacological antagonists