Ascaridol possui efeito contra o câncer: óleo essencial do Croton regelianus (velame de cheiro)

Antitumor activity of the essential oil from the leaves of Croton regelianus and its component ascaridole.


Source
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Abstract

Croton regelianus Muell. Arg., popularly known as 'velame-de-cheiro', is a native plant from the Northeast of Brazil used in folk medicine to treat diseases of different kinds, including malignant tumors. In this study, the in vitro and in vivo antitumor effects of the essential oil from the leaves of C. regelianus and ascaridole, one of the main constituents, were investigated. In vitro, the essential oil and ascaridole displayed cytotoxicity, showing IC(50) values in the range of 22.2 to 48.0 microg/ml in HL-60 and SF-295 cell lines for the essential oil, and 6.3 to 18.4 microg/ml in HL-60 and HCT-8 cells lines for ascaridole, respectively. The in vivo study, using sarcoma 180 as a tumor model, demonstrated inhibition rates of 28.1 and 31.8% for essential oil, at the 50 and 100 mg/kg, while ascaridole inhibition rates were 33.9% at 10 mg/kg and 33.3% at 20-mg/kg doses. Histopathological examination showed that the organs were only weakly affected by the treatment. In conclusion, ascaridole has an interesting antitumor activity in sarcoma 180 murine model, probably related to the described cytotoxic activity, and, moreover, its presence in the essential oil from the leaves of C. regelianus could explain, at least in part, the ethnopharmacological use of this plant in the treatment of cancer.

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