B185 Cytotoxic evaluation of diterpenes from *Croton malambo*

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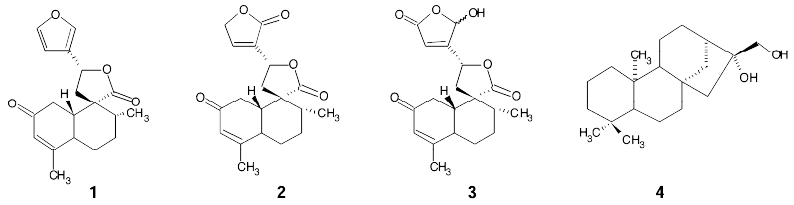
Croton malambo Karst (Euphorbiaceae) is small tree growing in the north-east region of Venezuela, where is called "palomatias" (1). Just as other species of the *Croton* genus it is widely used in traditional Venezuelan medicine. An aqueous decoction of the bark is employed as remedy for arthritis as antiinflammatoy, analgesic and also in the treatment of diabetes and gastric ulcers. In the course of this research, we have previously investigated the antinociceptive and antiinflamatory activity of an aqueous extract. Analysis of the dichloromethane extract of the aerials parts of *C. malambo*, led to the isolation and identification of the four diterpenes: *t*-dehydrocrotonin (**1**), cajucarinolide (**2**) isocajucarinolide (**3**), together with 16α, 17β-kauranediol (**4**) (2,3). The structural elucidation was determined by spectroscopy data. In this work we present the results of the evaluation of these extracts *in vitro* against several tumoral cell lines.



1 **2** **3** **4**

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B186 Pharmacological activity and in vitro toxicity of extracts from *Tynanthus panurensis* (Bur.) Sandw. "clavo huasca" (Bignoniaceae) barks

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Four extracts from *Tynanthus panurensis* (Bur.) Sandw. (Bignoniaceae) bark were tested to determinate their possible cytotoxic effects, bacterial growth inhibition potential, and antinociceptive and antiinflammatory activities. Barks were collected in Iquitos (Peru) and neutral, moderately polar, basic and polar extracts were prepared according to a general procedure for extracting plant tissues and fractionating into different classes according to polarity (1). Cytotoxicity was evaluated by MTT assay over human HeLa, HT29 and PC3 cells and hamster CHO cells. The extracts were tested against *E. coli*, *P. aeruginosa*, *S. aureus*, *E. faecalis*, *S. typhymurium*, *A. niger* and *C. albicans* growth by the microdilution method, the results being expressed by Minimal Inhibitory Concentration (MIC). Antinociception was assessed by acetic acid writhing in male OF1 mice, and the antiinflammatory activity was determined with the carrageenan-induced hind-paw edema method in male Sprague-Dawley rats. The only significant cytotoxic effect was found to be moderate and was exhibited by the basic extract against HeLa and CHO cells (IC_{50} values were 4,95 and 6,72 µg/mL respectively); incubation with the highest concentration of the polar extract was devoid of any effect against the four cellular lines tested. All extracts showed high MIC values in antimicrobial tests (MIC>50 µg/mL) and then should not be considered significant growth inhibitors. The polar extract exhibited a considerable degree of antinociceptive activity, and both the neutral and polar extracts caused edema reductions comparable (and even superior in the case of polar extract) to indomethacin (5 mg/kg). Further studies of the active principles contained in the polar extract would be then advisable due to the positive benefit/risk ratio depicted by the combined pharmacotoxicological studies; quaternary alkaloids and N-oxides are found to be present in this extract and could be responsible for the described effects.

References: 1. Harborne, J.B. (1998) Phytochemical Methods, 3rd. end, Chapman and Hall, London.