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ANTI-LEISHMANIAL ACTIVITY OF CLERODANE DITERPENE FROM *Casearia sylvestris*.

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Casearia sylvetris Swartz (Salicaceae), is a plant known as "guaçatonga" and "chá de bugre" and is described with anti-inflammatory, anti-ulcer, anti-ophidian and antitumor properties [1]. It has valuable pharmacological arsenal because of the presence of clerodane diterpenes known as casearins A-X and casearvestrins A-C that have been described as compounds with anticancer activity [1]. Besides them, a new derivative, named *dinor* casearin X, isolated from leaves showed anti leukemic properties [2] and antiparasitic effects of casearins A, B, G and J was established [3]. Leishmaniasis is a tropical disease caused by the *Leishmania* protozoa and considered a neglected disease in underdeveloped and developing countries. The treatment, based in chemotherapy drugs, has many undesirable side effects and high toxicity, reinforcing the need for new alternative drugs for the standard ones. [4]. In this work, the hexane and AcOEt phases of MeOH extract from the leaves of *Casearia sylvestris* were evaluated to antileishmanial activity. The AcOEt phase showed activity against promastigotes *L. amazonensis* (etiologic agent of tegumentar leishmaniasis), thus the bioguided chromatographic fractionation afforded the clerodane diterpene, identified by RMN ^{1}H, ^{13}C and mass spectra as casearin D (Figure 1). This substance showed IC_{50} of 15.28 µg/mL against promatigotes of *L. amazonensis*. Additionally the hexane phase was evaluated against promastigotes of *L. infantum* (etiologic agent of visceral leishmaniasis) and chromatography fractionation led to active fractions that kill 100% of parasites. Thus these fractions are still being subjected to others steps of chromatographic fractionation to isolate the active substances. These results suggest that *C. sylvestris* is a promising tool for a possible development of new drugs with anti-leishmanial activity.

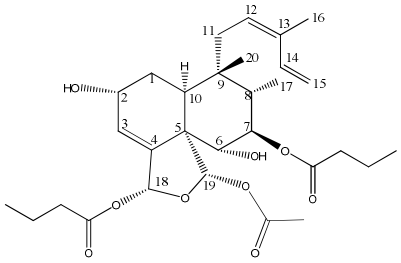

Figure 1: Structure of casearin D

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