10th Brazilian Conference on Natural Products
XXXVI RESEM
4-7 November 2025, Belo Horizonte, MG, Brazil

Section: 03

ISOLATED FLAVONOIDS AND QUASSINOIDS AND ANTIPLASMODIAL ACTIVITY OF FRACTIONS FROM *HOMALOLEPIS CEDRON* (SIMAROUBACEAE)

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Malaria is the best-known parasitic disease in the world. It is caused by a group of protozoa from the genus *Plasmodium* and transmitted through the bite of female mosquitoes of the genus *Anopheles*. The increasing resistance of malaria parasites to currently available antimalarials motivates the search for secondary metabolites from plants with antiplasmodial properties. *Homalolepis cedron* (Simaroubaceae) is popularly known as "pau-para-tudo". This species is used for the treatment of malaria by different peoples of the Amazon region, such as Afro-Brazilian communities descended from quilombos in the municipality of Oriximiná-PA. From *H. cedron*, the antiplasmodial quassinoids cedronin, chaparrinone and simalikalactone D have been isolated in work by others. This work aims to identify new substances from *H. cedron* with antiplasmodial potential. Antiplasmodial tests against the multidrug resistant K1 strain of *Plasmodium falciparum* from continuous *in vitro* culture were conducted at the Malaria and Dengue Laboratory/INPA). Decoction of *H. cedron* leaves followed by liquid-liquid partitioning of the resulting H_2O extract provided $CHCl_3$ (1RNFCl09), EtOAc (1RNFAc09) and H_2O (1RNFAqS09) fractions that showed significant inhibitory/antiplasmodial activity (IC_{50} = 3.72, 1.03 and 1.88 mg/mL, respectively). The leaf H_2O-acetone extract was chromatographed on sephadex-LH-20 and then reverse-phase silica (C-18) which led to the isolation of the flavonoids isovitexin, kaempferol-3-*O*-glucoside, quercetin-3-*O*-glucoside and vitexin. Normal phase column chromatography on the $CHCl_3$ extract of the root wood provided the quassinoids cedronin and brucein D. All substances were identified based on their 1D and 2D NMR, HRMS and MS/MS spectrometric properties and comparison with literature data. The four flavonoids and brucein D were isolated for the first time from *H. cedron.* This is also the first report on the antiplasmodial activity of fractions of *H. cedron* leaves. The authors thank the support of their institutions and the financial support of CAPES, CNPQ, and FAPEAM-Ed. 13/2022 Produtividade C, T & I.

Keywords: *brucein D, cedronin, isovitexin, kaempferol-3-O-glucoside, quercetin-3-O-glucoside, vitexin.*