

B173 Antiviral activity of plants extracts to polio- and herpesvirusR.E.C. Linhares^a, A.M.M. Felipe^a, C. Nozawa^a, W.A. Roman Jr^b and J.C.P. de Mello^c.^a Departamento de Microbiologia. Universidade Estadual de Londrina, Caixa Postal 6001, 86051-990, Londrina, PR, Brazil. ^b Programa de Pós-Graduação em Ciências Farmacêuticas. UNESP - Campus Araraquara, Rodovia Araraquara-Jaú km 1, Araraquara, SP, Brazil. ^c Programa de Pós-Graduação em Ciências Farmacêuticas. Universidade Estadual de Maringá, Av. Colombo 5790, 87020-900, Maringá, Pr, Brazil.

Crude extract (CE), aqueous and ethyl acetate fractions (AqF, EtoAc) from *Stryphnodendron adstringens* (Martius) Coville, Leguminosae, "barbatimão" and *Guazuma ulmifolia* Lam., Sterculiaceae, "mutamba" stem barks, and partially purified fractions I and II from *Heteropteris aphrodisiaca* O. Mach., Malpighiaceae, "nó-de-cachorro" roots, were assayed for *in vitro* antiviral activity to polio- and bovine herpesvirus. The inhibition of virus replication, in Hep-2 cell cultures, was monitored by plaque assay, reduction of virus titer (TCID₅₀) and, in some cases, by immunofluorescence assay. Barbatimão's CE, AqF and EtoAc inhibited more than 90.0% the replication of poliovirus and its CE inhibited herpesvirus in 74.3%. On the other hand, mutamba's CE and AqF inhibited poliovirus in approximately 90%, while EtoAc in 65.0%. Both AqF and EtoAc from mutamba inhibited the replication of herpesvirus in 99.0%, however no inhibition was observed with the correspondent CE. As far as mutamba's AqF and EtoAc are concerned, we demonstrated a reduction from 80.0 to 84.0% in the number of poliovirus-infected and treated cells presenting virus-specific fluorescent foci, in comparison to control infected and non treated cells. Fractions I and II of "nó-de-cachorro" roots presented activity for poliovirus inhibiting its replication in more than 90.0%. Moreover, fraction I inhibited the number of poliovirus-infected cells presenting virus-specific fluorescent foci at the concentration of 50 µg/mL. In conclusion, we demonstrated that "barbatimão" and "mutamba" extracts, as well as, "nó-de-cachorro" partially purified fractions presented antiviral activity for polio- and bovine herpesvirus. Studies to find out the mechanisms of action of these extracts were not carried out, for the time being.

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B174 Pharmacognostic study and antibacterial activity of the stem bark extract *Stryphnodendron obovatum* Benth. (Leguminosae)A.C.C. Sanches^a, S.R. Mundo^b, P.E.R. Silva^b, T. Ueda-Nakamura^b, B.P. Dias Filhob^b, C.V. Nakamura^b and J.C.P. de Mello^b^a Programa de Pós-Graduação em Ciências Farmacêuticas UNESP - Rodovia Araraquara-Jaú km 1, Araraquara-SP - Brazil. ^b Programa de Pós-Graduação em Ciências Farmacêuticas, Universidade Estadual de Maringá (UEM), Av. Colombo, 5790, BR - 87020-900, Maringá-PR - Brazil.

Stryphnodendron obovatum Benth. (Leguminosae), "barbatimão de folha miúda", is a native species from Brazilian "cerrado" (1), containing higher concentration of phenolic substances in stem bark. Popularly stem bark decoctions are use to seat bath, inflammations, infections and, as a scarless. The following pharmacopeic tests were carried out with the collected stem bark (Feb/2001) (2): a) loss on drying: 12.8%; b) extractives content: 28.63%; c) total tannin content: 15.03%. The turbo extract acetone: water (7:3; V/V - FAA) was partitioned with ethyl acetate (EtOAc), leaving over the water fraction (FW). The EtOAc was fractionated through the column chromatography (Sephadex®-LH20) being evaluated with the TLC. The subfraction F8 was rechromatografied in the same support and, the isolated substances were acetylated and submitted to NMR 1D (¹H, ¹³C), 2D (COSY), MS analyses and the comparison with the literature were identified as galocatechin and epigallocatechin (3). The FAA, EtOAc, and the FW, were submitted of the antibacterial activity test through the microdilution method with the aim to determinate of the Minimum Inhibitory Concentration (MIC) and Minimum Bactericide Concentration (MBC) (4) to the samples of *Staphylococcus aureus* (ATCC25923), *Bacillus subtilis* (ATCC6623), *Pseudomonas aeruginosa* (ATCC15442) and *Escherichia coli* (ATCC25922). Then, the fractions FAA, EtOAc and FW presented MIC of 125, 125 and 125 µg/mL and MBC of 250, 500 and 500 µg/mL to *S. aureus*, while the others samples had MIC and MBC higher than 1000 µg/mL. The results obtained through the quality control allowed us to draw profile of the plant collected during the Brazilian summer. The preliminary chemical study shows the presence of the flavan-3-ols and the EtOAc presents activity against *S. aureus* in the concentration of 125 µg/mL (MIC) and 500 µg/mL (MBC).

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