Phytochemical studies of *Himatanthus attenuatus* roots

A. S. Ramos¹, S. L. Basso², J. L. P. Ferreira¹,³, J. R. A. Silva⁴, A. C. F. Amaral¹

¹Lab. Plantas Medicinais e Derivados, Farmanguinhos, FIOCRUZ; ²Lab. Produtos Naturais, FUNTAC; ³Fac. Farmácia, UFF; ⁴Dep. de Química, UFAM

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**Introduction:** The genus *Himatanthus* has been popularly used in northern region of Brazil as antitumor, anticancer, anti-inflammatory and anti-hypertensive (Silva et al., Quim. Nova, v. 21, 702, 1998; Amaral et al., Pharmacogn. Rev., v. 1, 305, 2007). Despite the interest in the genus, there are few studies about the species *Himatanthus attenuatus* (Benth.) Wood. In this work, extracts of *H. attenuatus* were analyzed by gas chromatography coupled to a mass spectrometer (GC-MS).

**Experimental:** Root samples of *H. attenuatus* were collected in Acre state (Brazil). Finely triturated roots were successively submitted to maceration in hexane and dichloromethane. After evaporation of solvents, hexane and dichloromethane extracts were analyzed by GC-MS, with ionization by electronic impact (70 eV), under following conditions: DB-5MS column at temperatures from 70 to 305°C (5°C/min) and helium as carrier gas (0.5 mL/min). Data were represented as mean of three analyses and standard deviation.

**Results/Discussion:** The yield of hexane extract was 1.9% and the main substances determined by measuring the relative area of the chromatogram peaks were alpha-amyrin acetate (79.3% ± 0.93%), beta-amyrin acetate (17.0% ± 1.84%), isoplumericine (0.62% ± 0.13%) and plumericine (0.14% ± 0.07%). The dichloromethane extract was obtained with 1.1% of yield. This extract showed 20.9% ± 0.98% of isoplumericine, 26.3% ± 0.69% of plumericine and 12.1% ± 1.41% of alpha-amyrin acetate. The bioactive iridoids isoplumericine and plumericine have also been found in *H. sucuuba* (Silva et al., Acta Amazonica, v. 37, 119, 2007), the most studied species of the genus. This is the first report on the phytochemical study of *H. attenuatus*.

**Conclusions:** Until now, the results indicated similar chemical composition between *H. attenuates* and *H. sucuuba*. The highest concentrations of isoplumericin and plumericin found in the dichloromethane extract of *H. attenuatus* roots showed that this extract could be an important source of these substances.

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