B161 The effect of *Aster squamatus* (Spreng.) Hieron (Asteraceae) extracts on gastrointestinal propulsion

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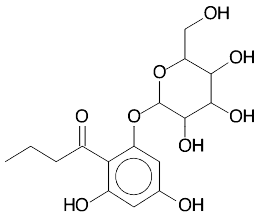
Aster squamatus (Asteraceae) is a plant that grows in South America (Brazil) where it is locally called "erva milagrosa". This plant is commonly used as an antidiarrhoeic agent, and its infusions seem to increase intestinal water and ion absorption as well as gastrointestinal propulsion. Ethanolic and aqueous crude extracts of *A. squamatus* have low acute toxicity, and the use of infusions for one month induced only minor changes on some serum biochemical parameters (1,2). Therefore, the objective of this study was to evaluate the effect of crude hydroalcoholic extracts (CHE) of the root, stalk, and leaf of this plant, as well as of fractionated extracts and of the new phenolyc compound, 1-[2,4-dihydroxy-6-(3,4,5-trihydroxy-6-hydroxymethyltetrahydro-2H-2-pyranyloxy)phenyl]-1-butanone, isolated from the ethyl acetate fraction from the stalk, on the gastrointestinal propulsion of mice. The dry ethanolic extract was partitioned between water and *n*- hexane, $CHCl_3$, ethyl acetate and *n*-butanol, respectively. A portion of the ethyl-acetate fraction was showed more activity and it was chromatographed on a silica gel column with a gradient of $CHCl_3$-MeOH to yielded **1**. The structure **1** was determined on the basis of spectroscopic data (IR, ^{1}H- and ^{13}C-NMR and MS). Gastrointestinal propulsion was investigated using a charcoal suspension according to the method of Almeida (3) and all values are expressed as the mean ± SEM percentage of the distance travelled by the charcoal with relation to the total length of the animals small intestine.



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Acknowledgements: FAPERGS, CNPq.

References: 1. Karnikowski, (1996). PHD Tesis, Univ. Federal de Sta Ma-RS. **2.** Meneghetti et al. (1999) Rev. Br. de Toxicol. 68: 315-319.

B162 Antibacterial cyclopeptide alkaloids from the root bark of *Condalia buxifolia*

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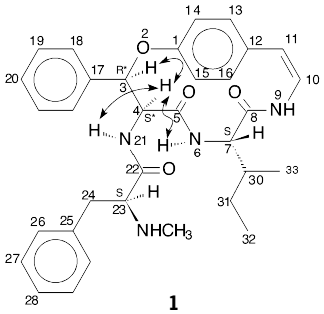
A new cyclopeptide alkaloid, named condaline-A (**1**), was isolated from the root bark (basic ether extract) of *Condalia buxifolia* Reissek (Rhamnaceae), along with the known alkaloids adouetine-Y', scutianine-B, and scutianine-C. The structures were determined by spectroscopic studies (IR, ^{1}H- and ^{13}C-NMR, MS). In this work, the antibacterial activity of each alkaloid was determined by direct bioautography (1), against *Staphylococcus aureus*, *Staphylococcus epidermidis*, *Micrococcus luteus* (Gram-positive), *Klebsiela pneumoniae*, *Salmonella setubal*, and *Escherichia coli* (Gram-negative) bacteria. Additionaly, the absolute stereochemistry of the C-7 amino acid (isoleucine) and of the *N*-methyl phenylalanine side-chain of 1 was determined by chiral phase gas chromatography (CPGC) using 3-pentyl-2,6-dimethyl-β-cyclodextrine as stationary phase (2). The *N*-trifluoroacetylated methyl ester of the D, *L*-mixture and pure *L*-form were used as CPGC standards. By comparing the R_ts of these standards with those of the corresponding amino acid from the hydrolysate of dihydrocondaline-A, it was possible to assign the absolute configuration unambiguously. In condaline-A, *N*-methyl phenylalanine and isoleucine both have the *L* (S)-configurations.



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Acknowledgements: FAPERGS, CNPq

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