



***Strychnos pseudoquina* EXTRACTS SHOWS FIBROBLAST PROLIFERATION ACTIVITY IN A BIOGUIDED ASSAY**

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Strychnos pseudoquina is a wild Brazilian native bush popularly known as quina do campo, quina cruzeiro or quina do sertão and has been used in folk medicine as antimalarial, febrifuge and also in gastric diseases and wound healing. The present work aimed to investigate the capacity of *S. pseudoquina* extracts on fibroblast proliferation in an *in vitro* bioguided assay, since its use in folk medicine is associated with this biological property. Bark and leaf extracts were obtained by percolation with different organic solvents, concentrated and lyophilized yielding eight types of extracts, EHC (hexanic bark extract), EAEC (ethyl acetate bark extract), EEDC (unsaturated ethanolic bark extract), EEBC (crude ethanolic bark extract), EHF (hexanic leaf extract), EAEL (ethyl acetate leaf extract), EEDL (unsaturated ethanolic leaf extract) and EEBL (crude ethanolic leaf extract) which were submitted to the fibroblast proliferation test. We also tested two isolated compounds from the EAEC extract previously obtained by our research group: quercetin-3-O-methyl ether and strychnobiflavone [1]. The confluent fibroblast cells were trypsinized and resuspended in RPMI media/10% fetal bovine serum (FBS). The cells were seeded at a density of 5×10^3 cells/well in a 96-well plate with RPMI/10% FBS and the plates were maintained at 37 °C in a humidified 5% CO₂ atmosphere. The medium was replaced after 24 h with RPMI/10% FBS (positive control), RPMI/0.5% FBS (control of initial cell number), RPMI/bark and leaf extracts (500, 250, 125, 62.5 and 31.2 µg/ml) and RPMI/isolated compounds (100, 50.0, 25.0, 12.5 and 6.25 µg/ml). The cells were incubated for 48 h and the MTT test was performed by adding 10 µL of a PBS solution of MTT (5 mg/mL) in each well, incubation for 4 h in a humidified incubator of 5% CO₂ atmosphere, discard of the media and addition of 200 µL of DMSO in each well. The absorbance of each well was recorded at $\lambda=540$ nm through ELISA. The *in vitro* fibroblast proliferation test showed stimulant capacity above the positive control (10% FBS) for EAEC extract (500, 250, 125 and 62.5 µg/mL) and for the isolated compound quercetin-3-O-methyl ether (100 and 50.0 µg/mL). The EEDC (500 µg/mL), EEBC (500, 250 µg/mL) and strychnobiflavone (100, 50.0 µg/mL) showed the same proliferation of the positive control 10% FBS. Further investigations will soon be developed in order to clarify the wound healing properties of *S. pseudoquina*.

[1] Lage, P. S.; Andrade, P. H. R. de; Lopes, A. de S.; Fumagalli, M. A.; Valadares, D. G.; Duarte, M. C.; Lage, D. P.; Costa, L. E.; Martins, V. T.; Ribeiro, T. G.; Filho, J. D. de S.; Tavares, A. A. P.; Pádua, R. M. de; Leite, J. P. V.; Coelho, E. A. F. *Strychnos pseudoquina* and its purified compounds present an effective *in vitro* antileishmanial activity. Evidence-Based Complementary and Alternative Medicine, v. 2013, p. 1-9, 2013.