FM65. Investigation of anti-inflammatory activity of *Amphilophium crucigerum* (L.) L.G. Lohmann (*Bignoniaceae*)

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**Introduction:** Since the ancient inflammatory disorders have been treated with plants or plant-derivated formulations. The anti-inflammatory activity of plants extracts and isolated compounds have already been demonstrated from several vegetal species. *Amphilophium crucigerum* is popularly known as monkey comb and is endemic in the Southern of Brazil. This species has been used in folk medicine for pain and inflammation. **Objectives:** Therefore, the purpose of this study is to evaluate the anti-inflammatory activity of the crude extract (EtOH : H₂O 7:3 v/v) and dichloromethane fraction (DCM) from seeds of *A. crucigerum* and their isolated (diosmetina and hesperetin) through cell proliferation by counting in a Neubauer chamber and assay of IL-10 by ELISA. **Methods:** The cultures of human leukocytes were prepared using 0.5 ml of venous blood by venipuncture from volunteers (Nº. 23,081 card approval) and immediately, the leukocytes were transferred to a culture medium that containing 10 ml RPMI 1640, which was supplemented with fetal bovine serum (10%) and streptomycin / penicillin (1%)². The cells were maintained in a heater at 37 ºC for 72 hours. After this period, the extracts are added in culture medium at a final concentration 500μg/mL and isolated at a concentration of 50μM. All samples were diluted in PBS buffer (pH 7.4). The negative control was phosphate buffered saline (PBS) and the positive control was ibuprofen (50 μM). All cultures were given solution of Dextran (1%). The cultures were maintained in heater at 37 ºC for 6 hours and after this period, the analysis was performed. Each group was composed of three cultures. **Results and discussion:** The proliferation of human leukocytes in cell culture showed no significant effects in either group. In the evaluation of anti-inflammatory activity of IL-10, the results showed that the ibuprofen 50 μM caused an increase of 72.23 ± 9.16% at the concentration of IL-10. Similar responses were observed for diosmetina (50μM), and hesperidin (50μM), which the increase in concentration was 41.08 ± 6.73 and 43.92 % ± 4.68%, respectively. Even the crude extract showed an increase of 15.78 ± 3.38 % and DCM fraction an increase of 25.40 ± 2.25% in the production of IL-10. These results show that only diosmetina and hesperetin have anti-inflammatory significant effect due to increase of anti-inflammatory cytokine production mechanism (IL-10). Thus, we can conclude from these biochemical tests that the popular use of the extract of the seeds of *A. crucigerum* is inefficient to inflammation when compared to isolated ones.

**Palavras-chave:** anti-inflammatory, *Amphilophium crucigerum*, *Bignoniaceae*

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