1. **EVALUATION OF PHYTOCHEMICAL PROFILE AND MUTAGENIC POTENCIAL OF ETHANOLIC EXTRACT THE LEAVES OF *Poincianella bracteosa* (Tul.) L.P. Queiroz IN MICE**

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**INTRODUCTION**: *Poincianella bracteosa* (Tul.) L.P. Queiroz. (Fabaceae), known as catingueira, is native to the Brazilian Caatinga and its leaves are used to treat diarrhea, hepatitis and anemia. However, there are still no reports on the mutagenic action of leaves and phytochemical studies are incipient. **OBJECTIVES:** To analyze the phytochemical profile and to evaluate the mutagenic potential of the ethanolic extract of leaves of *P. bracteosa* (EELPb) by means of the micronucleus test (MN) in peripheral blood of mice. **METHODS**: Leaves of *P. bracteosa* were collected in Teresina-PI and male Swiss mice (*Mus musculus*) were provided by Universidade Estadual do Piauí (UESPI). The study was approved by the Committee on Ethics in the Use of Animals (CEUA-UESPI 5117/16) with five groups (five animals per group). Leaves of *P. bracteosa* were dried (45°C) for five days, crushed, subjected to extraction in ethylic alcohol and rotaevaporated to obtain the ethanolic extract. The phytochemical profile was performed by the colorimetric test with different reagents to identify the main primary and/or secondary metabolites of the EELPb. A solution of 1% dimethylsulfoxide (DMSO and distilled water) by gavage and cyclophosphamide (100 mg/kg) intraperitoneally were administered to the mice as negative (NC) and positive (PC) controls, respectively. Three doses of EELPb (20, 40 and 80 mg/kg) were administered to the mice by gavage. After 24, 48 and 72 h, tail blood from each animal was collected for the preparation of two slides per animal. The slides were dried at room temperature, fixed in methanol (5 min), stained with Giemsa (15 min) and washed with distilled water. The presence of MN in each animal was determined by the count of 1000 normochromatic erythrocytes under an optical microscope (1000 x). Data were analyzed by Kruskal-Wallis non-parametric test and Student-Newman-Keuls *a posteriori* test (p <0.05) in the BioEstat 5.3 program. **RESULTS**: Only saponins were identified and at all times and doses of the EELPb, the presence of MN in the blood cells of the mice was not significant when compared to the NC. **CONCLUSION**: The results of the present study indicate that, possibly, the saponins of the EELPb did not result in the mutagenic action (MN) at the concentrations tested. However, further studies are needed to evaluate the mode of action of saponins in DNA.