

EVALUATION OF ANTITUMORAL ACTIVITY IN VIVO OF THE *CANAVALIA BRASILIENSIS* SEED LECTIN

Maia, F.C.¹; Torres, S.M.²; Cavada, B.S.³; Teixeira, E.H.³; Pinto, V.P.T.³; Lima Filho, J.L.⁴; Jimenez, G. C.²; Silva Junior, V.A.²; Porto, A.L.F.²

Departamentos de ¹Medicina Veterinária, ²Morfologia e Fisiologia Animal, UFRPE, Pernambuco. ³Departamento de Bioquímica, UFC, Ceará. ⁴Departamento de Bioquímica, UFPE, Pernambuco, Brazil.

Lectins are proteins or glycoproteins of the origin non-immune that join to carbohydrates and sugar composed substances on reversible and specific ways or in a way to promote glycoconjugated. This feature permits to lectins interact to a variety of mammals cells, changing its intracellular metabolism and generating several biological effects. Some lectins such as *Canavalia ensiformis*, *Griffonia simplicifolia*, *Phaseolus vulgaris*, *Glicine Max* and *Triticum vulgare* demonstrated to play important role on antitumor activities. The objective of this search was to evaluate the antitumor feature of isolated, or associated with mannose, *C.brasiliensis* (ConBr) seed lectins, clinically and histologically, intraperitoneal way. In order to achieve this goal, cells of Ehrlich's tumor were subcutaneously injected, by right dorso-lateral region of 40 swiss mice, next separated into eight groups accord to treatment to be used: control group (NaCl 150 mM); ConBr Group on three concentrations (200, 500 e 1000µg/mL); Mannose Group (0,1M/150 mM de NaCl) and ConBr/Mannose Group, using lectins on same concentrations above cited, associated to mannose (0,1M). Three days past inoculation of tumor cells were inoculated at daily basis 1mg/Kg, 2,5mg/Kg and 5mg/Kg of ConBr lectins (live weight) via intraperitoneal. On tenth day after cells were inoculated, the mice were submitted to euthanasia and their blood was collected direct from venous-senus and place to blood and bioquimical serum. The tumor, liver, kidneys, spleen, heart and lungs, were collected for histopathological evaluation and calculus of tumor inhibition. The results demonstrate tumor reduction on group that received 2,5mg/Kg of *C.brasiliensis* lectins joint to mannose, also reducing the average of mitoses per field. The histological results demonstrate similar changes between treated groups and control group, demonstrating no interference of lectins on evaluated bodies. So, the ConBr lectin demonstrated to be a important tool to study new antineoplastic drugs.

Key words: Lectins; *Canavalia brasiliensis*; antitumoral activity.