LECTIN ISOLATED FROM *HYPNEA CERVICORNIS* (HCA) REDUCES ROLLING AND ADHESION OF NEUTROPHILS IN PERITONITIS MODEL

Bitencourt, F.S.[1]; Bezerra, C.C.R.[1]; Mota, M.R.L.[1]; Teixeira, C.M.[1]; Silvestre, P.P.[1]; Nagano, C.S.[3]; Nascimento, K.S.[2]; Secco, D.D.[4]; Vale, M.R.[1]; Sampaio-Saker, S.[3]; Sampaio, A.H.[2]; Cavada, B.S.[2]; Alencar, N.M.N.[1]

Depart: [1] Fisiologia e Farmacologia, [2] Bioquímica e Biologia Molecular;
[3] Engenharia de Pesca - Universidade Federal do Ceará/UFC;
[4] Farmacologia – FMRP/USP.

INTRODUCTION. Lectins are (glyco)proteins that act as mediators on cell recognition process in an large variety of biological systems. OBJECTIVE. To investigate the anti-inflammatory activity of HCA in peritonitis model and its role on leucocyte-endothelium interation *in vivo*. METHODOLOGY. Rats (n=6) were treated by saline (control) or HCA (10^{-2}, 10^{-1}, 1 and 10mg/Kg - i.v.) and after 30 minutes peritonitis was induced by injection of carrageenan (Cg, 500µg) or fMLP (500nmol)-i.p. Four hours after the peritonitis induction, cells in peritoneal cavity were counted and expressed as mean ± S.E.M cells$x10^3$/mL. The leukocyte rolling and adhesion were examined by intravital microscopy. HCA reduced to 2996±306, 1402±424 and 649±131 at doses 10^{-1}, 1 and 10 mg/Kg, respectively (control group=7245 ± 617) in Cg model. The same doses reduced to 980±89, 743±151 and 575±93, (control group = 3438±562) in fMLP model. HCA decreased rolling and adhesion (6.0 leukocytes rolling/10µm/min, 0.38 adherent cells/100 μ^2, respectively) - control group=34.0 and 1.36, respectively, in Cg model. CONCLUSIONS. HCA presents anti-inflammatory activity which could be explained by a competitive blockage with a common selectin carbohydrate ligand. ACKNOWLEDGEMENTS:CNPq/UFC. KEYWORDS: *Hypnea cervicornis*, Inflammation, Lectin.