ANTI-INFLAMMATORY ACTIVITIES OF A FUCAN FROM THE MARINE ALGA *DICTYOTA MERTENSIS.*

Albuquerque, I. R. L.; Cordeiro, S. L.; Lima, A. K. M.; Farias, E. H. C.;Davim, A. L. S.; Souto, J. T. Leite, E. L.; Rocha, H. A. O.

Departamento de Bioquímica, UFRN

Fucan is term used to denominate a family of L-fucose-containing sulfated polysaccharides with molecular weight variable. Among these, fucans isolated from marine brown alga have been study due to their anticoagulant, antithrombotic, anti-inflammatory and antiviral activities. These biological effects of fucans depend on the degree of sulfation and molecular size of the polysaccharide chains. In the present study, we examined structural features of a fucan fractions extracted from brown alga *Dictyota menstrualis* and its effect on the leukocyte migration to the peritoneum. The chemical analyses demonstrated that this alga contain sveral fucan fractions which are composed mainly of fucose, xylose, galactose, uronic acid, and sulfate. Electrophoresis in agarose gel in three different buffers demonstrated that the fraction 2.0v have only one population of fucan. This compound was purify by exclusion molecular. It has shown composition of fucose, xilose, sulfate and uronic acid in molar ration of 1.0: 1.7: 1.1: 0.5 respectively. The effect of this heterofucan on the leukocyte migration was observed 6h after zymozan (mg/g) administration into the peritoneum. The heterofucan showed higher antimigratory activity, it decrease the migration of leukocyte in 83.77% to peritoneum. The results suggest that this fucan is a new antimigratory compound with potential pharmacological appications.

Support: CNPq, CAPES and FAPERN
Key Words: Fucan, Brown algae, Sulfated polysaccharides