CHEMICAL CHARACTERIZATION AND BIOLOGICAL ACTIVITIES OF GLUCANS EXTRACTED FROM THE FUNGI *Polyporus dermoporus*

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Glucans are polymers of β- or α-D-glucose. These polysaccharides are the main studied bioactive compounds from fungus. Glucans found in the fruties bodies of *Polyporus* have several activities, e.g. anti-retrovirus, anti-inflammatory and antimicrobicide. The present work reports the chemical composition and antioxidant and anti-inflammatory activities of polymers extracted from the fruit bodies of the fungi *Polyporus dermoporus*. Chemical analyses and NMR spectroscopy reveled that the fungal extract is mainly composed by a ß- glucan-protein complex (sugar: protein 49:0.1%). This glucan inhibited both the superoxide radical (83.3%) and hydroxyl radical (100%) formation. Ear edema induced by croton oil was inhibited by administration (i.v.) of glucan (10 and 30 mg/kg). In addition, the number of polimorfonuclear cells "in situ" of inflammation decreased significantly in treat rats. However, high dose (50 mg/kg) had an opposite effect. The evaluation of the *P. dermoporus* glucans under carrageenan-induced pleurisy showed the anti-inflammatory action of this compound. The glucan (30mg/kg) deceased the amount of nitric oxide (7,3 nmol NO_2/NO_3) in comparer to the control (23,9 nmol NO_2/NO_3).The results suggest that glucan-protein complex from *P. dermoporus* is a potential compound as anti-inflammatory and antioxidant agent.

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