EVALUATION OF TOXICOLOGICAL GALACTOMANNAN EXTRACTED FAVEIRO SEED IN RATS

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There is great interest in the exploration of seed polysaccharides by the food industry, mainly due to thickening, gelling and stabilizing effects that galactomannans can cause. This study aimed to assess the chronic toxicity of galactomannan extracted from the seed of faveiro (Dimorphandra mollis) in rats. The analysis of chronic toxicity was approved by the Ethics Committee of Unifor - Opinion No 005t20, using adult Albino wistar rats (Rattus norvegicus). These animals were maintained under standard environmental conditions and fed with food and water ad libitum. It was used three different dosages: 125mg, 250mg and 500mg per kilogram of animal and the control group (water was administered). Each treatment consisted of ten animals (five males and five females). The polysaccharide diluted in water was administered daily, during 90 days, by cavagem. The animals were weighted weekly, as well as the food weight consumed and the volume of water ingested. Every 30 days blood was collected for biochemical analysis (glucose, total cholesterol, triglycerides, VLDL, HDL, ALT, AST, BUN, creatinine, globulin, albumin, total protein and amylase) and haematological (WBC, He, Hb, Ht, MCV, MCH, MCHC, Platelets, RDW, lymphocytes, monocytes and eosinophils). Most of the hematologic and biochemical analyzes showed no difference between treatments and control. There was a reduction in levels of glucose in male animals treated with galactomannan after ninety days. The galactomannan (fiber) extracted from the seed of faveiro showed no toxicity.