HISTOCHEMICAL ANALYSIS OF THE RENAL AND GASTROINTESTINAL TISSUES FROM RATS EXPOSED TO ALCOHOL

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This work aims to study the carbohydrates distribution in renal and gastrointestinal cells of rats exposed to different periods of ethanol ingestion. Three groups of male rats were submitted to a daily ingestion of ethanol (3g/Kg of weight) for periods of 15, 30 and 45 days and a control group (35 days). Tissue sections (4µm) were submitted to lectin histochemistry and incubated with lectins (Con A, WGA, PNA, UEA-I and LTA) conjugated to peroxidase. Results indicated changes in the lectin binding pattern into renal tissue during the progression of ethanol exposure. The 45 days group presented an increased binding pattern to UEA-I, LTA and PNA to the renal ducts; and staining was not observed in the glomerulus to Con A and WGA when compared to control group. Also, in the gastrointestinal tissues, all lectins presented an increasing binding pattern related to the period of ethanol exposure. PNA was the most specific lectin, recognizing exclusively colon cells and gastric glands isthmus. The Con A presented an intense binding to the bottom region of the colon stomach glands while WGA intensely bound to the caliceform and Paneth cells in the intestinal glands. The findings suggest that alcohol exposition leads to significant changes in the carbohydrate expression in the surface of renal cortex cells and gastrointestinal tissues.