

## CARBOHYDRATE PROFILE OF GASTROINTESTINAL CELLS SURFACE OF RATS SUBMITTED TO ETHANOL STRESS AND TREATED WITH CAROTENOID USING LECTIN HISTOCHEMISTRY.

Carvalho, L.F.<sup>1</sup>; Bernardo, A.A.O.<sup>1</sup>; Nogueira, E.V.M.<sup>1</sup>; Melo, F.R.M.<sup>2</sup>; Guedes, R.A.<sup>2</sup>; Teles, N.<sup>3</sup>; Guedes, R.C.A.<sup>2</sup>; Bezerra, R.S.<sup>1,4</sup>; Beltrão, I.C.<sup>1,4</sup>.

<sup>1</sup>Laboratório de Imunopatologia Keizo Asami, LIKA; <sup>2</sup>Depto Nutrição, CCS; <sup>3</sup>Depto Patologia, CCS; <sup>4</sup>Depto Bioquímica, CCB – Universidade Federal de Pernambuco, Pernambuco, Brasil.

Saccharide moieties in cytoplasm and cell surface during normal and pathologic processes have been investigated using lectin histochemistry as an auxiliary tool. This work aimed to evaluate changes in the expression of carbohydrates in organs of the gastrointestinal tract of rats submitted to ethanol stress (EG), treated with carotenoids (TG) and compare them to the control group (CG). In TG and CG, LTA recognized L-fucose in glycoconjugates only in the membrane of Lieberkühn cripts. In EG, LTA (20 µg/mL) recognized residues of L-fucose in the membrane and cytoplasm of Lieberkühn cripts. PNA (50 µg/mL) stained apical cells of fundle gland in EG. While in TG and CG basal cells were also stained by PNA. In all groups, liver cells were not recognized by the lectins used. Con A (50 µg/ml) and WGA (40 µg/mL) failed to recognize residues of D-glucose and/or D-mannose and of N-acetylgalactosamine, respective, in sample cells. Differences in the expression of carbohydrates were observed in stomach, intestine and liver among rats exposed to ethanol stress and treated with carotenoids revealing that cells undergone changes of their saccharide residues.

Supported by: CNPq.

Keywords: gastrointestinal tract, lectin, histochemistry.