ABERRANT GSTpi ACTIVITY IN RATS WITH EXPERIMENTALLY INDUCED DIABETES

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Abstract: Diabetic nephropathy is a metabolic disorder associated with glomerular and interstitial lesions. GSTs are cytoplasmatic enzymes present in high concentrations in renal tubes. GSTpi are expressed in distal and ductal renal tubes. The aim of the study was to evaluate the role of GSTpi in early detection of kidney lesions.
In 72 Wistar male rats with experimental diabetes and in 12 healthy Wistar male rats, we determined serum creatinine and glucose, GSTpi activity.
In Wistar rats with diabetes GST pi was significantly increased compared with the rats without diabetes. A strong positive correlation, with statistical significance was determined in diabetic rats while no relation was observed between those markers in non-diabetic rats.
Aberrant GSTpi activity could indicate lesions of renal tubes in diabetic rats. GSTpi could be useful in the management of diabetic nephropathy.

Keywords: experimentally induced diabetes, diabetic nephropathy, polyphenolic extracts, glutathione-S-transferase pi