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Zhang G[1]
1. *The First Affiliated Hospital of China medical university*

THE ROLE OF TRPM8 IN DIABETIC BLADDER DYSFUNCTION

Hypothesis / aims of study

To build the diabetic rat model, to evaluate the diabetic bladder urodynamic parameter and to detect the expression levels of TRPM8 mRNA in bladder tissue. We try to find out the the role of TRPM8 in the bladder of diabetic rats, and try to guess the mechanism of TRPM8 in common bladder.

Study design, materials and methods

The male Wista rats were intraperitoneal injected of STZ to build diabetic rat model; set the normal control group, and diuretic group randomly, after the treatment, at 2,4,8,12,16,24weeks, we assess the effects of bladder function in diabetes progression , and to evaluate the expression of the mRNA of our interest in the bladder tissue. Detection of changes in body weight and blood glucose levels to assess their diabetes status. Index by urodynamic evaluation of bladder function; real time quantitative PCR method for detection the levels of TRPM8 mRNA expression and explore their correlation with bladder function.

Results

In 2,4,8,12,16,24 weeks, TRPM8 mRNA expression in the diabetic group were 7.19 ± 0.31,1.94 ± 0.34,1.35 ± 0.17,0.88 ± 0.13,0.38 ± 0.05 times compared with the common control; diuretic group mRNA expression were 1.05 ± 0.18,1.03 ± 0.13,1.13 ± 0.05,1.25 ± 0.09,1.22 ± 0.19 times as the control.

Interpretation of results

The TRPM8 expression was associated with the diabetic rat feeling.

Concluding message

The level of TRPM8mRNA expression increased significantly in 2 weeks after treatment, and then, the level reduced continually. In later diabetic rats, TRPM8mRNA levels decreased with the progression of diabete.

References

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Disclosures

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