

**BSTR-37**

**Influence of Pinealon on the Behaviour of Diabetic Rats**

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**Background & Hypothesis:**

The aim of this work was to study the influence of pinealon on maintaining the formed reflex in rats within a model of diabetes.

**Methods:**

The navigational education of rats was held in the Morris labyrinth. After forming reflex, 3 groups of rats were introduced to pinealon in dosages of 10, 100 or 200 ng/100 g. After that, the diabetes was modelled by a single-introduction of alloxan in dosages of 17 mg/100 g. On the thirtieth day after the last test in the Morris labyrinth, rats with developed diabetes were analysed on their maintenance index of formed reflex.

**Results:**

On the thirtieth day after the last test in the Morris labyrinth, a control group and the group of rats within the model of alloxan diabetes, there was no change in the time taken to reach the platform compared to the level on the third day of reflex forming. The introduction of pinealon in dosages of 100 ng/100 g within the model of alloxan diabetes resulted in the 50% decrease in time taken to reach the platform ( $P < 0.05$ ).

**Discussion & Conclusion:**

Therefore, alloxan diabetes of decompensated form is not a factor that considerably influences the maintenance of formed reflex. In addition, it has been experimentally established that pinealon has a prolonged effect on the storage function and a dose-dependent effect. This study conducted as part of the base part of the state order of the Ministry of Education and Science of the number of R & D in 1878 "Development of the fundamental aspects of molecular diagnosis of mitochondrial and pharmacology. This study was carried on the equipment of Center for collective use "High Technology" and supported by the Federal Assignment No 1878 from Russian Ministry of Science and Education.