

COMPARATIVE STUDY OF ANXIOLYTIC PROPERTIES OF GEL WITH GLUCOSAMINE HYDROCHLORIDE AND SUPPOSITORIES WITH ESTRIOLE IN SPAYED RATS

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Anxiety, as one of neurosis signs, is an attributive symptom of psychoneurological disturbances, emerging at climacteric syndrome in women.

The goal of research is study of anxiolytic activity of glucosamine HCL (5% vaginal gel) and estriol ("Ovestin" vaginal suppositories) at intravaginal introduction to spayed rat females.

Materials and methods. The experiments have been carried out on spayed rats of 180-200g weight. The exposure to the drug at vaginal introduction to animal anxiety has been studied with help of "elevated plus maze" test, based on natural acrophobia of rats and their ability to avoid lighted spots. An animal has been placed to the maze center and its moves have been being registered within 5 minutes. The experiment has been carried out in hours of darkness, because of circadian rhythm of rats. Anxiolytic properties have been evaluated on such parameters as follows: latent period of entry to the dark tube (s), duration of staying in light tubes (s), duration of staying in dark tubes (s), number of transfers.

Results and Discussions. Spayed animals of control pathology group showed sharply amplified anxiety. Latent period of the dark tube entry and duration of staying in light tubes of the maze have been 5 times and 2 times correspondingly lower than in the females of intact control group. However, time of staying in the dark tube was 2 times more, and the number of transfers between tubes of the maze got 3 times less ($p < 0.05$)

Vaginal introduction of 5% gel with glucosamine hydrochloride to spayed rat females results in reduction of their anxiety: increased latent period of the maze dark tube entry, duration of staying in light tubes of the maze, time of staying in the dark tube has been reduced correspondingly. Number of transfers between tubes of the maze was 2 times more, than of untreated animals. Rats, which were given hormone replacement therapy with estriol, had decreased anxiety, and had improvements in locomotor activity. The obtained data were consistent with indicators of intact animals.

Conclusions. This way, the studied preparations showed almost the same anxiolytic effect and normalizing impact on locomotor activity in spayed rat females.