CHRONORHYTMS OF ACTION OF CARRAGENIN AND VOLTAREN

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For many years carragenin induced paw edema has been one of the classical models for studying the antiexudative activity of nonsteroidal anti-inflammatory drugs (NSAIDs). Modern chronobiology, chronobiology and chronopharmacology put forward a task to study the temporal features of the action not only drugs, but also agents that are used in modeling this or that pathology.

We have studied features of action of carragenin and voltaren during autumn and winter. The obtained data showed that after the introduction of 1% solution carragenin female rats at 22:00 in autumn, acrophase (maximum value) of inflammatory edema was observed at the fifth hour after florigene, and the amplitude amounted to 55.6 units. In the winter carragenin was introduced at the same time, but the acrophase of its activity shifted and was observed on the fourth hour. The amplitude of inflammatory edema amounted to 51.5 units.

Also we carried out a study of the activity of voltaren dose of 8 mg/kg when it's introduced 1 hour before inflammatory edema acrophase. The drug activity in autumn in the first 2 hours after its introduction averaged 65% and in winter − 63.6%, respectively.

The obtained data confirm the fact that inflammatory processes are most pronounced in the autumn period, and dosage of NSAIDs in autumn and winter are similar, which is confirmed by the comparable activity of the drug in these seasons.

The findings suggest the need to study the temporal features of the proinflammatory agents' action as well as the development of the most rational appointment of NSAIDs.