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INFLUENCE VITAMIN DRUGS FOR PHARMACOLOGICAL SURFAGON ACTIVITY

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Abstract:

This scientific article describes the results of experiments conducted on mice to determine the strength and effectiveness of the influence of vitamin preparations on the pharmacological activity of surfagon. Vitamin preparations are of great importance for the development of the hormonal action of surfagon. Against the background of vitamin preparations, the pharmacological effect of surfagon is significantly enhanced: against the background of the action of ergocalciferol by 2.5 times, folic acid with ascorbic acid by 1.8 times, folic acid by 1.6 times and ascorbic acid by 1.2 times.

Keywords: Surfagon, injection, white mice, experimental period, sex hormones, dose, intervals, vitamin preparations, ascorbic acid.

INTRODUCTION. Many substances have hormonal properties that are very distant from hormones in origin, chemical structure properties (for example, alcohol, adrenaline, morphine, etc.). When studying the effect of vitamins on the functions of the sex hormonal system, the estrogenic effect of large doses of ascorbic acid and vitamin D was discovered [2] [1.5, 6, 7] .

Scientific studies have shown that a lack of riboflavin and nicotinic acid in chicken feed significantly weakens the growth of their oviducts. Researchers have found a similar phenomenon with pantothenic acid. Lack of folic acid also slows down the growth of the oviducts, however, having a fundamentally different effect - with its deficiency, both natural and synthetic estrogens are not able to accelerate the growth of the oviducts [2, 3, 4,8] .

Taking this into account, we decided to find out the effect of surfagon against the background of loading animals' bodies with vitamin preparations - ergocalciferol (D), ascorbic and folic acid in different combinations. The specific reaction of the animal body to surfagon was taken into account by the increase in the weight of the uterus with ovaries, as well as changes in the length of the uterine horns

MATERIALS AND METHODS . The experiments were carried out at Samarkand State University veterinarian noah medicine , animal husbandry and biotechnology and on 70 female white mice, not in contact with males, and a live weight of 14-15 g. For 6-10 days before the surfagon injection , the mice were under general observation. Feeding, care and maintenance were the same as in previous experiments. The mice were divided into four experimental groups (15 animals each) and one control group (10 animals).

These vitamin preparations were used seven times at intervals of 1 day. Ergocalciferol in an oil solution was injected subcutaneously at a dose of 0.01 ml per animal, ascorbic acid at 0.01 g/kg in an aqueous solution (1%) subcutaneously, folic acid at 0.001 g/kg and folic acid with ascorbic water dovali per os (1 and 20 mg per animal, respectively).

The first group used ergocalciferol , the second ascorbic acid, the third - folic acid, the fourth group - folic acid with ascorbic acid, the mice of the fifth group were control mice .

RESEARCH RESULTS . Two days after they stopped using vitamin preparations, on the 15th day of the experiment, ten mice of each experimental and control group were injected with surfagon at a dose of 0.5 μg per head and on the same day five mice were killed in each group (in including the control one) and determined the weight of the uterus by the ovaries (without contents), since we first needed to find out the effect of vitamin preparations on the weight of the genital organs in their pure form - before the introduction of surfagon .

It was found that after the use of vitamin preparations, the greatest weight of the uterus was in mice of the first group, where ergocalciferol was used : the weight of the uterus with ovaries reached an average of 27.2 mg. In the remaining groups, this figure ranged from 17 to 20.5 mg (i.e., weight did not change significantly compared to the control). In the control, the weight of the uterus with ovaries was 18.1 mg. The remaining mice were killed on day 6 after drug injection. The difference in the average weight of animals at the end of the experiment between the groups was within 1-2.5%.

In experimental mice that received a vitamin load and were killed by decapitation, a sharp increase in the size of the genital organs was observed in different groups. A particularly strong increase in the size of these organs occurred in

the first group compared to the conditional control group five. The uterine horns, as a rule, were filled with opalescent serous fluid.

To obtain the most accurate results and compare data in different groups, the weight of the uterus (without contents) with the ovaries was determined. It was found that the greatest increase in all sizes of the genital organs occurred in the first group, where surfagon was used against the background of ergocalciferol (107 ± 7.60 mg), then in the fourth, where the drug was injected against the background of folic and ascorbic acid (76.5 ± 7.30 mg), then in the third, where surfagon was administered against the background of folic acid (69.0 ± 5.40 mg), and then in the second group the drug was used against the background of ascorbic acid (51.5 ± 4.50 mg). The lowest uterine weight was observed in the conditional control group five, where surfagon was injected without background vitamins (42.5 ± 4.80 mg).

The absolute weight of the uterus with ovaries) increased compared to the control: in the first group by 64.5 mg (151, 70%) ($P<0.001$) $t = 7.21$), in the fourth by 34 mg (80.00%) ($P<0.001$; $t - 3.89$), in the third group by 26.5 mg (62.35%) ($P < 0.01$; t. 3.67, which is closer - $P<0.001$) and in the second group by 9 mg (21, 18%) ($P>0.05$; $t = 1.37$).

In terms of changes in the length of the uterine horns, the highest indicator was noted in the third group, where surfagon was used against the background of folic acid, 3.7 cm, then in the fourth group, where the drug was administered against the background of folic acid with ascorbic acid - 3.5 cm, then in the group where surfagon was injected on ergocalciferol again - 3.3 cm, in the second group on the background of ascorbic acid - 3.0 cm. In the control fifth group, the lowest indicator was noted - 2.9 cm.

DISCUSSING THE RESULTS OF THE EXPERIMENTS , we can conclude that against the background of vitamin preparations - ergocalciferol , folic acid, folic acid with ascorbic acid and ascorbic acid, surfagon acts much stronger than without any background. Thus, surfagon and vitamins in the final action are synergists; when used in combination, the specific effect of surfagon is enhanced.

The data obtained indicate that with adequate feeding of animals, when the feed is rich in vitamins: ergocalciferol (D2), folic and ascorbic (vitamin C) acids, surfagon can be successfully prescribed in small and moderate doses . If the feed lacks these vitamins, for To obtain the same effect, the dose of surfagon should be increased .

CONCULSION

1.Vitamin preparations are of great importance for the development of the hormonal action of surfagon , as they increase the sensitivity of the female genital organs to sex hormones.

2. Against the background of vitamin preparations, the pharmacological effect of surfagon is significantly enhanced: against the background of the action of ergocalciferol by 2.5 times, folic acid with ascorbic acid by 1.8 times, folic acid by 1.6 times and ascorbic acid by 1.2 times.

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