Reproductive qualities of sows using exogenous progesteron

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Introduction

The aim of the study was to investigate the endocrine status and reproductive qualities of sows, when using prolonged preparation which contain 15% progesterone.

Materials and Methods

The study of the endocrine status of sows was performed at 9-th, 11-th, 16-th and 21-st day after insemination. Animals of the experimental group (n=20) received progesterone-containing drug in a dose of 2.0 ml on the 10-th day after insemination, the pigs of the control group (n=20) were not injected with this drug.

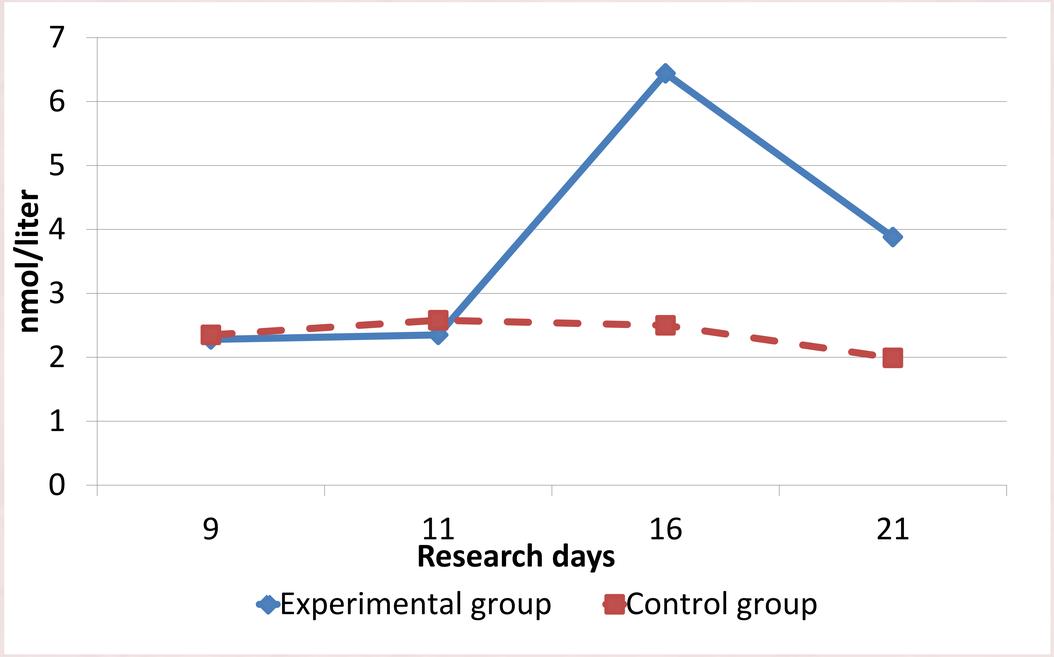

Fig. Dynamics of progesterone content in the blood of sows, nmol/liter

Results

It is established that the progesterone content in blood of experimental animals rises insignificantly from 9-th to 11-th days after insemination. In the experimental group, the concentration of the steroid increased from 2.28±0.23 to 2.35±0.15 nmol/liter, and in the control group from 2.35±0.07 to 2.58±0.10 nmol/liter. At the 16-th day after insemination in the experimental group, the content of progesterone is accompanied by a sharp rise in 2.74 times ($P<0.001$) - up to 6.44±0.58 nmol/liter. On 21-st day after insemination, the concentration of progesterone in both groups decreased. However, the level of this steroid hormone in group getting this hormonal preparation remained higher by 1.95 times ($P<0.05$) than in the control group. When studying the reproductive qualities of animals, it was found that in the experimental group, the fertilization rate was 95%, which is higher than in the control group by 10%. Also, in the experimental group the multiple fetus increased by 11.55%, the number of live newborn piglets by 23.36%, decreased the number of stillborn piglets by 2.14 times ($P<0.05$), compared with similar indicators of the control group.

Conclusion

The use of a prolonged preparation containing 15% progesterone causes higher endocrine status of sows, contributes to prevention of embryonic mortality which leads to increase the fertilization and multiple fetus of animals.