274. The Research of the Liver Cellular Proliferation and the Cellular Hypertrophic Reaction of the Pregnancy, Delivery and Feeding —The Use of the ICR Mice—

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We investigated change of the body weight, the liver weight, the liver cellular proliferation and the liver cellular hypertrophy that used 320 ICR mice.

We collected the material, which of each pregnancy, nonpregnancy (it is control groups), feeding and unfeeding (it is control groups) mice.

1) The body weight during pregnancy gradually increases, reaching its twice time at the just before delivery than control groups.

The body weight revealed a 20 gm decrease during delivery, but its regain till 14 days after delivery, subsequently its decrease.

2) The liver weight during pregnancy gradually increases, attains its twice time at the just before delivery than control groups, and its increase until 14 days after delivery.

3) The liver cellular proliferation represents from the early pregnancy. It is encountered most frequently during the middle stage of pregnancy, thereafter begins to diminish but its more until 14 days after delivery than control groups and unfeeding groups.

4) The liver cellular hypertrophy are encountered most frequently between the late pregnancy and 17 days after delivery.

The unfeeding control groups are found relief of it. It is obvious that feeding groups influence liver cellular hypertrophy.

In conclusion, we acknowledged that there is obviously the liver cellular proliferation and the liver cellular hypertrophy owing to pregnancy, delivery and feeding.

275. The Effects of Various Drugs on the Rabbit Uterine Contraction

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The uterine contraction effects of oxytocin (OXY.), $PGF_{2\alpha}$ and PGE_1-analogue (ONO-802) were compared in this study by using rabbits as an animal model. Female rabbits weighing 3-4 kg were assigned to the five groups of non- or pseudo-pregnant rabbits and rabbits in their 7-9, 14-16 and 19-28 days in pregnancy. Under local anesthesia they underwent and abdominal operation in order to place a micro isometric transducer on the uterine horn. The drugs were administered through the auricular vein 2 hours after the operation. Uterine constraction effects were assessed by both the patterns and 5 minutes' area of contraction curves.

The results are as follows:

1) The effects of OXY. on the uterine contraction were found to be not so pronounced in pregnant rabbits, however, just before the deliveries the effects were remarkably increased.

2) $PGF_{2\alpha}$ revealed somewhat weak uterine contraction effects throughout the pregnancy. In the late pregnancy, $PGF_{2\alpha}$ induced the regular patterns of uterine contraction.

3) Compared with the others, ONO-802 revealed stronger effects on the uterine contraction in both pregnant and pseudo-pregnant rabbits, especially in 7-9 day-of-pregnant rabbits. The ONO-802 induced uterine contraction characterized by its wedge-shaped curves continued considerably longer than those induced by the others.

4) Among the three groups of pregnant rabbits, 14-16 day-of-pregnant rabbits were least influenced by the three drugs as regards the uterine contraction.

276. The Role of Fetal Prolactin on the Initiation of Parturition in the Ewe

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