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Studies on Superovulation in Rabbits

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Abstract

The present study was carried out to establish effective method for the superovulatory treatment of female rabbits with FSH and HCG which made in China, German Angora, Chinchilla, Californian and New Zealand white rabbits were used in this study. Superovulation was induced by injection of different dosage of FSH twice daily for 3 days and 100 IU/rabbit of HCG was intravenously injected on the 4th day. The rabbits were artificially inseminated with 0.8-1.2ml of undiluted semen containing $1.0-2.5 \times 10^8$ motile sperm at the time HCG was administered. An experiment was made of the ovulating effects of FSH+HCG and PMSG+HCG. The results obtained are as follows:

(1) Comparison PMSG with FSH indicates that the former are less efficient in superovulating.

(2) The effect of age on the recovery rate were highly significant ($P < 0.01$). So the age of donors should be the principal criterion when selecting the rabbits for treatments leading to superovulation.

(3) The optimal dosage of FSH for superovulation of the adult rabbits is 30 to 60 IU ($5-10 \times 2 \times 3$), more than 60 embryos were obtained in one animal.

(4) Hormonal treatment of Californian rabbits seemed to be less effective than that of Chinchilla and New Zealand white rabbits.

(5) The embryos were recovered from oviducts at 24-30 hrs after insemination for 1-, 2- and 4-cell embryos, at 48-54 hrs from oviducts and uteri for 8- and 16-cell embryos, at 68-80 hrs from uteri for morulae and early blastocysts.



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