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Author(s)	FUKUI, Yutaka
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6) Increases of thrombocytes and neutrophils occurred from the 11th and the 15th days respectively.

7) In scanning electron microscopy, poikilocytes with projections, constrictions and indentations were seen to increase markedly in number with the progress of anemia.

8) In electron microscopy, an increase of poikilocytes with various abnormal figures was observed with the progress of anemia.

AN EXPERIMENT FOR THE ESTIMATION OF THE LITTER SIZE IN UTERO IN PIGS BY MEANS OF AN ULTRASONIC DOPPLER METHOD

Yutaka FUKUI

Department of Veterinary Obstetrics
Faculty of Veterinary Medicine
Hokkaido University, Sapporo, Japan

A method for the estimation of pig litter size in utero using an ultrasonic doppler apparatus ("Heart-tone" USD-I, Aloka Co. Ltd., Tokyo) was studied with 16 pregnant sows of 3 different breeds. In 15 of the 16 sows, the experiment was performed once during 80~114 days of pregnancy, while in the remaining one 5 experiments were undertaken during 58~107 days of pregnancy. Each experiment was done non-surgically at a laying position with neither fixation nor anesthesia.

The results obtained can be summarized as follows:

1) In 5 cases out of a total of 20 experiments the estimated litter size was in accord with the actual one at parturition. In the remaining 15 cases, however, errors between the estimated and the actual ranged from −5 to +3 piglets.

2) Cases in which the error was less than ±2 piglets were 14 out of 20 (70%), and those in which the error was less than ±3 piglets were 17 (85%).

3) Litter size estimation tended to become more accurate after 90 days of pregnancy, while it tended to be less accurate where the number of fetuses was more than 10 as compared with cases where it was less than 9.

4) No harmful effect from the ultrasonic treatment was observed in either fetuses or dams.

5) The fetal heart rate showed a tendency to decrease with the progress of pregnancy.