

Laparoscopic method for embryo transfer in pigs – methods and results

Summary

The aim of the studies was to develop intrauterine laparoscopic method for embryo transfer in pigs. Five hundred forty seven blastocysts were transferred into uteri of 15 synchronized recipients. The uterus was stabilized by clamping of its horn as soon as possible near Fallopian tube and the embryos were deposited as near as possible at the beginning of the horn. The blastocysts were introduced by original catheter by puncture of uterine wall horn and insertion of elastic blunt catheter inside uterus to the depth of 3-5 cm. The embryos, as being found in minimal quantity of medium, were placed on the front part of the catheter (1-2 cm) and injected into uterus cavity. A single injection contained 36.7 blastocysts. After embryo' insertion, the catheter, grasps and trochars were removed in a reverse sequence than during their insertion. After trochars' removal, the simple single sutures were performed. Peritoneum and muscles were not sutured as the wound size was very small. The effectiveness of the method was evaluated on the ground of the percentage of pregnant recipients, being examined by ultrasonographic method between the 28th – 31st day after embryo transfer and on the basis of the born piglets and the number of the reared piglets. Pregnancy was diagnosed in 6 recipients (40%). In 6 litters, 57 piglets were born (9.5 /1 sow); from this quantity, 41 piglets were reared (71.9%; 6.8/1 sow). The application of the discussed method confirmed the clinical assumptions and allowed eliminating shortcomings of the surgical method. The suggested laparoscopic method is an alternative method to surgical methods for embryo transfer.

KEY WORDS: pigs, embryo transfer, laparoscopy