

Comparison of Embryo Holding and HTCМ-199 on bovine oocyte maturation outside the incubator and its effect on blastocyte production

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Abstracts

Many cellular changes have been reported to play a role in the aging process of oocyte; however, few studies have been performed on the appropriate time and temperature for the storage. The main problem is the distance and time available for the transfer of oocytes to the laboratory, and protection of immature oocytes without reducing their ability to fertilize in vitro is very critical. The aim of this study was to compare the Embryo Holding (EH-Syngro) and HTCМ-199 medium to store immature oocytes at room temperature without incubation. A total of 5268 oocytes were tested. The oocytes were stored at three temperature degrees including 4, 22 and 38 ° C for 6, 12, 18, and 24 hours. After spending the storage time, they were entered to the standard maturation environment and finally IVF was performed. There was no statistically significant difference between the experimental and control groups in terms of blastocyst production at storage of 6h. At 12 hours, oocyte maturation and blastocyst production in all groups were significantly lower than that of the standard group. EHT and HTCМ-199 medium in our experiment showed that they can be useful for storing immature oocyte for up to 6 hours at room temperature and have no adverse effect on maturation of oocyte and blastocyst production, and most importantly do not need an incubator to transport the oocytes to the laboratory.

Key words: Oocyte, Blastocyst, Incubator, Embryo Holding, HTCМ-199

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