عنوان مقاله:

Enhancement of NMRI Mouse Embryo Development In vitro

محل انتشار:

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خلاصه مقاله:

Most of the systematic studies used in the development of human embryo culture media have been done first on mouse embryos. The general use of NMRI outbred mice is a model for toxicology, teratology and pharmacology. NMRI mouse embryo exhibit the two-cell block in vitro. The objective of this study was to evaluate and compare the effects of four kinds of culture media on the development of zygotes (NMRI) after embryo vitrification. One-cell mouse embryos were obtained from NMRI mice after superovulation and mating with adult male NMRI mice. And then randomly divided into ۴ groups for culture in four different cultures media including: M۱۶ (A), DMEM/Ham, F-۱۲ (B), DMEM/Ham's F-۱۲ co-culture with Vero cells(C) and DMEM/Ham's F-۱۲ co-culture with MEF cells (D). Afterward all of the embryos were vitrified in EFS۴۰ solution and collected. Results of our study revealed, more blastocysts significantly were developed with co-culture with MEF cells in DMEM/Ham's F-۱۲ medium. More research needed to understand the effect of other components of culture medium, and co-culture on NMRI embryo development.

کلمات کلیدی:

Mice, ۲, cell block, Mouse Embryonic Fibroblast Cell, Blastocyst, Vero Cells