# COMPARISON OF TWO OOCYTE MATURATION MEDIA FOR IN VITRO PRODUCTION OF BLASTOCYSTS IN AN INDIGENOUS VIETNAMESE MINIATURE PIG

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Our aim was to establish an efficient *in vitro* embryo production system for Ban miniature pigs, native and endemic to the north part of Vietnam. We compared two maturation media, a non-defined (ND) one and a defined one (D) in terms of blastocyst development and quality after *in vitro* maturation (IVM), fertilization (IVF) and subsequent embryo culture. Immature cumulus-oocyte complexes (COCs) were obtained from all antral follicles (irrespective of size) of the ovaries of 7-8-month old Ban gilts (20-25 kg each) slaughtered on arbitrary days of estrus. The COCs were subjected to IVM either in TCM-199 medium supplemented with 10% (v/v) porcine follicular fluid (ND group) or in POM medium supplemented with 10 ng/ml epidermal growth factor (D group). In both groups the media was supplemented with 10 IU/ml eCG and 10 IU/ml hCG and oocyte maturation was synchronized by 1 mM dibutyryl cAMP during the first 22 h of IVM. IVF was conducted by frozen-thawed epidiymal Ban sperm. Zygotes were cultured in PZM-3 medium for 7 days. Polar body extrusion, cleavage, blastocyst rates and total cell numbers in blastocysts were compared in 5 replications. Results were analyzed by t-test. There was no significant difference ($P>0.05$) between the ND and D groups in terms of oocyte maturation (67.9% and 74.1%, respectively), cleavage (56.0% and 52.3%, respectively), and blastocyst development rates (17.3% and 22.4%, respectively). The mean total cell numbers were significantly ($P<0.05$) higher in blastocysts of the D group than in those of the ND group (77.5 vs 51.9, respectively). In conclusion, the efficacy of the two media was similar in terms of blastocyst production; however, better quality embryos were obtained by the defined one. This study was supported by SATREPS from Japan Science and Technology Agency (JST) and Japan International Cooperation Agency (JICA).