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## ***In Vitro* Maturation of Tiger Oocytes: Case Report**

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The purpose of this study was carried out to determine the possibility of *in vitro* maturation of tiger oocytes. Immature oocytes were recovered from a pairs of ovaries. A total of 78 oocytes were collected, of which forty threes were identified as compact cumulus cells and uniform cytoplasm. 43 COCs were *in vitro* matured at 39°C, 5% CO<sub>2</sub> in air atmosphere for 48 h in a IVM medium (TCM-199 supplement with 10% FBS, 0.6 mM cysteine, 0.2 mM pyruvic acid and 10 IU/ml HMG). In experiment I: the morphologic evaluation was conducted of the diameter of oocytes with or without ZP, the thickness of ZP and the diameter of cytoplasm by microeyepiece at the same magnification (X200). In experiment II: the evaluation of mitotic development was conducted of the nuclear development stage of tiger oocytes. The morphologic evaluation and mitotic development were analyzed by general Linear models procedure in SAS 8.0. The diameter of tiger oocytes (176.5±6.1 μm) with ZP was significantly ( $P<0.05$ ) greater than that of bovine oocytes (150.7±4.9 μm). The ZP thickness of tiger oocytes (20.4±2.9 μm) was significantly ( $P<0.05$ ) greater than that of bovine oocytes (12.0±2.6 μm;  $P<0.05$ ). However, there was not significantly different in the diameter of cytoplasm (without ZP) between tiger (122.1±9.7 μm) and bovine oocytes (118.7±7.5 μm). The rates of mitotic development of tiger oocytes were achieved GV (12.5 %) and MII (50.0%), respectively.

These results indicated that tiger oocytes could be developed to MII in *in vitro* culture system and suggested of possibility of them.

Key words: *Tiger oocyte, In vitro maturation, Oocyte morphology*