

IN VITRO MATURATION RATE OF ETTAWA CROSSBREED GOAT OOCYTES SUPPLEMENTED WITH FOLLICLE STIMULATING HORMONE

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Abstract Body

Research was conducted to determine in vitro maturation rate of Ettawa Crossbreed Goat supplemented with follicle stimulating hormone (FSH) in maturation medium. Cumulus-oocyte complexes of Bligon Goat were in vitro matured for 24 h in TCM 199 supplemented with 50 IU/mL FSH and without FSH. Oocytes were then stained with 1% aceto orcein to examine maturation based on changes in the configuration of chromosomes and nuclear membrane. Oocytes were considered mature when reached metaphase II (MII), characterized by extrusion of first polar body (PB1). The data were analyzed using one way ANOVA. The results indicated that Follicle stimulating hormone supplementation significantly increased matured oocyte rate (69.21 ± 7.261 vs 43.25 ± 6.23 %) as indicated by extrusion of PB1. The rate of degenerated oocytes was lower in the medium with FSH supplementation (3.21 ± 0.25 versus 10.15 ± 3.1 %). Conclusion, Follicle stimulating hormone supplementation is effective to improve oocytes maturation in vitro and yielding mature oocytes for future in vitro fertilization