THE EFFECT OF THE ADDITION OF UREA IN *IN VITRO* MATURATION MEDIUM ON MATURATION RATE OF BOVINE OOCYTE

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ABSTRACT

This study was aimed to determine the percentage of *in vitro* oocyte maturation in TCM – 199 media with urea. Cumulus oocyte complexes (COCs) that had been selected from the dissection media were added into the maturation media that contained TCM -199, Hepes, $NaHCO_3$ and Kanamycine . Maturation media were added 0.15 IU/ml PMSG, 0.15 IU/ml hCG and FBS. Each petridish contained three drops of maturation media (300 µl/drops) which were coated with mineral oil and then incubated in a 5% CO2 incubator, with maximum humidity and temperature of 39˚C. Control (P0) was oocyte maturation without the addition of urea, while treatment 1 (P1) and treatment 2 (P2) were oocyte maturation with the addition of urea, 20 mg/dl and 40 mg/dl respectively. Aceto orcein staining showed that oocyte reached metaphase II phase were 51.25, 52.43 and 46.88 % respectively. ANOVA showed that there was no significant difference ($\bar{p}$ 0.05) among treatment groups.

Key words: *In vitro maturation*, *Urea, Bovine Oocyte*