

# **SUPPLEMENTATION OF INSULIN TRANSFERRIN SELENIUM ON IN VITRO MATURATION CUMULUS OOCYTE COMPLEX AGAINST TO CYTOCHROME C and CASPASE 3 EXPRESSION**

RINA PUJIASTUTI

## **ABSTRACT**

This study aimed to detect the role of Insulin Transferrin Selenium against to the increasing oocytes maturation in molecular process with the reduce of cythocrome c and caspase 3 expression in oocytes maturation with immunocytochemical by avidin biotin complex method. Oocytes were matured treatment by maturation media (TCM-199 that were added FSH 0,01 µg/ml, LH 0,01 µg/ml, BSA 3%) were added by ITS with diffrentiated doses. P0: ITS 0 µg/ml, P1: ITS 10 µg/ml, P2: ITS 15 µg/ml, P3: 20 µg/ml. Oocytes maturation were carried on 38.5 °C in incubator CO<sub>2</sub> 5% for 24 hours. The result supplementation ITS P0 (0 µg/ml) was significantly different (p<0,05) with P1(10 µg/ml), P2 (15 µg/ml) and P3(20 µg/ml) in reduced the expression of cythocorme c and caspase 3 in Cumulus Oocyte Complex (COC). Both expression of cythocrome c was significantly differen (p<0,05), at P2 (15 µg/ml) and P3(20 µg/ml). The conclusion of ITS supplementation experimental on maturation medium is be able to decreased expression of cytochrome c and caspase 3 in oocytes maturation.

**Key Words:** oocytes, in vitro maturation, Insulin Transferrin Selenium, cythocrome c, caspase 3.