SUPPLEMENTATION OF INSULIN TRANSFERRIN SELENIUM ON IN VITRO MATURATION CUMULUS OOCYTE COMPLEX (COC) AGAINST TO MITOGEN ACTIVATED PROTEIN KINASE (MAPK) EXPRESSION AND CUMULUS EKSPANSION

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ABSTRACT

This study aimed to detect the role of Insulin Transferrin Selenium against to the increasing oocytes maturation in molecular process with the increase of expanded cumulus and MAPK expression as the promoting re-meiosis in oocytes maturation with immunocytochemical by avidin biotin complex method. Oocytes were maturated 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 ^{0}C in incubator CO_2 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 increased the expended cumulus mass and MAPK expression in Cumulus Oocyte Complex (COC). Expanded cumulus mass was not significantly differen ($p>0,05$), while MAPK expression was significantly differen ($p<0,05$) at P2 (15 µg/ml) and P3(20 µg/ml). The conclusion supplementation ITS on maturation medium be able to increase expanded cumulus mass as well as the MAPK expression in oocytes maturation.

Key Words: oocytes, in vitro maturation, Insulin Transferrin Selenium, expanded cumulus mass, Mitogen Activated Protein Kinase.