

EFEK ASAM METOKSIASETAT (MAA) TERHADAP KUALITAS EMBRIO MENCIT (*Mus musculus*) SWISS WEBSTER TAHAP PRAIMPLANTASI

EFFECTS OF METHOXYACETIC ACID ON THE QUALITY OF PREIMPLANTATION MICE (*Mus musculus*) EMBRYOS

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ABSTRACT: The effects of methoxyacetic acid on embryo development had been studied. Female mice were mated in the afternoon and the presence of vaginal plug next morning was determined as day 0 of pregnancy. On the day 1 of pregnancy, female mice of treated groups were administered with a dose of MAA 2 mmol/kg b.w. by *gavage*, whereas the control groups were administered with sterilized distilled water with the same volume. On the day 3 of pregnancy, pregnant mice from treated groups and control groups were sacrificed by cervical dislocation and dissected. Observations were done on the number of 8 cell embryos, uncompact morule, compacted morulae, early blastocyst, late blastocyst and abnormal embryos. Observation of number of blastomers was done in day 3.5 of pregnancy using Tarkowskys' method. The results showed that single dose of MAA 2 mmol/kg b.w. decreased the percentage of embryos that reached late blastocyst significantly ($P < 0.01$). This was mainly caused by the increasing of retarded embryos. Besides, the number of abnormal embryos was increased significantly ($P < 0.05$). The decreasing quality of embryos was also shown the decreasing of blastomers significantly ($P < 0.01$).

KEYWORD: METHOXYACETIC ACID, PREIMPLANTATION EMBRYO, BLASTOMER