

## Effect of IGF-I on Ovine Oocytes Maturation and Subsequent Embryo Development following in Vitro Fertilization (IVF)

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**Abstract :** The objective of this study was to determine the effects of IGF-I on ovine oocytes maturation and subsequent development of embryos derived from in vitro fertilization (IVF). In vitro maturation (IVM) of oocytes and in vitro culture (IVC) of embryos was conducted with or without 100 ng/mL IGF-1. In the IGF-I treated group, mean percentage of oocyte maturation was significantly higher than the control group ( $57.67 \pm 3.04$  versus  $49.81 \pm 3.04\%$ , respectively,  $P < 0.05$ ). However, in comparison with control group, there was no significant effect of IGF-1 on rates of cleavage, morula, and blastocyst formation (85% versus 84%; 63% versus 65%, and 40% to 39%, respectively). These data demonstrate that IGF-I has a positive effect on ovine oocyte maturation rate, but it has not the significant outcome on embryo development.

**Keywords :** ovine, IGF-I, IVM, ICSI

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