Effect of Vascular Endothelial Growth Factor 165_a on Porcine Primordial Follicle Viability *in vitro*: A preliminary Study

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Abstract
Folliculogenesis is a complex process of ovarian follicle growth and development, which is yet to be completely understood. Vascular endothelial growth factor (VEGF) is known for its ability to promote angiogenesis. Among different candidates, VEGF 165_a is recognized as one of the major factor that determines the degree of vascularisation of the target tissue. This brings up the importance of studying the role of VEGF 165_a in ovarian follicle activation with special emphasis to ovarian cortex. The objective of current study was to determine the effect of vascular endothelial growth factor 165a on porcine primordial follicle viability *in vitro*. This preliminary data was obtained from short-term (72 hours) *in vitro* culture of porcine ovarian cortical stripes under 5% CO_2 and 95% O_2 under the humidified atmospheric conditions. In this study, all the observations suggested that the lower concentrations of VEGF165a has increased the follicle viability among all treated groups (0.1ng/ml 88.02%, 1ng/ml 67.68% and 10ng/ml 25.21%) while higher concentrations implicit higher follicle degeneration (74.79%). In conclusion, the lowest $VEGF165_a$ concentration has increased the follicle viability while the highest concentrations implicit increased follicle degeneration in this study.

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