EFFECT OF FOLLICULAR FLUID PROGESTERONE LEVEL TO SUCCESSFUL FERTILIZATION

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Abstract Body

Effect of Follicular Fluid Progesterone Level to Successful Fertilization

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The assessment of oocyte quality in human in vitro fertilization (IVF) is one of the major objectives of embryologists. Follicular fluid is a very important microenvironment for oocyte and embryo development. The potential effect of follicular progesterone level to successful fertilization is a subject of debate. Our aim was to assess previous research studies related to this topic to derive a conclusion.

A systematic review and a meta-analysis were performed. In total 1009 follicular samples were included in the analysis. The levels of progesterone in follicular fluid were significantly higher in cases of normal fertilization than in cases of failed fertilization ($p<0.001$). There was no difference found between the results by the conventional in vitro fertilization and intra-cytoplasmic sperm injection protocols.

This data shows that fertilized oocytes are derived from follicles with higher levels of progesterone. It could be concluded that a follicular environment rich in progesterone is key to good oocyte development as well as essential for success in assisted reproduction.

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