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В работе не участвовали животные или люди в качестве объектов исследования.

КОНФЛИКТ ИНТЕРЕСОВ

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MATURATION OF OOCYTES *IN VITRO*: BIOLOGICAL BASIS AND PROSPECTS FOR CLINICAL USE

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In vitro oocyte maturation (IVM) involves the aspiration of prophase I oocytes in oocyte-cumulus complexes from small antral follicles and their subsequent maturation to metaphase II (MII). IVM is a promising method for obtaining MII oocytes in cases where hormonal stimulation of the ovaries is undesirable or impossible. At the same time, in terms of maturation rates and developmental capacity, oocytes obtained as a result of the IVM procedure are inferior to oocytes obtained in stimulated cycles; therefore, improving IVM protocols is a hot topic. The review discusses the possibilities of the IVM procedure in the context of key stages of oocyte maturation and their achievement of nuclear and cytoplasmic maturity. The advantages and disadvantages of various IVM techniques and the main directions for their further improvement are highlighted.

Keywords: *in vitro* maturation, folliculogenesis, antral follicle, oocyte-cumulus complex, cytoplasmic maturation