

عنوان مقاله:

Application of Embryonic Stem Cell in Infertility

محل انتشار:

سومین کنگره بین المللی روش های کم تهاجمی زنان و مامایی ایران (سال: 1397)

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نویسندگان:

Zahra Bajalan - Msc of Midwifery Faculty Member of Nursing and Midwifery school, Qazvin University of Medical Science ,Iran

Farnoosh Moafi - Msc of Midwifery Faculty Member of Nursing and Midwifery school, Qazvin University of Medical Science ,Iran

Hamideh Haj Nasiri - Msc of Midwifery Faculty Member of Nursing and Midwifery school, Qazvin University of Medical Science ,Iran

Somayeh Falah - Msc of Midwifery Faculty Member of Nursing and Midwifery school, Qazvin University of Medical Science ,Iran

خلاصه مقاله:

Background& Aims: Nearly 72.4 million people or 15% of couples experience fertility problems. Stem cells are undifferentiated cells that are present in the embryonic, fetal, and adult stages of life and give rise to differentiated cells that make up the building blocks of tissue and organs. The stem cells are promising therapeutic tools to treat currently of infertility. In this review, we will summarize current knowledge regarding the use of stem cells in reproductive medicine.**Materials &Methods:** This study was performed of a systematic literature using the keywords embryonic stem cell , male infertility and undifferentiated cells and electronic databases ISI web of knowledge, PubMed, Cochrane, Embase, Scopus, ProQuest and Sience Direct from 2010 to present.**Results:** Different types of stem cells (mesenchymal stem cells, embryonic, endometrial, and ovarian stem cells) can be differentiated into both spermatozoa and oocytes in vitro, proving their potential clinical use in management and cure of infertility issues. Stem cells could be stimulated in vitro to develop various numbers of specialized cells including male and female gametes suggesting their potential use in reproductive medicine. During past few years a considerable progress in the derivation of male germ cells from pluripotent stem cells has been made. In addition, stem cell-based strategies for ovarian regeneration and oocyte production have been proposed as future clinical therapies for treating infertility in women.**Conclusion:** The formation of sperm/oocyte-like cells from ESCs could be a potential therapeutic treatment for patients suffering from infertility. The development of techniques to prolong the window of fertility has the ability to meet the needs of future populations and their delay in childbearing. However, the potency and viability of these .sperm/ oocyte-like cells is still very low

کلمات کلیدی:

Embryonic Stem Cell, Male Infertility, Undifferentiated Cells

لینک ثابت مقاله در پایگاه سیویلیکا:

