

عنوان مقاله:

Cell therapy of poor ovarian responders using MenSCs Improvement of pregnancy rate and live birth rate in poor ovarian responders by intraovarian administration of autologous menstrual blood stem cells

محل انتشار:

سومین کنفرانس بین المللی یافته های نو در مامایی، زنان، زایمان و نازایی (سال: 1399)

تعداد صفحات اصل مقاله: 14

نویسندگان:

Simin Zafardoust - *Reproductive Biotechnology Research Center, Avicenna Research Institute, ACECR, Tehran, Iran*

Maryam Darzi - *Reproductive Biotechnology Research Center, Avicenna Research Institute, ACECR, Tehran, Iran*

Mina Fathi-Kazerooni - *Reproductive Biotechnology Research Center, Avicenna Research Institute, ACECR, Tehran, Iran*

Hilda Rastegari - *Reproductive Biotechnology Research Center, Avicenna Research Institute, ACECR, Tehran, Iran*

Afsaneh Mohammadzadeh - *Reproductive Biotechnology Research Center, Avicenna Research Institute, ACECR, Tehran, Iran*

Somaieh Kazemnejad - *Reproductive Biotechnology Research Center, Avicenna Research Institute, ACECR, Tehran, Iran*
Ph.D. Associate Professor of Clinical Biochemistry Director of Tissue Engineering Department, Reproductive Biotechnology Research Center, Avicenna Research Institute

خلاصه مقاله:

Background Despite numerous studies been accomplished to examine the effects of different stimulation protocols in infertility treatment of poor ovarian responders (PORs), there is no certain recommendation for clinical handling of these women which often leads to oocyte/embryo donation. **Objective:** In this study, effect of stem cell therapy using autologous menstrual blood mesenchymal stem cells (MenSCs) in fertility potential of PORs has been examined. **Study design:** 36 POR women (based on Bologna criteria) undergoing conventional IVF-embryo transfer were included in this study. The eligible women were divided into main (stem cell therapy) and control (routine ICSI plan) groups. The cultured MenSCs were injected into left ovary of stem cell group while control group underwent routine ICSI plan. Changes in AMH, antral follicles count (AFC), oocytes and embryos number, clinical pregnancy rate and live birth rate were followed in both groups up to one year after treatment. **Results:** Cell therapy using MenSCs was completely safe. 26.7% of participants in stem cell group got naturally pregnant during 3 months after cell administration, in contrast to no natural conception in control group ($P=0.04$). The mean AMH level did not significantly differ with that of previous cycle or control group. Although mean AFC and oocytes number in stem cell group did not indicate considerable difference with those of control group, raise of these parameters in comparison with previous cycle was significant (both $P=0.01$). Moreover, oocyte fertilization rate in stem cell group was remarkably higher than pre-treatment (92% vs. 76%, $P=0.01$). Totally, 46.7% of women in main group had clinical pregnancy which was higher than control group (12.5%, $P=0.04$). Meanwhile, 33.3% of pregnancies ended with live birth in stem cell group that was considerably greater than control group (6.3% vs. 33.3%, $P=0.05$). **Conclusion:** This

study shows safety and efficacy of cell therapy using MenSCs to restore fertility capability of POR women. Therefore, considering easy access to sampling and isolation along with high propagation potential of these stem cells as autologous source, it seems that this therapeutic approach would have crucial effectiveness in POR women that tackle with infertility and inevitably should be referred to egg donation

کلمات کلیدی:

poor ovarian responder, menstrual blood stem cells, cell therapy, clinical trial, infertility, ICSI

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1167684>

