Journal of Gynecology and Obstetrics
2018; 6(4): 98-107
http://www.sciencepublishinggroup.com/j/jgo
doi: 10.11648/j.jgo.20180604.15
ISSN: 2376-7812 (Print); ISSN: 2376-7820(Online)

The Efficiency of Intrauterine Irrigation of the Cavitated Drug Solutes in Patients with Endometrial Receptivity Disorders

Oxana Alexandrovna Melkozerova[1], Evgeniy Yuryevich Gluchov[2], Nadezda Vasilyevna Bashmakova[1], Guzel Nuchovna Chistyakova[1], Alena Valeryevna Lvova[1], Anna Michaylovna Bogdanova[2], Aigul Adipovna Giniyatova[1], Olga Germanovna Barlit[2]

[1]Ural Research Institute of Maternity and Child Care Russian Ministry of Health, Ekaterinburg, Russia

[2]Ural State Medical University Russian Ministry of Health, Ekaterinburg, Russia

Email address:

abolmed1@mail.ru (O. A. Melkozerova), 9222241411@mail.ru (E. Y. Gluchov), dr@niiomm.ru (N. V. Bashmakova), guzel@niiomm.ru (G. N. Chistyakova), akropol.10b@mail.ru (A. V. Lvova), 79122408573@yandex.ru (A. M. Bogdanova), ajgulka@mail.ru (A. A. Giniyatova), bar-lit@yandex.ru (O. G. Barlit)

To cite this article:

Oxana Alexandrovna Melkozerova, Evgeniy Yuryevich Gluchov, Nadezda Vasilyevna Bashmakova, Guzel Nuchovna Chistyakova, Alena Valeryevna Lvova, Anna Michaylovna Bogdanova, Aigul Adipovna Giniyatova, Olga Germanovna Barlit. The Efficiency of Intrauterine Irrigation of the Cavitated Drug Solutes in Patients with Endometrial Receptivity Disorders. *Journal of Gynecology and Obstetrics*. Vol. 6, No. 4, 2018, pp. 98-107. doi: 10.11648/j.jgo.20180604.15

Received: June 6, 2018; **Accepted**: July 12, 2018; **Published**: September 17, 2018

Abstract: Evaluate the efficiency of intrauterine irrigation of cavitated low-frequency sonication drug solution in restoring of endometrial receptivity in patients with uterine infertility. 92 women with uterine infertility due to endometrial hypoplasia were examined in the dynamics of therapy including irrigation of the uterine cavity with cavitated low-frequency ultrasound with drug solutions. The control group consisted of 28 healthy fertile women. An ultrasound examination of the pelvic organs with color dopplerogragy, histological and immunohistochemical study of the endometrium was performed on the "implantation window" LH + 7, in dynamics before the start of therapy and in the next cycle after the end of treatment. After cavitation irrigation of the uterine cavity, 62 (67.39%) women with infertility in the endometrial specimens had adequate vascularization of the stroma (before treatment, 36.95%, p=0.017, in control 78.57%), in 68 (73, 91%) women - a decrease in the density of the stromal matrix, in 64 (69.56%) - according to light microscopy data, mature pinopodia were determined (initially 28.26%, p=0.0015). On the background of therapy, the ratio of ERα / PR expression in the stroma of the implantation endometrium was normalized, which was characterized by the prevalence of the PR pool (1.01±0.34 before treatment, 0.36 ± 0.03 after therapy, p = 0.040, in control 0.34±0.06, p> 0.05). The parameters of stromal expression of natural uterine killers CD56 + bright against the background of treatment in patients with infertility come in accordance with the indices of healthy fertile women (from 35.21 ± 2.14 cells in l/s to 45.75±3.18 cells l/s; in the control 47.8±2.13 cells in l/s; p> 0.05). A significant decrease in stromal expression of CD3+ is noted: 78.17±6.89 cells in l/s versus 23.83±3.63 cells in l/s; p=0.004. The expression level of CD34 in the endometrial stroma after the treatment was significantly increased (20.88±0.77 cells in l/s versus 33.83±3.63 cells in l/s, p=0.035). The use of G-CSF cavitaion solutions for irrigation of the uterine cavity appears to be effective in restoring tissue and molecular endometrial receptivity in patients with uterine infertility due to endometrial hypoplasia.

Keywords: Uterine Infertility, Endometrial Hypoplasia, Cavitation Irrigation of Uterine Cavity, Granulocyte Colony-Stimulating Factor