THE EFFICIENCY OF SCENAR ELECTROPULSE THERAPY TO OVERCOME STERILITY IN WOMEN WITH EXTERNAL GENITAL ENDOMETRIOSIS

Background. The problem of external genital endometriosis remains topical nowadays because of increased reproductive dysfunction rate. The genital endometriosis causes the sterility in 20-80% of cases (N.I.Volkov 2001; G.A.Savitsky; S.M.Gorbushin 1996; A.F.Haney 1998).


Research purpose: to increase the efficiency of reproductive dysfunction restoration in patients with genital endometriosis using a differential approach to it.

Methods and materials. According to the research purpose, we have carried out a comprehensive clinical laboratory examination of 336 patients with external genital endometriosis. They suffered from primary and secondary sterility.

The control group included 50 healthy fertile women.

First, all the patients with external genital endometriosis underwent endoscopic surgery - endometrial cysts enucleation, colliotomy, endometriosis nidus congelation (depending on the severity degree) during laparoscopy.

Second, 236 patients were treated with the complex therapy: hormone-modulatory drugs, anti-aggregants, lipid metabolism correctors, immunomodulators. The following hormone-modulatory drugs were given: Orgametril by 10mg per day continuously for 6 months (108 patients), Danol by 400mg per day continuously for 6 months (98 patients), Dyferelin 3.75mg every month, the treatment was started on 2nd day of menstrual cycle every 28 days for 6 months (30 patients).

The electropulse therapy using SCENAR-97.4+ device (RITM OKB ZAO, Taganrog) was given to other 100 patients. The SCENAR 97.4+ devices generate pulsating bipolar electric current with the pulse frequency from 10Hz to 350Hz. The device provides the frequency modulation mode (also called the oscillating frequency mode) with the variation range of 30-120Hz, amplitude modulation mode with the stimulation-to-pause ratio from 1:1 to 1:5, the mode of 2 to 8 pulses generated as batches, with the pulse rate of 540 Hz to 4.5 Hz in a batch.

SCENAR-therapy helped to increase the fertility rate 2.3 times in women with external genital endometriosis of any stage and was 68% (I stage – 75%, II stage – 66.6%, III stage – 53.3%), after the 1st course the pregnancy came in 45% of patients, after the 2nd course - in 23% of patients. The recurrences of external genital endometriosis were observed only after hormonal therapy within 6 to 18 months and were 38.2% (I, II, III stage – 22.8%, 36.9%, 45.2% respectively). If the disease pattern appeared again, the laparoscopy was carried out again where the endometrioid heterotopias were found in the same sites where they had been localized before (31.8%), in other sites (69.2%).

We didn’t observe disease recurrences (within 1.5 to 3 years) in patients who had been exposed to SCENAR-treatment.

So, if we compare the results got on the second stage of the treatment of patients with external genital endometriosis, we can draw a conclusion that SCENAR-therapy is effective and exerts optimizing influence on the hypothalamic - pituitary - ovarian system, and better on the cellular and humoral components of the immune system, hemodynamic ovarian system, and better on the cellular and humoral components of the immune system, hemodynamic parameters in the small pelvis organs, free radical and general antioxidant activity, generation of embryotoxic antibodies and anti-inflammatory cytokines. All this provides normal homeostatic characteristics and results in considerably reduced recurrence rate and better fertility.