RITM Australia Pty Ltd
Unit 4, 130-137 Pacific Hwy
Greenwich NSW 2065
PO Box 843
Lane Cove NSW 1595
Australia

ABN: 26 125 344 952

Tel: 02 8011 4217
Fax: 02 9439 1930

www.ritmscenar.com.au
Hinfo@ritmscenar.com.au

ACN: 125 344 952

SCENAR THERAPY APPLICATIONS

Borovkova L.V., Kholmogorova I. E., Umiarov R. V., Nizhny Novgorod, Russia

The Effectivity Of The Electro-Impulse Therapy With The Help Of SCENAR Device On Patients With External Genital Endometriosis (EGE)

Aim of the study

To give explanation of the influence of electro-impulse therapy (EIT) with the help of SCENAR-device on hypotalamo-hypophiso-ovarian (HHO), immune system, hemodynamics of the organs in the small pelvis and to evaluate its effectiveness for restoration of fertility and decrease of the recurrence frequency of the diseases in patients with EGE.

Materials and methods

241 patients with EGE at the age from 21 to 37 with primary (79%) and secondary (21%) infertility were examined and treated. The duration of the infertility was from 2 to 10 years (7,8 +- 0,9 years). EGE was determined by laparoscopy, conducted in the early lutein phase of the menstrual cycle, confirmed by the results from histological examination.

According to the Classification of the American society on fertility 60 (24.8%) of the patients were with 1st degree of severity of EGE, 50 (20.7%) - with 2nd degree, 111 (46%) - with 3rd degree and 20 (8.5%) - with 4th degree. All patients had no occlusion of the uterine tubes. Adhesions in the small pelvis were found out in 41% of the patients (at 1st, 2nd, 3rd, 4th degree of severity – respectively 22%, 26%, 49%, 80%).

A laparoscopy was made to all patients on the first stage of the treatment according to the spread of EGE: a coagulation of EGE sites, resection of the endometrial cists of the adnexa with a coagulation of the bed, incision of the adhesions. On the second stage of the treatment the patients with EGE were divided into two groups.

In the first group – 141 patients took hormonomodulizing preparations for 6 months (progestines – 55 patient; antigonatotropines – 51 patients; gonadotropines agonists – 36 patients).
In the second group 100 patients were treated by EIT with SCENAR device (Russia) from 1 to 3 courses according to the long scheme: 20 procedures in the first menstrual cycle and 7 procedures in the second menstrual cycle. The interval between the courses was 1 month.
The distribution of the patients by the degree of severity of EGE was adequate in both groups. 50 healthy fertile women represented the control group. The character of the menstrual cycle in all patients was studied by clinical parameters and some functional diagnostics tests (determining the rectal temperature and the cervical number).

The status of the HHO system was determined by the concentration of the luteinizing hormone (LH), the folliculo-stimulating hormone (FSH) and the steroid hormones (estradiol, progesterone, testosterone) in the blood by radio-immune assay before and after the treatment in 50 patients from each group. The immunologic status was determined by the composition of leucocytes subpopulations by cytofluorometry using monoclonal antibodies (CD3, CD4, CD8, CD14, CD16, CD19) and by the level of immunoglobulines in the peripheral blood by radial immunodiffusion in acryl gel (Manchini) in 50 patients from each group before and after the treatment.

Doplerometric examinations with qualitative assessment of the blood flow in the vessels of the small pelvis were done to all patients before and after the treatment. Statistical analysis of the obtained results was carried out by Fisher's non-parametric and ?-square methods.

Results

The examination showed that the main symptoms of EGE were algodismenorhea in 81.7% and dyspareunia in 40%, whose expression was not dependent on the spread of the EGE. The functional diagnostic tests showed that in 95% of the patients with EGE the two phase menstrual cycle was preserved with incomplete ovulation and deficiency of the lutein phase in 20% of the cases.

The results of the hormonal examinations in EGE indicate the predominance of dysfunctions of central genesis in the HHO system with an increase of the basal levels of LH and FSH, with decrease of their ovulatory peaks. As a consequence there were relative hyperestrogenia in the 1st and 2nd phase of the menstrual cycle, incomplete ovulatory peak of estradiol, decrease of progesterone level in the middle and in the 2nd phase of the menstrual cycle.

The immunologic examinations showed a depression of the T-cell and an activation of the B-cell related immunity and as a consequence – increase of the immunoglobulins of M and G class in the blood.

Analysis of doplerometric examination results of the patients with EGE showed high-resistant blood flow in all studied vessels in the small pelvis indicating an insufficient viscularization of the dominant follicle.

The recurrence rate of the disease after the hormonomodulizing therapy in a period from 6 months to 1.5 years was 38.2% (22.8%, 33.3%, 37.7% and 60% at I, II, III, and IV degrees of severity respectively). Only 25.5% of the patients with EGE become pregnant 6 months to 1 year after the hormonomodulizing therapy.

No recurrence of the disease was detected up to 1.5 years in the patients with EGE, treated with EIT in the postoperative period. 68% of the patients become pregnant (82%, 79%, 35% and 22% at I, II, III, and IV degrees of severity respectively).

It was found out that in the realization of the EIT took part both the local reflex mechanisms and the general reaction of the body to the influence of the external factor.

The local effect is expressed in activation of microcirculation processes and improvement in the trophic of tissues not only in the zone of the local influence (a stable, moderate hyperemia) but also in the viscera, conected with the given zone of the skin on principle of the skin-visceral reflex.

The general influence of the EIT is expressed in the activation of the non-specific mechanisms of the immune defense with increase of the quantity of the T-activated leucocytes, normalization of the immunoglobuline balance. A decrease of the basal levels of LH, FSH and estradiol and an increase of their ovulatory peaks occur in the HHO system.

Thus EIT , applied in the second stage of the treatment on patients with EGE, has an optimizing influence on HHO system, immune system, hemodynamic indexes in the organs of the small pelvis which leads to normalization of the homeostatic indexes and to a considerable decrease in the disease recurrence and an increase in the fertility.

SCENAR TECHNOLOGY OVERVIEW

The name SCENAR derives from: **Self-Controlled Energo-Neuro-Adaptive Regulation.**

The SCENAR is an electronic-therapy device invented by a team of Russian Scientists (Alexander Karasev and Prof. Revenko) and developed further by RITM OKB ZAO in the 1980's for use in space, where cosmonauts would have a means of treating themselves in orbit, without the need to take drugs.

RITM OKB ZAO in the only manufacturer of the original SCENAR technology.

RITM OKB ZAO now has set up a branch in Australia - RITM Australia to provide local support for their products - SCENAR devices for Professionals and Home user and Healing Blankets.

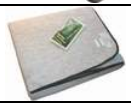
RITM SCENAR devices are CE Mark certified (the highest standard for manufacturing medical devices in the world), ISO 9001, ISO 13845.

RITM SCENAR devices are also included in the Australian Register for Therapeutic Goods Administration under TGA # 140659.

At present the SCENAR medical devices have been recognized in 60 countries all over the world: the United Kingdom, Australia, New Zealand, the Netherlands, Austria, Germany, Italy, Israel, Hungary, Czech Republic, Turkey, South Korea, the US, etc.

Over 6,000 doctors are now using the Scenar as an integral part of their medical practice.

The product range includes professional devices and devices for home users and sportsman, Healing Blankets and accesories.

	**Professional series SCENAR** devices – for medical practitioners and therapists
	**Home SCENAR device series** – sportsmen and personal home use
	**OLM** Healing Blankets and their modifications