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## **THE MODERN LOOK AT THE PROBLEM OF CHRONIC PELVIC PAIN IN WOMEN AND METHODS OF TREATING**

**Abstract:** Chronic pelvic pain syndrome (CPPS) is at least 15% of the total pathology which a women appeal to a gynecologist. At present, there are no clear criteria for diagnosis and, as a consequence, no optimal treatment regimens for this disease. The specific agents of organic gynecological pathology, which lead to cause SCPP, does not exceed 5%. An exhausting dull pain creates obstacles to the obstetrician-gynecologist. Attempts to detect a bacterial agent and prescription of antibiotics don't give a result in treatment these women.

The objective of this study was to influence the pathological changes of the pelvic nerve ganglia without any negative effects on the cyclic functioning of the uterus and ovaries.

162 women with CPPS were examined and treated. There were, 42 women (26%), who had a VAS score of 8–9 cm, 84 (52%) women, who had 6–8 cm and 36 (22%) women, who had a WAS score of 5–6 cm. 45 women were included in the control group in which treatment was performed using non-steroidal anti-inflammatory drugs. 117 patients were the study group treated by SWT-therapy on tissue and pelvic organs. In a dynamic assessment an objective change were observed in 117 (100%) patients in the intensity of pain. 96 (82%) women noted the complete lack of pain after the first course of procedures. In 12 (10%) women, the pain completely disappeared

(after VAS – 0) after the second course of SWT – therapy, and 9 (8%) patients did not notice any pain (for VAS – 0) after the third course of procedures.

Consequently, the use of SWT – therapy causes a pronounced analgesic, anti-edema, anti-inflammatory effect and has a vascular expanding effect with increased local blood flow. And it should be noted that it is safe for the woman's organism.

**Keywords:** chronic pelvic pain, ganglionneuritis, neurotransmitter, transvaginal centimeter wave therapy, visual analog scale pain.

### **Formulation of the problem**

Chronic pelvic pain syndrome (CPPS) – is a complex medical category, which includes pathological conditions in lower abdomen, pelvis, inguinal and lumbar areas, in the buttocks and the perineum, lasts more than 6 months and violates the general condition of the woman<sup>1</sup>.

Chronic pelvic pain syndrome (CPPS) – is at least 15% of the total pathology, with which a woman consults a doctor. Nowadays there are no clear diagnostic criteria and, as consequence, optimal treatment regimens of this disease. The main etiological factors of CPPS include ganglionneuritis, endometriosis, inflammatory diseases of the pelvic organs, pelvic adhesion, irritable bowel syndrome<sup>2</sup>. However, the specific gravity of organic gynecological pathology, which forms CPPS, does not exceed 5%. An exhausting, dull pain at the bottom of the abdomen leads the obstetrician-gynecologist to a dead end of diagnosing. Attempts to detect a bacterial agent, together with the urologist sometimes, the appointment of antibiotic therapy, are found to be ineffective.

Neurologist generally diagnoses “low back pain” and prescribes nonsteroidal anti-inflammatory drugs, anticonvulsants, and/or neurotropic drugs<sup>3</sup>.

Clinical signs of chronic pelvic pain:

- constant pain at the lower abdomen and lumbar area of different intensity and character, prone to irradiation lasting for more than 6 months;
- periodic exacerbations – painful crises, that appear in connection with cooling, overwork and stress;
- psycho-emotional disorders that manifest themselves as insomnia, irritability, disability, anxiety and depression;

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<sup>1</sup> Cherepova V.I., Snopkova L.V., Kandiba L.I., Sikal I.M. Chronic pelvic pain syndrome. Abstracts of the Congress. – Kharkiv, – 2010. – P. 72–74.

<sup>2</sup> Apte G., Nelson P., Brismee J.M. et al. Chronic Female Pelvic Pain–Part 1: Clinical Pathoanatomy and Examination of the Pelvic Region. *Pain Pract.* – 2011. – May 26 (5). – P. 16–19; Dick M.L. Chronic pelvic pain in women: assessment and management. *Aust Fam Physician* – 2004. – 33 (12). – P. 971–6; Fitzgerald C.M., Neville C.E., Mallinson T. et al. Pelvic floor muscle examination in female chronic pelvic pain. *J Reprod Med.* – 2011. Mar–Apr; 56 (3–4). – P. 117–22.

<sup>3</sup> Dick M.L. Chronic pelvic pain in women: assessment and management. *Aust Fam Physician* – 2004. – 33 (12). – P. 971–6.

– absence or temporary effect from usual therapy with painkillers and antispasmodic<sup>1</sup>.

Below are the ratios of pathologies, that cause CPPS in women in XX (diagram 1) and XXI (diagram 2) centuries<sup>2</sup>.

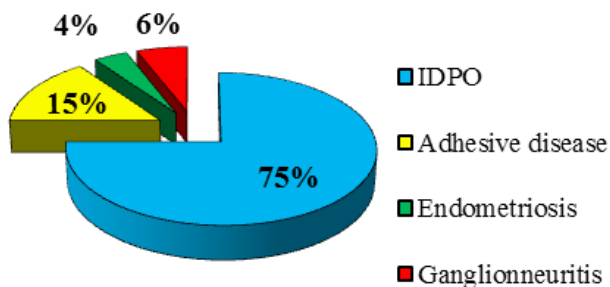


Diagram 1.

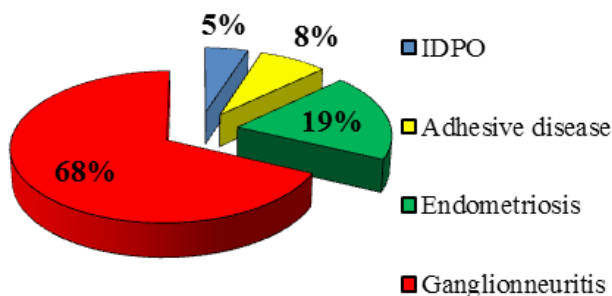


Diagram 2.

Taking into account the statistics above, it can be concluded that most of the conditions that cause CPPS in women are associated with pelvic ganglionneuritis.

Ganglionneuritis – is an inflammatory ganglion affection, involving associated with these ganglia nerve trunks.

The clinical picture of ganglionneuritis consists of severe pain syndrome, sensory impairment; vasomotor, neurotrophic, and vegetative-visceral disorders.

Pain is a complex process that causes intricate interaction between plenty of different important chemicals in the brain and spinal cord. Chemical substances interact

<sup>1</sup> Shulpekova U. O. Chronic pelvic pain in women // RMJ. – 2011. – No. 20. – P. 12–32.

<sup>2</sup> Apte G., Nelson P., Brismee J. M. et al. Chronic Female Pelvic Pain–Part 1: Clinical Pathoanatomy and Examination of the Pelvic Region. Pain Pract. – 2011. – May 26 (5). – P. 16–19; Cherepova V. I., Snopkova L. V., Kandiba L. I., Sikal I. M. Chronic pelvic pain syndrome. Abstracts of the Congress. – Kharkiv, – 2010. – P. 72–74.

while transferring pain impulse through stimulating receptors of neurotransmitters located on the cell surface: each receptor corresponds to a certain neurotransmitter.

The receptors function as a kind of gates that allow pain impulses to pass into neighboring cells. Pain receptors are thin fibers of the nerve, located in the muscles, skin and other body tissues, which, when stimulated, transmit pain impulses in the spinal cord and brain.

Typically, pain receptors respond only to a very strong stimuli. However, when the tissue is damaged or inflammation occurs, then the threshold of sensitivity is reduced due to the production of specific chemical compounds<sup>1</sup>.

Pathogenesis of pain syndrome development during ganglionneviritis lies in the initial activation of chronic infectious process, localized in ganglion<sup>2</sup>. In response, chemical substances are released. As a result of prolonged inflammation of connective tissue fibers, the consolidation of connective tissue progresses<sup>3</sup>.

**The aim of the study** was to maximize the effect on the pathological changes occurring in the pelvic ganglia, connective tissue, ligaments of the pelvis, and normalization of the pelvis muscle tone and, at the same time, have no harmful effects on the cyclic functioning of the uterus and ovaries.

#### **Materials and methods**

CPPS was diagnosed in 162 examined women of reproductive age, based on clinical pictures. Rate of VAS (visual analog scale) in 42 of them (26%) was 8–9 cm, in 84 (52%) – 6–8 cm and in 36 (22%) this indicator was within 5–6 cm.

45 women (an average sample of each group was 15 patients) were included in the control group, in which treatment of this pathology was performed using non-steroid anti-inflammatory drugs.

The study group included 117 patients. This group of women was treated with an influence of electromagnetic centimetre waves with a wavelength of 12.6 cm, a frequency of oscillations of 2375–2450 MHz on tissues and pelvic organs.

Electromagnetic centimetre waves affect ganglia and are known to have a pronounced analgesic, antiedema and anti-inflammatory effect, as well as vascular expanding effect with increased local blood flow.

There were used transvaginal centimeter wave radiators, which are included and connected to a device of CMW-therapy “LUCH-4” (manufacturer “REMA”, Lviv). The power of the effect was increased from 6 to 12 W per 2 W for each subsequent procedure. The duration of the session increased gradually from 10 to 20 minutes for

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<sup>1</sup> Apte G., Nelson P., Brismee J. M. et al. Chronic Female Pelvic Pain–Part 1: Clinical Pathoanatomy and Examination of the Pelvic Region. *Pain Pract.* – 2011. – May 26 (5). – P. 16–19. P. 3.

<sup>2</sup> *Ibid.* – P. 16–19.

<sup>3</sup> *Ibid.* – P. 16–19. P. 6.

2 minutes for each subsequent procedure. Sessions were assigned every other day, the number of sessions: 10–12. The visual scale of pain (VAS) was used to control the effectiveness.

The used power provides the therapeutic effect, but does not have a destructive effect on the surrounding tissue and does not cause a heat transfer.

### **Results of the study and their discussion**

After the patient's treatment, clinically and with a visual analog scale (VAS), the presence and intensity of the pain syndrome were assessed. In a dynamic assessment, in 117 (100%) patients who underwent CMW-therapy, there was an objective and significant change in the intensity of pain, as testified by changes in VAS of 13 or more cm.

In addition, 96 (82%) women noted complete absence of pain after the first course of procedures. In 12 (10%) women, the pain completely disappeared (VAS = 0) after the second course of CMW-therapy, and in the last 9 (8%) patients no pain was observed (VAS = 0) after the third course of procedures. Objective and significant changes in control group appeared in 4 (9%) women.

### **Conclusions**

The use of CMW-therapy causes a pronounced analgesic, antiedema, anti-inflammatory effect, has a vasodilating effect with increased local blood flow and is safe for the woman body.

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