

## Application of Short-Impulsive Stimulator "Biotonus" in the Treatment of Zoster Neuralgia

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### ABSTRACT

A total of 15 patients with Zoster Neuralgia (17-70 years old, 6 men, 6 women) were observed and treated using device "Biotonus, which acts through refractory zones by the generation of impulses. The use of the refractory zones in prevention and treatment of Zoster Neuralgia is one of the oldest and the most effective methods. The result of this action is the following: vasodilatation, which improves microcirculation, activation of the immunological system and alleviation of the pain. The matter is especially important in case of trigeminal neuralgia. Duration of the "Biotonus" action was 4 minutes for each reflex zone. Total duration of the procedure was 16-20 minutes. In 13 cases out of 15 the results were satisfactory. Thus, the "Biotonus" can be used in the treatment of Zoster Neuralgia only with the consideration of the individual complaints and features of the patient.

**KEYWORDS:** *zoster neuralgia, short-impulse stimulator, antiviral treatment, dermatitis*

Zoster Neuralgia is a very frequent syndrome in the clinical manifestation of Herpes Zoster. Its pathogenesis has been unknown yet. Many authors emphasize particular importance of immunological factors in the formation of Zoster Neuralgia, damage of the neurons and other pathogenetic changes. Sometimes antibodies, synthesized during the development of Zoster Neuralgia antibodies also have the cross-reactive features against the myelin proteins (demyelination).

It has been shown that the treatment by specific antiherpes immunoglobulins is more effective than antiviral therapy. It confirms participation of the immunological factors in Zoster Neuralgia pathogenesis.

### PATIENTS AND METHODS

In patients over 50 years old prevention and treatment with Valciclovir and Famcyclovir are more effective compared to Acyclovir therapy. A total of 15 patients with Zoster Neuralgia (17-70 years old, 6 men, 6 women) were observed. Improvement of intercostal nerves was found in 6 cases. Involvement of the Trigeminal nerve - 9 cases.

There was established a classical dermatose picture in the region of intercostal nerves: grouped vesicles on the erythematous, edematous base. It had a prodromal stage before the appearance of the skin lesions: acute, stabbing pain in the dermatomes innervated by a corresponding sensory ganglion; erythema, weakness, headache, fever, the vesicles fuse and skin tensions with festonlike margins were developed. Skin lesions were unilateral.

### RESULTS

The following clinical forms have been found:

1. pustules with transparent content, which were soon changed to purulent or hemorrhagic liquid (only when the process was localized in the derma) - 7 cases;
2. bullies forms - lesions with large bulls - 4 cases;
3. mild form (abortive form) - 4 cases.

Constitutional symptoms did not always determine the degree of the damage. Pain was the sharpest in the

region of trigeminal nerve (6 cases). Our treatment was the following: Acyclovir, Zovirax (per os), Acetylsalicylic acid (Aspirin), Maxigan, Trigan, antibiotics, B1 and B6 vitamins. Solutions of anilin dyes for a skin application were also used. Ointments with antiviral substances: 3% onsolin 3-5%, Tebrofen ointment, Zovirax, Virdex. The treatment relieved destructive process in the skin but different side effects were revealed.

We diagnosed Zoster Neuralgia after proceeding of the pain over 4 weeks. It was sharp and severe and lasted during the years. According to the above-mentioned data that the treatment by "Biotonus" is very appropriate during the Zoster Neuralgia treatment. It acts through refractory zones by the generation of impulses. We marked these zones according to the world-widespread classification in acupuncture by which the first number means the skin region, and the second - acupuncture points on it.

The use of the refractory zones in prevention and treatment of Zoster Neuralgia is one of the oldest and the most effective methods. As we already mentioned, it acts through the generation of impulses.

The result of this action is the following: vasodilatation, which improves microcirculation, activation of the immunological system. Alleviation of the pain. The matter is especially important in case of trigeminal neuralgia.

Duration of the "Biotonus" action was 4 minutes for each reflex zone. Total duration of the procedure was 16-20 minutes.

The following reflecting zones were used in the case of involvement of any branch of the trigeminal nerve: 2,10 3,36:7 6:10 5:11 20:13 14:13, 23.

In case of the intercostals nerves - 2,11:5,7:7,13:7, 19:7,23. We started treatment after consultation with the internist and neurologist.

In 13 cases out of 15 the results were satisfactory. Thus, the "Biotonus" can be used in the treatment of Zoster Neuralgia only with the consideration of the individual complaints and features of the patient.

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## **Использование короткоимпульсного стимулятора "Биотонус" в лечении постзостерной невралгии**

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### **Р Е З Ю М Е**

Под наблюдением находились 15 больных постзостерной невралгией (ПЗН) в возрасте от 17 до 70 лет (9 мужчин и 6 женщин). С целью снятия болевого синдрома предложен аппарат "Биотонус", предназначенный для воздействия импульсным электрическим током на кожные проекции рефлексогенных зон. Оптимальный терапевтический эффект от применения аппарата "Биотонус" был получен при дифференцированном использовании рефлексогенных зон с учетом локализации кожного процесса, длительности и частоты воздействия импульсных токов.

**Ключевые слова:** *постзостерная невралгия, импульсные токи, антивирусное лечение, дерматиты*