Ac-tive - Innovative needles for electroacupuncture

Development status

Phase 4

The transition from the prototype to the final and fully functional form. At this stage, the prototype is already fully tested, or the technology is certified and ready for mass deployment.

IP protection status

Trademark AC-TIVE ENF Know-how to use the method Know-how for the production of a new type of needles

Partnering strategy

Collaboration, investment, spin-off

Institution

Palacký University Olomouc

Vlastník

Univerzita Palackého v Olomouci

Challenge

Partial loss of movement or significant limitation of physical activity of a person is practically a constant topical issue not only for doctors and physiotherapists but also for patients and their loved ones. The disruption of a human's nervous system significantly affects his or her quality of life and the close ones around him or her. Restoring or considerably improving the patient's mobility and other functions is challenging. This is why we developed Ac-tive ENF (electro-acupuncture neuromuscular facilitation). A unique electro-acupuncture treatment method that makes the first positive results for the patient much earlier than with conventional rehabilitation techniques and is thus much more effective. The uniqueness of the procedure lies primarily in the application of specially developed needles that increase the effectiveness of the entire treatment. The main advantage: practical applicability, quick effectiveness in treatment, and, above all, significantly lower pain.

Description

Ac-tive ENF is a unique method for the treatment of nerve paralysis, which was developed by combining medical acupuncture and knowledge of physical medicine, which is used in rehabilitation medicine. The results of using the method in practice so far are a powerful tool to restore functional movement in patients with nervous system damage. Active ENF focuses primarily on cases of loss of movement resulting from stroke, head injury with brain damage, cerebral palsy, brain surgery, spinal cord injury, etc. Painful conditions such as rheumatoid arthritis, tennis elbow, golf elbow, heel spurs, spinal pain, and others are also limiting factors in healthy movement, which Active ENF can also eliminate. The Ac-tive ENF method consists in activating the acupuncture pathways by means of specially developed needles that are applied to the acupuncture points. Thanks to the unique development of acupuncture needles, the application is also less painful for the patient and the whole process is controlled by the patient according to his/her pain threshold. The new generation of needles is developed in such a way that the electric current only passes through their tip, thus increasing the selectivity of the electro-

stimulation. This also increases the effectiveness of the method. The diagnosis is carried out first and then the damaged parts are treated. After the needles are injected into the patient's skin, electrical impulses are introduced into the needles to stimulate the entire acupuncture pathways as well as individual acupuncture points in the areas of paralyzed body parts. The form of application of the method depends on the type of damage to the nerve structures or the type of pain. During application, the intensity of the current depends on the individual patient and his subjective perception. Thus, the intensity of stimulation of acupuncture pathways and points is not determined by the doctor, but by the patient. In this way, the maximum comfort of the patient can be ensured so that the application is not unpleasant. The innovative solution for motor issues that Ac-tive ENF offers is more pleasant for the patient compared to the classical form of electroacupuncture. Currently, more than 400 patients with paralysis have been successfully treated using the Ac-tive ENF method, with photo documentation and other forms of testing to verify the clinical effect.

Commercial opportunity

The Ac-tive ENF method can be used in all rehabilitation and other medical facilities that care for patients with motion loss. In addition, a spin-off company has been established to develop the method itself, certify new needles, and introduce it into routine clinical practice.