

VII. ELECTRO-ACUPUNCTURE

Electro-acupuncture is done on the basis of filiform-needle acupuncture. It applies a pulsed electric current to certain body parts through a filiform-needle, so as to prevent or cure diseases.

1. EFFECT AND SELECTION OF DIFFERENT PARAMETERS OF ELECTRO-ACUPUNCTURE

(1) Waves

A. Continuous wave

The output frequencies of most electro-acupuncture apparatus are between 1Hz and 100Hz. In general, continuous waves with a frequency below 30Hz are known as low waves, and those above 30Hz are called high waves.

Low waves can cause muscle contractions, produce strong tremors, strengthen muscle ligament tension, regulate blood vessels for improving blood circulation, and promote the recovery of neuromuscular function. It has a good effect on neural muscle paralysis.

High waves produce weaker tremor, so they may immediately reduce pain when applied. If the time of treatment is too long the analgesic effect may decline. High waves are often ap-

plied to incisions.

According to the character of the neural absolute refractory period, waves with a frequency above 1,000Hz can have a good local analgesic effect.

B. Alternative waves

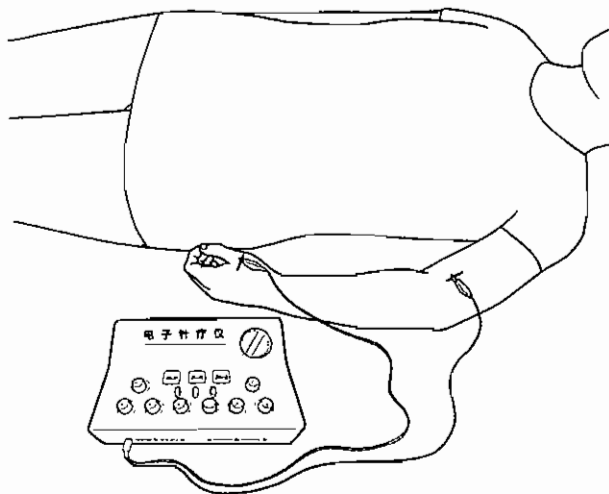
These are waves with alternating low and high frequencies. The alternation of frequencies is about 1.5s or so. Such waves are often used for acupuncture anesthesia. The alternating current can strengthen the blood and lymph circulations and ion operation, and adjust the nutritional metabolism of the tissues. It also has some effect on soft tissue injuries, strain of the lumbar dorsal fascia, and nervous muscle paralysis.

C. Discontinuous waves

As a combination of waves with intermittent rhythm, this is a pulse sequence generated through continuous waves after rectangular modulation. Compared with continuous or alternative waves, this has a stronger tremor, so it has better effects for treating cerebrovascular problems, encephalitis B, polio sequelae and some peripheral neuropathy caused by muscle atrophy diseases.

(2) Frequencies

Different frequencies of electro-acupunc-



ture can stimulate the nerve centers to release different kinds of neurotransmitters, which have different biological and analgesic effects.

(3) Intensity

Electrical stimulation intensity must be carefully gauged according to what the patient can tolerate, so as to maximize the effect of needling.

(4) Pattern of acupuncture points

Electro-acupuncture should be applied in pairs of points. The best option is to use 1 to 3 pairs (2-6 points). Indifferent electrode should be used for single-point acupuncture.

2. INDICATIONS

Electro-acupuncture can adjust the human physiological functions, so as to relieve pain, promote blood circulation and adjust problems such as muscle tension. It can treat a wide scope of problems—for all kinds of pain and numbness, and dysfunction of the heart, stomach, intestines, bladder, uterus, or other organs. It can also be used to treat muscle, ligament, and joint diseases, and used in acupuncture anesthesia.

3. MANIPULATIONS

(1) Before starting the electro-acupuncture apparatus, check that all output knobs or buttons are set at "zero."

(2) Choose the right acupoints, and operate according to the method of filiform-needle acupuncture, and gain the qi.

(3) Output connection

Insert the plug in the corresponding output socket. The output electrodes are connected to the handle or body of the filiform needle. For single-point acupuncture, an output electrode is connected to the acupoint and the other connected to the indifferent electrode. Ensure the connection is tight.

(4) After making sure of the power supply,

switch on the electric acupuncture instrument, adjust the waveform and frequency knobs.

(5) Adjusting the output intensity

Adjust the corresponding output knobs, step by step, slowly increase the output amplitude to whatever degree the patient can tolerate, or according to the provisions of the operating instructions, within the permitted scope of regulation strength, making sure that the patient does not suffer from a shock, and then adjust waveform and frequency.

During the electro-acupuncture treatment, if it is necessary to change the wave and frequency, be sure that the output intensity should be adjusted to minimum before changing the wave and frequency.

(6) Shutting off the machine and removing the needle

When the electro-acupuncture treatment is completed, slowly adjust the intensity back to zero, switch off the source of electricity, and remove the electrode wire.

4. PRECAUTIONS

(1) First read the instructions carefully before using electrical acupuncture apparatus.

(2) When treating areas such as the brain and spinal cord the electricity flow should be small, to avoid a strong stimulus to the central nervous system.

(3) The electricity flow is not allowed to go through the heart, for example, the points of the left and right upper limbs are never used in the crossing pair in electro-acupuncture treatment.

(4) During treatment, if the patient faints, the electro-stimulation should be stopped immediately, and the patient should be treated with the measures for acupuncture fainting.

(5) During treatment strictly ensure that each output current loop is unobstructed and

that there is no poor contact between the output electrode and filiform needle.

(6) The use of needle points for attention also applies to electric acupuncture.

(7) Electric acupuncture instruments should be maintained on a daily basis: Refer to the product's instructions for use.

5. CONTRAINDICATIONS

For contraindications, consult the instrument's instruction manual.

The local areas of tumors and skin lesions, abdomen of pregnant women, regions close to the heart and near the carotid sinus, and those patients who have had cardiac pacemakers fitted are banned from electro-acupuncture.

VIII. MOXIBUSTION

Moxibustion treats and prevents diseases by applying heat to points or certain locations of the human body. The material used is mainly "moxa-wool" in the form of a cone or stick. For centuries, moxibustion and acupuncture have been combined in clinical practice, thus they are usually a linked term in Chinese. The seventy-third chapter of *Miraculous Pivot* states, "A disease that may not be treated by acupuncture may be treated by moxibustion." In *Introduction to Medicine* it says, "When a disease fails to respond to medication and acupuncture, moxibustion is suggested." The important functions of moxibustion are clearly mentioned in these medical works.

I. THE MATERIALS AND TOOLS FOR MOXIBUSTION

(1) The Property of *Artemisia Vulgaris* Moxa

Artemisia Vulgaris is a species of chrysanthemum. The kind produced in Qizhou County

is known as the best for moxa, as the climate and soil are good for its growth. The leaves of the Qizhou artemisia are thick and with much more wool. Moxa cones and sticks made of this kind of artemisia are thought to be the top-quality ones used in moxibustion.

A New Edition of Materia Medica includes the following description: "The moxa leaf is bitter and acrid, producing warmth when used in small amounts and strong heat when used in large amounts. It is of pure yang nature, having the ability to restore the primary yang from collapse. It can open the 12 primary meridians, traveling through the three yin meridians to regulate qi and blood, expel cold and dampness, warm the uterus, stop bleeding, warm the spleen and stomach to remove stagnation, regulate menstruation and ease a fetus... When burned, it penetrates all the meridians, eliminating hundreds of diseases." Yang qi can be activated by the artemisia leaf because of its warm nature. The acrid odor of the leaf can travel through the meridians, regulate qi and blood, and expel cold from the meridians, and its bitter nature resolves dampness. As a result, it is used as a necessary material in moxibustion treatment. In addition, the moxa wool can produce mild heat, which is able to penetrate deeply into the muscles. If it is replaced by other materials, an intolerable burning pain will result, and the effect will be found to be poorer.

(2) Materials for Moxibustion

Moxa wool, moxa cones, moxa sticks, matches and a tray should be ready.

1) Making moxa cones

Place a small amount of moxa wool on a board, knead and shape it into a cone with the thumb, index and middle fingers in three sizes. The smallest is as big as a grain of wheat; the medium size is about half that of a date stone,