A Review on Electro acupuncture

Tanushree Deshmukh¹, Pratik Phansopkar²
¹Department of Musculoskeletal Physiotherapy, Ravi Nair Physiotherapy College, Datta Meghe Institute of Medical Science, Sawangi (Meghe). Wardha, Maharashtra, India.
²Associate Professor & HOD, Department of Musculoskeletal Physiotherapy, Ravi Nair Physiotherapy College, Datta Meghe Institute of Medical Sciences, Swangi Meghe, Wardha, Maharashtra, India.

Email: drpratik77@gmail.com
DOI: 10.47750/pnr.2022.13.S06.393

Abstract

Acupuncture is a traditional Chinese treatment for pain. Acupuncture is a 3000-year-old traditional therapy from China. Electroacupuncture is similar to traditional acupuncture in that it uses electrical stimulation. It works similarly to orthodox acupuncture in that it excites the same regions. As with conventional acupuncture, needles are inserted at designated points on the body. The needles are then coupled to a gadget that leverages tiny clips to establish a consistent electric pulse. These devices alter the frequency and strength of the impulses based on the condition being treated. Electroacupuncture uses two or more needles at the same time to allow impulses to pass from one needle to the next. This can be performed by using a standard TENS machine attached to the needles via cables and crocodile clips by using commercially available electroacupuncture machines.

Keywords: Acupuncture, Electroacupuncture, physiotherapy, electroacupuncture therapy, electrotherapy.

INTRODUCTION

Acupuncture is a traditional Chinese treatment for ailments and pain relief. Acupuncture is a Chinese traditional treatment that dates back to 3000-years. It's rooted in metaphysical ideas about "Chee" (Qi), a mythical body energy that runs through imaginary "meridians." It is supposed to be a universal energy. (1)(2). Acupuncture with electroacupuncture is a newer type of acupuncture. It makes use of electricity to promote the therapeutic advantages of this age-old therapy. Electroacupuncture is more effective than manual acupuncture (3)(4). Electro acupuncture employs needles in the same locations as traditional acupuncture. After that, the needles are fitted with a tiny electrode. During therapy, a small amount of energy passes through the electrode, causing it to vibrate or emit a gentle hum. This can be performed by using a standard TENS machine attached to the needles via cables and crocodile clips, or by using commercially available Electroacupuncture machines(5)(6)(7)(8) . TENS is used to treat pain in the same way that acupuncture has been used. Through surface electrodes on the patient's skin, a transcutaneous electrical nerve stimulator offers lower energy in the form of pulsing rectangular pulses. To generate a current with a specific stimulating effect, a modest battery-operated gadget is commonly employed. It's intended to enable with pain modulation and pain gating mechanisms(8)(9).

Acupuncture

Açu is a Greek word that means "needle." Acupuncture means puncture with needle. Insertion of very thin needles into the skin at specific sites. In some cases, it's combined with an electric pulse and sometimes used with herbal heat. Acupuncture is a traditional Chinese treatment for ailments and pain relief. Acupuncture is a Chinese traditional treatment that dates back to 3000-years. It's rooted in philosophical ideas about "Chee" (Qi), a mythical body energy that runs through imaginary "meridians." It's said to be a type of universal energy. The Chinese word "Qi" literally means "life force" or "vital energy," which makes its way through the body's meridians. According to TCM (Traditional Chinese Medicine), Qi is the vital energy or life force. Everything in the world, including a person's physical body and emotions, is made up of qi. (1) (10)(11)(12)(13).

Techniques of acupuncture
Moxibustion: Moxibustion is a traditional Chinese medicine treatment that involves burning dried mugwort on specific body locations.

Cupping: Cupping treatment is a type of alternative medicine in which a heated cup is used to generate a local suction on the skin.

Acupuncture: Acupressure practitioners apply pressure to acupoints on the body's meridians with their fingers, palms, elbows, or feet, as well as special instruments.

Electroacupuncture: Electric current apply on needles(1).

**Electroacupuncture**

Acupuncture with electroacupuncture is a newer type of acupuncture. It involves use of electricity to enhance the health efficacy of this age-old therapy. Electroacupuncture is more effective than manual acupuncture. Electro acupuncture employs needles in the same locations as traditional acupuncture. After that, the needles are fitted with a tiny electrode. During therapy, a small amount of energy passes through the electrode, causing it to vibrate or emit a gentle hum. Electro acupuncture involves the insertion of two or more needles into each meridian point, or acupuncture point, and their interconnection to a machine that administers a small electric current through them. The electro-machine has the ability to spin swiftly, preserve treatment steadiness, and modulate stimulation. Electroacupuncture involves inserting needles by hand and then attaching them to a device that generates an electrical current to stimulate the needles. This can be performed by using a standard TENS machine attached to the needles via cables and crocodile clips, or by using commercially available Electroacupuncture machines(2) (7) (8)(7)(6)(14).

**Mechanics of Electroacupuncture**

Electroacupuncture works by stimulating bioactive molecules in your body to block pain, this procedure may make you less sensitive to the pain you are experiencing. It has also been demonstrated to aid in the reduction of inflammation in the body(4)(12)(10). Your sympathetic nerve fibers are activated when you receive electroacupuncture. Endogenous opioids, such as endorphins, are released when these fibers are activated, which aid to decrease inflammation. The nerve fibers that have been stimulated may also aid in the reduction of persistent pain. As a result, it's become a prominent strategy for treating chronic pain and stress(6)(15)(16) Studies have also demonstrated that electroacupuncture could help your body release mesenchymal stem cells (MSCs) into your circulation. MSCs, or adult stem cells, are most often found in the bone marrow. MSCs aid in the establishment of various tissues in your body. They have therapeutic effects as well (12)(13).

**Applicability of Electroacupuncture**

Acupuncture and electroacupuncture can be used concurrently. Perhaps it would aid in the treatment of neurological illnesses, chronic pain, muscle spasms, and paralysis, among other conditions.

Increased blood process is laminar to be a virtue of electroacupuncture. This might assist you to get rid of whatever agony you're having. Acupuncture of this type also warms your muscles. It might aid with the rehabilitation of circulatory problems and potential obstructions(12)(13). Another problem that electroacupuncture has been demonstrated to aid with is chronic stress. This type of therapy, according to research, can help you mitigate long-term chronic stress by invigorating your brain(12)(13). Acupuncture has been utilized as a therapeutic treatment for pain, especially chronic pain syndromes, for decades. Electro acupuncture is a newer form of acupuncture that has taken over as a replacement of traditional acupuncture(1) (7)(13)(11). Another problem that electroacupuncture has been demonstrated to aid with is chronic stress. This type of therapy, according to research, can help you mitigate long-term chronic stress by invigorating your brain(12)(13).

**Risk factors of Electroacupuncture**

Electroacupuncture has a few drawbacks. Because of the electricity utilized in this type of acupuncture, it is not suggested for certain people to try it. Electroacupuncture can cause a few side effects for certain people such as: Seizures, Heart disease, Strokes, Epilepsy, nausea(mild). When the needle is inserted, you may experience dizziness, mild discomfort, or faintness, as
well as light bleeding. Infection at the needle site can cause redness or bruising, though this is uncommon when single-use sterile needles are used. (12-26)

Fig A: acupuncture points on the meridians

Fig B: Using electricity to stimulate acupuncture points

TENS:

TENS is used like an acupuncture in the pain management. The transmission of low-frequency current in the form of pulsed rectangle current through surface electrodes on the patient's skin to alleviate pain is known as transcutaneous electrical nerve stimulation. To generate a current with a specific stimulating effect, a modest battery-operated gadget is typically utilized. Types of TENS High TENS [ traditional TENS ], Low TENS [ acupuncture TENS ], Burst TENS, Brief intense TENS, Modulated TENS (27-45)

Summary:

The present article reviewed at acupuncture and electroacupuncture. Acupuncture is a traditional Chinese pain-relieving technique. Acupuncture is an ancient Chinese treatment that has been practiced for over 3000 years. Electroacupuncture is a modern variation of acupuncture. In electroacupuncture needles employs on the same point as traditional acupuncture, after that, needles connected with cables and crocodile clip. Then a small number of current passes through cables causes vibration and emit gentle hum. Electroacupuncture helps in the treatment of illness such as neurological disease, chronic pain, muscle spasm and paralysis.
REFERENCES


19. "[No Title Found]." INTERNATIONAL JOURNAL OF PHARMACEUTICAL SCIENCES AND RESEARCH, 12, no. 1 (n.d.)


