Nursing Depths Series. 2022; 1:25 doi: 10.56294/nds202225

REVIEW



The usefulness of acupuncture and acupressure considering the orofacial structures

Utilidad de la acupuntura y digitopuntura teniendo en cuenta las estructuras bucofaciales

Farianny Quesada Rodríguez¹ ® ⊠, Anachel Cruz Sánchez¹ ® ⊠, Haila Yelina Dominguez Durive¹ ® ⊠

¹Facultad de Ciencias Médicas Isla de la Juventud. Isla de la Juventud, Cuba.

Cite as: Quesada Rodríguez F, Cruz Sánchez A, Dominguez Durive HY. The usefulness of acupuncture and acupressure considering the orofacial structures. Nursing Depths Series. 2022; 1:25. https://doi.org/10.56294/nds202225

Submitted: 11-01-2022 Revised: 23-03-2022 Accepted: 16-05-2022 Published: 17-05-2022

Editor: Dra. Mileydis Cruz Quevedo D

Corresponding Author: Farianny Quesada Rodríguez

ABSTRACT

A literature review was conducted to explain the usefulness of acupuncture and acupressure, taking into account the orofacial structures. Documentary analysis methods were used to search for information, using websites, documents, journals, books, theses, and scientific articles, for a total of 47 bibliographic sources. Analytical-synthetic methods, historical-logical analysis, and interviews were used during the research process. Acupuncture is one of the most widely used forms of traditional and natural medicine in stomatology. It is currently used in stomatological therapy and is an effective, economical method that is free of side effects and produces analgesia. It is used to treat oral and facial conditions such as toothache, mouth ulcers, gingivitis, stomatitis, trauma and temporomandibular joint dysfunction by modulating pain through the stimulation of touch and pressure nerve fibres that are punctured at each acupuncture point in the oral and facial structures.

Keywords: Acupuncture; Acupressure; Pain; Orofacial Structures.

RESUMEN

Se realizó una revisión bibliográfica con el objetivo de explicar la utilidad de la acupuntura y digitopuntura teniendo en cuenta las estructuras bucofaciales. Se emplearon los métodos de análisis documental para la búsqueda de información, mediante páginas electrónicas, documentos, revistas, libros, tesis, artículos científicos, para un total de 47 fuentes bibliográficas; y los métodos analítico-sintético, análisis histórico-lógico y la entrevista durante el proceso de investigación. La acupuntura es una de las modalidades de la Medicina Tradicional y Natural más aplicadas en Estomatología, vigente en la terapéutica estomatológica, siendo un método eficaz, económico, libre de efectos secundarios y que produce analgesia. Se emplea para tratar afecciones bucofaciales como odontalgias, aftas, gingivitis, estomatitis, traumas y disfunción de la articulación temporomandibular; mediante la modulación del dolor por medio del estímulo de las fibras nerviosas de tacto y presión que se puncionan en cada punto acupuntural de las estructuras bucofaciales.

Palabras clave: Acupuntura; Digitopuntura; Dolor; Estructuras Bucofaciales.

INTRODUCTION

The history of acupuncture goes back some five thousand years. The first authoritative document to appear in the history of acupuncture is the Hoang Ti Nei King (Yellow Emperor's Canon of Medicine), compiled and

© 2022; Los autores. Este es un artículo en acceso abierto, distribuido bajo los términos de una licencia Creative Commons (https://creativecommons.org/licenses/by/4.0) que permite el uso, distribución y reproducción en cualquier medio siempre que la obra original sea correctamente citada

revised during the Chin and Han dynasties (206 BC - 200 AD) called the character-analytic dictionary, which explains the method of using stones to treat diseases and they point out that this may represent the most crucial method of acupuncture in the history of acupuncture.c) called an analytical dictionary of characters, which explains the method of using stones to treat diseases, and they point out that this may represent the most primitive method of acupuncture and that the conditions of the use of fire created the conditions for the use of moxibustion, being considered the oldest known therapeutic methods.⁽¹⁾

Eastern peoples created and developed these methods over several centuries, with references to the Stone Age and the early use of sharp stones, thorns, and other instruments to alleviate pain and disease. The methods of diagnosis in traditional Asian medicine are observation (including the ear and tongue), auscultation, interrogation, palpation, and pulses.⁽²⁾

They further point out that with the continuous development of production, stones were replaced by needles made of bone or bamboo, and in the Shang dynasty (16th to 11th centuries B.C.E.), bronze needles were made; the use of metal was highly significant in the development of acupuncture treatment.⁽¹⁾ In our era, the first extensive treatise on medicine is devoted to the physiology and pathology of the channels and viscera, acupuncture points, and discusses the indications and contraindications of acupuncture and moxibustion.⁽²⁾

The Kuomintang government banned Chinese medicine during the republic (1912), and the development of acupuncture was dealt a severe blow. In 1955, the government of the People's Republic of China officially recognized traditional medicine as being on an equal footing with Western medicine.⁽²⁾

The symbol that summarises this theory is the Tao. This sign represents unity in its circle, constituting two opposing forces but complementing each other, eternally flowing into each other. The darker area is attributed to the supreme YIN, with its lower oblong part representing the earth and the supreme YANG at its wider upper end representing the universe.⁽³⁾

The line that defines it is not straight, indicating it constantly moves when it reaches its energetic maximum. Inside the YIN area is a small circle representing the small YANG, just as in the uppermost YANG area, a small circle named YIN. One exists because the other exists, and it is impossible to separate them without denying the other; they flow eternally and are found everywhere, regulating all things with their movement. YIN and YANG are related to medicine, anatomy, physiology, and pathology. We cannot separate man from nature; he must live in harmony with nature.⁽³⁾

Bioenergetic medicine includes a set of non-conventional methods, some of which have recently been developed from ancient techniques, aiming to restore and maintain the harmonious functioning of the human organism. In this discipline, man is considered holistically if we think he is a set of subsystems that integrate human beings and are subordinate to the different levels of organization of matter with which he is related. This conception, together with the success achieved in recent years, has meant that an increasing number of people worldwide are turning to this medicine to relieve or heal various conditions.⁽⁴⁾

Understanding the meridian system and acupuncture and its points in modern science is essential to facilitate studying and applying acupuncture-related techniques. The model that connects to centers of organization in the control of morphogenesis and growth related to acupuncture points, ⁽⁵⁾ Cranial acupuncture is a therapy performed with needles on specific areas of the skull to treat certain diseases. It was created and developed through a combination of traditional acupuncture theories and techniques and knowledge of modern physiology and anatomy of the nervous system based on extensive scientific research. ⁽⁶⁾

Many countries have developed acupuncture, including Japan, Vietnam, Mongolia, the People's Republic of Korea, Europe, France, America, Mexico, Nicaragua, and Argentina. (2) In Cuba, in 1915, a newspaper quotation from a colonel of our Liberation Army appeared. He commented on having observed how some Chinese combatants improved their ailments during the War of Liberation with sticks pricking on specific skin areas. (7)

Until 1959, Western medical concepts prevailed, and it was with the triumph of the revolution that the study of acupuncture began to be stimulated, as well as other methods of Traditional and Natural Medicine. In the 1970s, acupuncture began to be practiced in various institutions in the country, and its use increased in response to the need to seek alternative ways of public health.⁽⁷⁾

From the 1980s onwards, the Cuban National Health System developed a policy to expand the knowledge and use of Traditional Medicine in close collaboration with the Revolutionary Armed Forces, the Ministry of the Interior, the Cuban Academy of Sciences, and other state bodies. Cuban doctors were sent to China, Vietnam, Korea, the former USSR, Sri Lanka, and others, who contributed to raising the scientific-technical level of Cuban professionals to give courses to other health professionals subsequently.⁽⁷⁾

In our country, Professor Pérez Caballas published a Manual of Acupuncture in 1980 and initiated many doctors to practice this therapy. The Medical Services of the FAR, taking into account the difficulties that arose in our country during the Special Period, began the specialization of doctors in Traditional Military Medicine in 1991, under the guidance of our Professor Armando Álvarez. By the end of 1995, more than 40 specialists had been trained in three graduations. The achievements of introducing these traditional techniques leave the foundations created to consolidate the efforts between the Medical Services of the FAR and Public Health to

develop Acupuncture as a Speciality in Cuba. (8)

On the Isle of Youth, Natural and Traditional Medicine has undergone several stages, from isolated and empirical practice by doctors who had access to literature on the subject or personal contact with the Japanese settlement in the municipality to its correct application by trained personnel. (9) Currently, the modalities comprising Traditional and Natural Medicine (TNM) are widely used in the specialties that make up the Cuban health system, as they are systematically applied as another therapeutic approach in treating different conditions. (10)

The applicability of its methods plays an essential role in reducing the use of diagnostic resources. Secondly, its therapies favor a marked reduction in the use of medicines and the secondary reactions they produce. (10) Various authors highlight the value of its mastery and application as another form of treatment for different stomatological conditions, as well as emphasizing its applications, advantages, and the need to study its theoretical and practical foundations in greater depth, which will help to develop the skills necessary for its appropriate use. (11)

The same authors state that it acquires greater importance in undergraduate and postgraduate teaching, as well as in international aid and collaborations with other countries. At present, where there is an economic, social, and global crisis, natural disasters, and war conflicts, there is an urgent need for therapeutic measures that are economical and affordable for those cases with stomatological conditions that require them.⁽¹¹⁾

Traditional Asian medicine considers two therapeutic fields, one of which is external medicine: acupuncture, acupressure, acupressure, massage, bloodletting, cupping, moxibustion, and internal medicine, which is based on the formulation of drugs, whether of mineral, plant or animal origin. The basic principles of all phenomena in nature, including life, are derived from this great philosophy: birth, growth, aging, death, and transformation of matter. (4)

One of the limitations of TRM is the lack of sufficient research based on the application of a scientific method for the acquisition and evaluation of the results obtained or the incorrect design of studies, especially those involving the assessment of TRM therapeutic or diagnostic agents or procedures, through clinical trials (CTs). (12)

Acupuncture is an ancient technique widely used in daily medical practice. Its most outstanding characteristic is its powerful analgesic, sedative, and relaxing effect, which is the basis for its application in stomatological treatments. (13) Therefore, undergraduate students must receive an update on this therapeutic modality in the Stomatological Sciences to demonstrate its usefulness in treating conditions in the stomatognathic apparatus.

General Objective

To explain the usefulness of acupuncture and acupressure, taking into account the oral and facial structures.

DEVELOPMENT

Acupuncture is one of the treatment methods of traditional Asian medicine to prevent and treat diseases by stimulating specific points on the body with needles of different types. (14) It originated in China; later, different types of acupuncture emerged, such as Japanese and Korean. The World Health Organisation (WHO) has published documents and standardized guidelines on the subject that have allowed its use to spread even more widely throughout the world; this method is economical, simple, harmless, and effective in painful conditions when applied correctly by professionally trained personnel, as well as being used in psychosomatic disorders associated with psychosocial factors. (15,16)

Different therapeutic methods can be applied, such as digital pressure, thermopuncture, massage, and cupping. They are combined with electrical methods, lasers, and medicine injections.⁽¹⁷⁾

In Cuba, acupuncture emerged after 1959 and increased in the 1970s as another means of treatment due to its advantages for stomatological conditions; today, its use is widespread in both developing and developed countries. (11) Cuba's National Programme of Traditional and Natural Medicine establishes which modalities of Traditional and Natural Medicine should be used in clinics, (18) including acupuncture, acupressure, and acupuncture analgesia.

This program also reflects the conditions that can be treated with acupuncture in stomatology. These include analgesic treatment of odontalgia, aphthae (acupuncture and acupressure), gingivitis (acupuncture), stomatitis (acupressure, acupuncture), alveolitis (acupuncture, acupressure), pericoronitis (acupressure), digitopuncture (acupuncture), hemorrhages (acupuncture), trauma (acupressure and acupuncture).

At the secondary level, acupuncture is used in temporomandibular joint dysfunction (acupuncture, acupressure), acute gingivitis as an adjuvant treatment, and gingival and periodontal abscesses (acupuncture). In maxillo-facial surgery, acupuncture analgesia is used in all surgical procedures, acupressure, natural products, and homeopathy as a sedative in the postoperative period. (18)

The human organism is an energy field that interacts with the energy found outside in the environment. Through it, this energy travels through channels linked by small spaces called points. These channels are also called meridians. So, meridians are energetic pathways that ensure the proper functioning of the human

organism. The classification of meridians is extensive. (3) According to Traditional Asian Medicine, meridians are classified into principal and extraordinary meridians.

The main meridians are the thick and long trunks in the deepest region.

They are divided into four types: (19)

- 12 regular meridians.
- 8 extraordinary meridians.
- 12 distinct meridians.
- 12 tendinomuscular meridians.

The secondary meridians, thinner and shorter than the main meridians, are branches that start from the main meridians and extend into the superficial region.

They are divided into three types:(19)

- 12 transverse rak vessels.
- 15 longitudinal rak vessels.
- 365 vessels.

Acupuncture points are located along the path of the principal meridians. They are named after the meridian, with the order number added depending on how the energy flows through them.

Classification of acupuncture points: (20)

- 1. Meridian points (there are 365 of them, and they belong to 12 regular and two extraordinary meridians).
 - 2. Points outside the meridians.
 - 3. Ashi points (pain points: they are painful on compression when the disease occurs).

In addition to the above, specific points, such as the points of the face, ears, iris, tongue, hands, and feet, constitute microsystems.

Methods of locating acupuncture points

Clinically, there are methods to locate acupuncture points; we can use the following: (20)

- 1. Localisation of the points according to surface anatomy details.
- 2. Measurement by digital length (used to locate points) using the length of the patient's fingers as a criterion; if their structure is similar to our own, we can use the length of our fingers:
 - a) To measure with the middle finger: take the distance between the two folds that mark the joints of the distal and medial phalanges of the middle finger as a tsunami.
 - b) For measuring with four fingers (index, middle, ring, and little finger). The width of the four fingers joined at the proximal interphalangeal joint is calculated as one fu, an old measurement equivalent to 3 tsun.
 - c) For measuring with the thumb, the width of the interphalangeal joint of the thumb is taken as one tsunami.
 - d) For measuring with two fingers (index and middle fingers), the width of the two fingers joined at the distal interphalangeal joint is calculated as 1,5 tsun.

The tsun (tsun cun) is a measure of length in acupuncture used to locate points or indicate the depth of needle insertion. One tsun is divided into 10 fen. It is necessary to clarify that the tsunami is proportional to the same body region of different people and has different magnitudes.

Methods of Applying Acupuncture

The methods used to apply acupuncture are needle stimulation and stimulation intensity regulation, the latter being the most commonly used. There are three methods of regulating the intensity of the stimulus:⁽²¹⁾

- 1. Tonification method: the needles are stimulated clockwise (10 minutes).
- 2. Sedation method: the needles are stimulated counterclockwise (approximately 20 minutes).
- 3. Semi-sedation and semi-sedation method: This method has medium excitation compared to the previous methods. It is applied in cases of an undetermined diagnosis.

Pain modulation

The theoretical basis for using acupuncture and acupressure for pain relief is the mechanism of pain modulation via the touch and pressure fibers from basic biomedical science. The endogenous opioid peptide system provides a solid basis for analgesic treatments produced by classical acupuncture and modern electroacupuncture. The analgesia produced by these can be blocked mainly by naloxone, suggesting that somehow,

the energy channels stimulated by the acupuncture points promote the activation of this opioid system. (22) Other authors refer to nerve theories. (23)

Gateway theory

According to this theory, the placement of acupuncture needles and their subsequent stimulation at acupuncture points produces 'fine' touch, pressure, or pain signals transmitted by the fast A-beta fibers; this stimulus is conducted to the substantia gelatinosa in laminae II and III of the dorsal horn of the spinal cord, exiting it and producing inhibition, This stimulus is performed to the substantia gelatinosa in laminae II and III of the dorsal horn of the spinal cord, exciting it and producing inhibition of the first transmitting cell of the spinothalamic tract (T-cell), blocking the transmission of the painful impulse or closing the entry gate according to the theory of Melzack and Wall. (2) The pain stimulus is conducted by the A-delta and C fibers, which are slower and thinner, and on reaching the dorsal horn of the spinal cord, it is blocked from transmission to the brain. (23)

It is important to note that the response threshold of the A beta fibers is lower than the response threshold of the A-delta and C fibers, so the level of stimulation should be above the threshold of the A beta fibers, which corresponds to the cramp threshold, but below the threshold of the A-delta and C fibers, which would correspond to the pain threshold. The area between the two thresholds is called the specific therapeutic zone. (23)

According to Mok⁽³⁾, acupuncture induces a series of changes along the ascending pain pathways and the descending inhibitory system; by this mechanism, one of the most affected areas is the interneuronal activation in the spinal cord; the activation of these neurons prevents the conduction of pain intensification mechanisms to the cortex. In addition, acupuncture activates the raphe nucleus magno and stimulates the hypothalamus, attenuating pain perception.⁽²³⁾

Thalamic integration theory. This theory states that a painful stimulus produces nociceptive discharges in the parafascicular nucleus of the thalamus, which is sent to the centromedian nucleus, and from there, the information continues through other nerve fibers to the cerebral cortex. When acupuncture points are stimulated, the centromedian nucleus of the thalamus, under the effects of endorphins, sends inhibitory stimuli to the parafascicular nucleus, thus inhibiting pain transmission.⁽²³⁾

Application of Acupuncture in Stomatology

In the Stomatological Sciences, many pathologies can be treated urgently; within all of them, pain is almost always the predominant symptom. When the stomatologist makes the diagnosis on the patient, they can follow a series of rules to carry out the treatment scheme, selecting the acupuncture points to press or prick that are in the affected area (local points) that correspond to the meridians. Another choice can be to choose points that are located distal to the pathology to be treated and can be found in reduced areas of pain that do not correspond to meridian points or outside of them and that, according to the Asians, are areas that should be punctured "taking the painful place by a point to be treated, these points are called Ah-Shi. (24)

Among the meridians to be selected for treatment are those in the area of the face, such as the stomach, small intestine, large intestine, gall bladder, triple function, conception vessel, and governor's vessel. (24) Acupuncture has been applied as an effective treatment for painful dysfunction of the temporomandibular joint, eradicating trismus in patients with this condition; the effectiveness of acupuncture analgesia in periodontal surgical therapies has been demonstrated, with a predominance of satisfactory responses to this procedure. (25)

Sánchez Rodríguez R⁽²⁶⁾ also reported its use in exodontia with a satisfactory response in a high percentage of patients with no pain during the procedure, minor bleeding, and rapid healing. Peña Makeira AR et al. (27) state that the patients to whom acupuncture was applied remained asymptomatic in the transoperative period and proved that it is an effective technique in the postoperative period following tooth extractions, regardless of the location and condition of the tooth.

Jung A et al.⁽²⁸⁾, in a review of 13 electronic databases of research conducted up to July 2015 on the use of acupuncture for the symptomatic treatment of temporomandibular joint disorders, demonstrated that the evidence for acupuncture as a symptomatic treatment in this condition is limited and that rigorous studies are required to establish the therapeutic value of acupuncture for this indication. Laser acupuncture has been reported to be used in the treatment of pericoronitis, with a favorable evolution.⁽²⁹⁾ The stimulation of acupuncture points harmonizes the energy accumulated in the affected meridians, promotes the proper functioning of this energy, and regulates its circulation, as well as releasing endogenous opioids that block the pain pathway and raise the pain threshold.⁽³⁰⁾

The analgesic efficacy of acupressure has been reported for the most common pains in the dental office, such as localized and diffuse odontalgia, trigeminal neuralgia, pericoronitis, and ulcerations of the soft tissues of the oral cavity. It is also a non-invasive technique with simple, low-cost results, requiring no special skills, with immediate analgesic action, producing no side effects, and offering an additional therapeutic option for treating various stomatological diseases and conditions. (31) The practical application of acupressure in relieving pain produced by acute pulpitis prior to conventional treatment has also been reported, with satisfaction with

this modality in most of the patients studied, in whom the use of anesthetics was unnecessary. (32) Most commonly used points according to their effects when stimulated: (24) Analgesic points:

- Large intestine (GI) 4.
- Stomach (E) 43 and 44.
- Small intestine (SI) 18.

Sedatives:

- Governing Vessel (VG) 20.
- Heart (C) 7.
- Lung (P) 6 and 7.

Anti-inflammatory:

- Governing Vessel (VG) 14.
- Large intestine (GI) 11.
- Basal (B) 6.

Immunologicals:

- Governing Vessel (VG) 14.
- Large intestine (GI) 11.
- Stomach (E) 36.
- Basal (B) 6.

Hemostatic:

- Large Intestine (GI) 11.
- Basal (B) 6.
- Stomach (E) 36.

Most commonly used points in stomatology: (33,34,35)

- IG4: located on the dorsal side of the hand, between the first and second metacarpal, it is the most analgesic point. It is used for headaches, ophthalmic pain, insomnia, pain in the face and teeth, arthritis of the jaw, and nervous depression.
- E3: when locating this point, it should be noted that the levator labii superioris and levator anguli oris muscles are located under the skin and subcutaneous cellular tissue. Regarding innervation, the facial nerve's infraorbital nerve and buccal branches are found in the area. In the deeper portion are anastomotic branches formed by branches of the facial artery and vein and the infraorbital artery and vein. It is used in odontalgia, neuralgia, facial paralysis, glaucoma, and myopia.
- E7: in the location of this point, it should be taken into account that under the skin and the subcutaneous cellular tissue are the masseter, lateral pterygoid, zygomatic muscles, and the parotid gland. About innervation, there are branches of the auriculotemporal nerve and zygomatic branches of the facial nerve in the area, as well as the transverse facial artery and vein. The deepest portion of the maxillary artery and vein and the middle meningeal artery are in the vascular aspect. Regarding the nerve bundle, we have the inferior alveolar nerve, the lingual nerve, and the pterygoid plexus. Below the zygomatic arch, it is used in odontalgia, arthritis of the temporomandibular joint (TMJ), trigeminal neuralgia, facial paralysis, and hearing disorders.
- E44: located between the second and third fingers, it is an analgesic point for lower limb pain, headache, epigastralgia, and tonsillitis.
- C7: can be located with the arm in supination, situated in the anterior region of the forearm, in a depression on the radial side of the tendon of the flexor carpi ulnaris muscle, at the level of the transverse fold of the radiocarpal joint behind the pisiform bone. It is a special point that modifies the psychic response, being valued as a tranquilizer, with effects on anxiety, palpitations, and states of hysteria.
- ID8: located on the posterior aspect of the elbow joint, with the elbow flexed at 90°. It is used in gingivitis.
- VG 26: located immediately below the nose, in the midline, at the junction of the upper and middle thirds. Especially in emergencies, such as shock, fainting, lipothymia, hysteria, epilepsy, and palpitations, acupressure can be applied to it.

In the literature consulted on the application of acupuncture in TMJ dysfunction, JM Charles and Caparros

refer to the meridians, which, due to their location and course, have a direct relationship with the TMJ and nearby areas: (36)

- Small intestine.
- Triple reheater.
- Gall bladder.
- Stomach.
- · Large intestine.
- Bladder Meridians in direct contact with the TMJ.
- Small intestine.
- Triple reheater.
- · Gall bladder.
- Stomach.

Several points stand out in the area: ID 19, TR 21, VB 2, E 7, E6, TR 17, VB 20, VB 21.

Acupuncture points used in the treatment of TMJ dysfunction:(37)

- Sedative head yang with local occiput and neck points: VB 20, VB 21, TR 15, TR 17.
- Local points of the TMJ: VB 2, TR 21, TR 22, ID 19, E 7.
- Yang drainage with distal points: VB 34, TR 10, ID 8, H 3, IG 4.
- Balancing psychic tension: VC 14, VC 17, VG 20, C 5, C 6.

Acupuncture is also used in the treatment of stomatological emergencies. The related meridians can treat any condition in any tooth at the specific points indicated for the treatment of some stomatological emergencies, such as:(38)

- Stomatitis: large intestine (GI) 4, stomach (E) 36, governing vessel (VG) 27 and heart (C) 7.
- Trismus: stomach (E) 6 and 7, small intestine (SI) 18, and gall bladder (GB) 34.
- Haemorrhage: spleen (B) 10 and bladder (V) 17.
- Restlessness: lung (P) 6 Governing Vessel (GV) 20 and heart (C) 7.
- Resuscitation: governor vessel (VG) 26, (R) 1.
- Temporomandibular joint (TMJ) arthrosis: thermoregulator (TR) 21, small intestine (SI) 19, and gall bladder (GB) 2.
 - Lipothymias: governor vessel (VG) 26, stomach (E) 36, and kidney (R) 1.
- Cheilitis: stomach (E) 4, Governing Vessel (GV) 26 and 24 and distal points Small Intestine (SI) 3 and Large Intestine (GI) 4.
 - Hypertension: heart (C) 7, liver (H) 3, and kidney (R) 1.

Advantages of Acupuncture

Acupuncture is a low-resource-consuming procedure and is highly effective in the adjunctive treatment of chronic pain. The reduction in the intake of drugs in patients with pain also translates into an increase in quality of life, a decrease in side effects, a reduction in the economic cost to the health system, and an increase in user satisfaction.⁽³⁹⁾

Acosta Navarro et al. (40), in their literature review on the application of acupuncture in stomatology, pointed out that this modality remains valid in therapy, is a practical, economical, harmless method, free of significant side effects, and can usually produces analgesia in cases of allergy to local anesthetics in clinical and surgical treatments. It also reduces salivation and nausea, which facilitates orthodontic and prosthetic treatments. It improves or cures many stomatological affections by applying the different methods available, such as digitopuncture, electropuncture, thermopuncture, and laserpuncture; it also provides sedative or stimulating effects, improving the psychological response in the patient.

It regulates homeostasis, immune defensive, and anti-inflammatory responses in clinical and surgical treatments after stimulating different specific acupuncture points. In the review by Roasted P, Bundgaard M, Fiske J, and Pedersen AM, it was found that in orthodontics and prosthodontics, the use of acupuncture has had favorable results in reducing nausea and vomiting at the time of impression taking in patients treated in these services.⁽⁴¹⁾

The authors of this literature review agree that acupuncture or its modalities constitute another form of treatment for stomatological conditions and that it is, therefore, necessary to deepen theoretical and practical knowledge of the advantages of its use. They also consider it essential to comply with the provisions of the Curricular Strategy for the application of Traditional and Natural Medicine from the first year of the course and the contribution made by the actions of the different subjects to achieve the development of skills in this sense. (41)

The present review identified that acupuncture is effectively used in the treatment of numerous conditions

in stomatology. It is one of the most reported modalities of Traditional and Natural Medicine in the articles reviewed, with reduced side effects, quick and easy application, reduced costs to the health system, and increased patient satisfaction.

Effects of acupuncture: (20)

- 1. Subjective effects:
 - a) Pain on needling.
 - b) Take or take (acupuncture sensation).
- 2. Objective effects:
 - a) Analgesic.
 - b) Sedation.
 - c) homeostatic regulator
 - d) Immunological.
 - e) Psychological.
 - f) Motor (motor recovery).

Contraindications for acupuncture: (21)

- Neoplasms.
- Fever syndrome.
- Asthenic patients.
- · Infectious diseases.
- Decompensated heart failure.
- Active pulmonary tuberculosis.
- · Organic cardiac and renal conditions.
- Blood diseases.
- State of acute psychic excitement.
- Fatigued patients.
- · Alcoholic intoxication.
- Pregnancy.
- Patients under 1 year of age and over 75 (use with caution in the latter age group).

Acupressure techniques: (20)

In acupressure, the points are manipulated by simply applying finger pressure and performing a kind of micro-massage whose action is comparable to that triggered by using a needle.

Finger pressure can be practiced according to four basic techniques: (20)

- Pressure with the fingertips. The pressure must be intense and has a Sié effect (drainage of excesses) on the energy called Wei.
- Pressure with the fingernail. Again, the pressure must be intense, and a Sié impact on the energy called Young must be determined.
- Pressure with two fingers on the sides of the point, but pulling in a centrifugal direction. Sié effect, but on the Young energy.
 - Pressure with two fingers on the sides of the point as if you wanted to pull out a splinter.

It has a Pou effect (reinforcement of the deficient energy). For the first two techniques, many specialists advise combining simple pressure with a rotating massage of two or three cycles per second, but without ever separating the finger from the point or rubbing the skin.⁽²⁰⁾

In most cases, the points are bilateral, so pressure should be exerted on both points symmetrically unless there is a specific contraindication. The pressure can be applied for 1-5 minutes, and the treatment can be used daily. The massage is done mainly with the thumb pad, keeping the thumb straight. When a point is sore and hardened, it is massaged with the thumb by rotating it lightly without supporting it or exceeding the pain limit. (42)

The pain gradually disappears, and the area softens; press a little harder until the pain is felt again and continues. This gradually eliminates the pain and the contraction. When the pain is particularly concentrated at one point, its symmetrical counterpart on the opposite limb or side should be acted upon. To facilitate the free circulation of energy, it is advisable to remove rings, necklaces, and watches when practicing acupressure, as metals concentrate the energy according to their nature. (43)

How are acupressure points stimulated?

Points can be stimulated or activated by crushing them with the index finger, thumb, or a knuckle. By

exerting continuous pressure and making tiny circles with the fingertip. Each indicated point can be stimulated several times daily for 3 to 4 minutes. It is favorable for stimulating the point on both sides of the body. (44)

When should acupressure not be used?(45)

- When the person has just eaten, bathed, or done moderate or intense physical exercise. In this case, wait for about half an hour.
- When the point to be stimulated is lying on a scar, varicose vein, or abscess, the same point can be stimulated on the other side of the body if the area is healthy.
 - If the person is intoxicated or very upset, it is recommended to wait until either state disappears.

Alberto Luo, in his acupuncture manual, mentions other times when this method should also not be performed: (20)

- Within four hours after ingesting any drugs, alcoholic beverages, food, or medicinal plants.
- If you take daily medication (except vitamins).
- If you have any cardiac pathology or suffer from any disease related to the change or degeneration of tissues, such as arthritis, cancer, cataracts, tumors, or varicose veins.
 - Immediately before or within half an hour after a hot bath or physical exercise.
 - If the pressure point is under a scar, infection, varicose vein, or inflammation.
 - During pregnancy, especially after the third month.
 - If the patient is emotionally disturbed.

The application of acupressure is practical because, apart from the advantages mentioned above, it has other advantages, such as:(46,47)

- It is a convenient and straightforward method.
- The patient or a second person can apply it.
- There is more than one point for the same pain so that several points can be combined.
- They can be used in emergencies.
- Acupressure does not cure everything but helps alleviate a lot of discomfort and does not interfere with other types of treatment.
- It can be applied as a repetitive therapy and with a high degree of safety as there are no side effects or adverse reactions.

Of course, not everything has to be good with traditional medicine, mainly if it is not used rationally; there can be disadvantages, such as: (45,46)

- Delaying the use of other, more effective treatment methods.
- Delaying the use of other, more effective treatment methods.
- Increasing treatment costs in some cases.
- · Encourage fraud.

Disadvantages of acupressure: (45)

- It can cause pain in the area where pressure is applied.
- Reddening of the area where it is applied may be observed.
- The patient may self-diagnose and use it without first consulting a doctor and obtaining a professional diagnosis, which represents a danger.

Treatment schedule for oral conditions:

- General odontalgia -----IG 4; E 44; E 6, 7
- Odontalgia of the upper arch------IG 4; E 7; E 44
- Odontalgia of the lower arch------IG 4; IG 7; E 6
- Trigeminal neuralgia------IG 4; TR 17; VB 20
- Alveolitis------IG 4; ID 5; PC 8; P 11; VG 2
- Aphthous stomatitis------IG 4; ID 3; TR 20; VG 2
- Cellulitis (opposite side treated) -----IG 4; E 2, 44; TR 5
- Post-surgical bleeding---P 9; TR 5; H 6; VB 17, 39, 41; E 36
- Painful TMJ syndrome-----IG 4; VB 2; ID 19; TR 21
- TMJ dysfunction.-----VG 20; VB 8-24; E 6, 7, 12; V 10
- Facial paralysis-----V 1, 2; E 6 to E 4
- Gingivitis-----TR 8; IG 4, 10; VB 3; E 42; ID 17, 18
- Salivation disorders------VC 24; E 4, 5, 6
- Bruxism-----P 7, MI 4; VG 23

In an interview carried out by the authors with Vicente Mejías Argote, a licensed nurse, it was found that VG 20 is a relaxing point that can put the patient to sleep in the dental chair. When combined with other points, it achieves greater analgesic results. Taking into account the criteria and experience of this personality, the most commonly used points for analgesia and exodontia are: IG 4, E 6, E 44, ID 18, SJ 23, VB 14, ID 6, VB 1, ID 18, SJ 21, P 7.

CONCLUSIONS

Acupuncture is still relevant in stomatological therapeutics; it is a practical, economical, and innocuous method, free of side effects, and produces analgesia. It treats multiple oral and facial conditions, including analgesic treatment of odontalgia, aphthous ulcers, gingivitis, stomatitis, trauma, and diffusion of the temporomandibular joint. It effectively relieves pain by stimulating the nerve fibers of touch and pressure punctured at each acupuncture point of the orofacial structures.

BIBLIOGRAPHIC REFERENCES

- 1. Pérez Mulet A, Martínez Acosta B. Digitopuntura. Rio Bamba: Editorial Epicentro; 1996.
- 2. Rigol O. Manual de acupuntura y digitopuntura para el médico de la familia. Ciudad de La Habana: ECIMED; 1992.
 - 3. Pargas Torres F. Enfermería en la medicina tradicional y natural. La Habana: ECIMED; 2005.
- 4. Dovale Borjas C, Rosell Puig W. Elementos básicos de Medicina Bioenergética. La Habana: Editorial Ciencias Médicas; 2001.
- 5. Shang C. El mecanismo de la acupuntura. http://www.acupunturachina.com/espaniol/articulos/mecanismos.html#2
- 6. Cáceres C. Qué es la craneopuntura. http://www.acupunturachina.com/espaniol/articulos/craneopuntura.html
- 7. Do Vale Borjas C, Rosell Puig W. Elementos básicos de medicina bioenergética. La Habana: Editorial Ciencias Médicas; 2001.
- 8. Instituto Nacional de Medicina Tradicional de Hanoi. Temas de Acupuntura. Ciudad de La Habana: Instituto de Medicina Militar; 1984.
- 9. Hernández E. La Medicina Bioenergética y Natural: su aplicación en la Isla de la Juventud. 2011. http://www.monografias.com/trabajos72/medicina-bioenergetica-natural/medicinabioenergetica-natural2.shtml
- 10. Villate Gómez F. Consideraciones de la medicina tradicional en su combinación con la medicina occidental y el enfoque diagnóstico. Rev Cub Med Mil. http://scielo.sld.cu/scielo.php?pid=S0138-65572013000100016&script=sci_arttext
- 11. Acosta Navarro ME, Trujillo Alayón A, Travisas Herrera EM, Delgado Fernández R. La acupuntura y su aplicación en estomatología. Rev Cubana Estomatol. http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0034-75072012000200009
- 12. Negret Hernández M, Naranjo Rodríguez S, Ponce Santoyo M, Pineda Cruz A, Vichot Fernández L. La calidad en el diseño del ensayo clínico en la Medicina Tradicional Natural. Rev Méd Electrón. http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1684-18242012000300009
- 13. Cabana SJ, Ruiz RC. Analgesia por Acupuntura. Rev Cub Med Mil. http://scieloprueba.sld.cu/scielo.php?script=sci_arttext&pid=S0138-65572004000100007
- 14. Tosar Pérez MA, Álvarez Díaz TA. Medicina Natural y Tradicional en la Atención Primaria de Salud. En: Álvarez Sintes. Medicina General Integral. 2a ed. La Habana: Editorial Ciencias Médicas; 2008. p. 687-710.
- 15. Kreiner M, Zaffaroni NA, Álvarez R, Clark G. Validation of a simplified sham acupuncture technique for its use in clinical research: a randomized, single blind crossover study. Acupunct Med. http://www.ncbi.nlm.nih.gov/pubmed/20351375

- 11 Quesada Rodríguez F, et al
 - 16. Pérez Carballás. Manual de acupuntura. MINSAP; 1991. p. 1-3.
 - 17. Licea O. Proyecto Asma. Un modelo de calidad de vida aplicado a la salud humana. La Habana; 2002.
- 18. Cuba. Ministerio de Salud Pública. Programa Nacional de Medicina Tradicional y Natural. La Habana; 1999.
- 19. Macías Lozano HG, Loza Menéndez RE, Guerrero Vardelly D. Aplicación de la medicina natural y tradicional en odontología. Rev Científica de Investigación. 2019;3(2):756-780. http://reciamuc.com/index.php/RECIAMUC/article/view/365
- 20. Hernández Falcón L, García Rodríguez I, Garay Crespo MI. Manual de terapias naturales en Estomatología. La Habana: Editorial Ciencias Médicas; 2011.
 - 21. Acupuntura Estomatológica. ECURED. http://www.bvs.cu/index.php/Acupuntura_Estomatol%C3%B3gica
- 22. Pérez Ruiz AO. El estomatólogo: su relación con el dolor y la sangre. La Habana: Editorial Ciencias Médicas; 2008. p. 197-199.
- 23. Aranda Álvarez R, Fonte Villalón M, Leiva Samuels L, Abre MJ, Correa J. Analgesia acupuntural. Su aplicación en estomatología. Rev Med Isla Juventud. 2013;14(2):151-170.
- 24. Gonzalez Naya G, Montero del Castillo ME. Estomatología General Integral. La Habana: Editorial Ciencias Médicas; 2013. p. 380-388.
- 25. Cabrera Villalobos Y, Álvarez Llanes M, Gómez Mariño M, Malcom Castillo ME. Oclusión y estrés en el síndrome dolor-disfunción temporomandibular. Arch Med Camagüey. http://scielo.sld.cu/scielo.php?pid=S1025-02552009000300018&script=sci_arttext
- 26. Sánchez Rodríguez R. Exodoncia con acupuntura. Policlínico René Vallejo: Bayamo 1998-1999. MULTIMED. http://www.multimedgrm.sld.cu/articulos/2000/v4-1/9.html
- 27. Peña Makeira AR, Martín Reyes O. Evaluación del postoperatorio en exodoncias con electroacupuntura vs tratamiento convencional. Arch Med Camagüey. http://www.amc.sld.cu/amc/2003/v7supl1/700.htm
- 28. Jung A, Shin BC, Lee MS, Sim H, Ernst E. Acupuncture for treating temporomandibular joint disorders: a systematic review. J Dent. http://www.ncbi.nlm.nih.gov/pubmed/21354460
- 29. Rosales Álvarez Z, Rodríguez Cabrera KM, Díaz Cruz CE. Láserterapia y láserpuntura como tratamiento en pericoronaritis. Rev Cienc Méd Pinar Río. http://scielo.sld.cu/scielo.php?pid=S156130942011000300004&script=sci_arttext
- 30. Pérez Arredondo R, Díaz Fernández JM, Miniet Díaz EL, Torres Ramos D. Eficacia de la electroacupuntura en la pericoronaritis del tercer molar inferior. MEDISAN. http://bvs.sld.cu/revistas/san/vol13_4_09/san05409. htm
- 31. Martín Díaz J, Pérez Viña M. Introducción de la dígitopuntura en la estomatología cubana. Rev Cubana Estomatol. http://www.bvs.sld.cu/revistas/est/vol33_2_96/est03296.htm
- 32. Betancourt Gamboa K, Barciela Calderón J, Guerra Menéndez J, Alberti Vázquez L, Rodríguez Ramos S. Acción analgésica de la dígitopuntura en pulpitis agudas. AMC. http://scielo.sld.cu/scielo.php?pid=S1025-02552011000100009&script=sci_arttext
 - 33. Rigol O. Manual de Acupuntura y Digitopuntura para el Médico de la Familia. La Habana: ECIMED; 1992.
 - 34. Juliao E. Salud y medicina China. http://saludymedicinachina.com
 - 35. Xiaguan E7. Salud y medicina China. http://saludymedicinachina.com

- 36. Charles JM, Caparros M. Acupuntura en disfunciones de la articulación temporomandibular. http://www.metgesacupuntors.org/resources/pdfs/congres_2011/17-30hcharles-josep-m-caparros-mm.pdf
- 37. Bellón Leyva S, Aldama Bellón Y, Echarry Cano O. Actualización terapéutica en Medicina Natural y Tradicional en Estomatología. http://www.sld.cu/galerias/pdf/sitios/pdvedado/actualiz_mnt__estomat.pdf
- 38. Gonzalez Naya G, Montero del Castillo ME. Estomatología General Integral. La Habana: Editorial Ciencias Médicas; 2022.
- 39. Collazo Chao E. Efectividad de la acupuntura en el dolor refractario al tratamiento farmacológico. Rev Soc Esp Dolor. http://www.sciencedirect.com/science/article/pii/S1134804609709140
- 40. Sari E, Sari T. Role of acupuncture in orthodontic patients with gag reflex. Br Dent J. http://www.ncbi.nlm.nih.gov/pubmed/20489741
- 41. Roasted P, Bundgaard M, Fiske J, Pedersen AM. Use of acupuncture for gag reflex in alginate impression. Br Dent J. http://www.ncbi.nlm.nih.gov/pubmed/17159959
- 42. Abarca Zúñiga M, Hernández Solórzano L, Ureña FL, Montero Jiménez N, Salas Rojas J. Uso de analgesia acupuntural en extracciones dentarias. Rev iDental. 2020;12(1). http://www.idental.periodikos.com.br/article/5fe3a1d20e8825680212bf19/pdf
- 43. Martín Díaz J, Pérez Viñas M. Introducción de la digitopuntura en estomatología cubana. Rev Cubana Estomatol. http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0034-75071996000200003
- 44. Suárez Betancourt D, Cabrera Benitez L, Leonard Pérez LM, Reyes Fariñas C, Trimiño Hernández E, Ruíz Díaz ML. Digitopuntura en cefalea migrañosa. Rev Méd Electrón. http://www.revmedicaelectronica.sld.cu/index.php/rme/article/view/1871/3265
- 45. Santana Rodríguez BM, Mederos Arévalo A, Rodríguez Santana J. Digitopuntura como alternativa en parálisis facial. MEDISAN. http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=\$1029-30192019000400681
 - 46. Álvarez Díaz TA. Manual de Acupuntura. La Habana: Editorial Ciencias Médicas; 1992.
- 47. Morón Rodríguez F, Levy Rodríguez M. Farmacología General. 1a ed. La Habana: Editorial Ciencias Médicas; 2002.

FINANCING

None.

CONFLICT OF INTEREST

None.

AUTHORSHIP CONTRIBUTION

Conceptualisation: Farianny Quesada Rodríguez, Anachel Cruz Sánchez, Haila Yelina Dominguez Durive.

Data curation: Farianny Quesada Rodríguez, Anachel Cruz Sánchez, Haila Yelina Dominguez Durive.

Formal analysis: Farianny Quesada Rodríguez, Anachel Cruz Sánchez, Haila Yelina Dominguez Durive.

Research: Farianny Quesada Rodríguez, Anachel Cruz Sánchez, Haila Yelina Dominguez Durive.

Methodology: Farianny Quesada Rodríguez, Anachel Cruz Sánchez, Haila Yelina Dominguez Durive.

Project management: Farianny Quesada Rodríguez, Anachel Cruz Sánchez, Haila Yelina Dominguez Durive.

Resources: Farianny Quesada Rodríguez, Anachel Cruz Sánchez, Haila Yelina Dominguez Durive.

Software: Farianny Quesada Rodríguez, Anachel Cruz Sánchez, Haila Yelina Dominguez Durive.

Validation: Farianny Quesada Rodríguez, Anachel Cruz Sánchez, Haila Yelina Dominguez Durive.

Visualisation: Farianny Quesada Rodríguez, Anachel Cruz Sánchez, Haila Yelina Dominguez Durive.

Writing - original draft: Farianny Quesada Rodríguez, Anachel Cruz Sánchez, Haila Yelina Dominguez Durive.

Writing - proofreading and editing: Farianny Quesada Rodríguez, Anachel Cruz Sánchez, Haila Yelina Dominguez Durive.

Dominguez Durive.