

INFLUENCE OF FOUR SESSIONS OF AURICULOTHERAPY ON GENERALIZED PAIN IN AMATEUR SURFER

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Abstract: Analgesia provided by auriculotherapy can be a beneficial ally in non-drug pain treatments. Therefore, the objective of the present study was to verify the influence of four sessions of auriculotherapy in an amateur surfer with generalized pain. In this case study, the patient underwent four sessions of auriculotherapy, with needles, moxibustion and finalization with seeds, spheres or crystals. At the beginning and end of each session, the patient answered five questions, with responses based on the Likert scale, about their pain sensation. After one month of treatment, the results showed that, according to the answers, there was an improvement in pain during each of the sessions and a decrease in the chronic sensation of pain. Therefore, it can be concluded that auriculotherapy was beneficial for the acute improvement of generalized pain.

Keywords: Auriculotherapy. Acupuncture. Analgesia. Chronic pain. Traditional Chinese medicine.

INTRODUCTION

Acupuncture, currently considered as a complementary integrative therapy, is an ancient Chinese science and medicine, which has records of more than 3,000 years (WHITE; ERNST, 2004; MANHELMER et al., 2005; VICKERS et al., 2012; ZHANG et al., 2013; ZHENG; YUAN; LIU, 2014; PILKINGTON, 2015; SIONNEAU, 2015). According to Sionneau (2015), Traditional Chinese Medicine (TCM) is based on the premise of Taoism, treating the individual's entire system as a whole, according to the balance of the five elements: fire, earth, metal, water and wood. Within TCM, acupuncture is one of the aspects of treatment. According to the author, the general theory of acupuncture is based on the premise of the energy flow "Qi", which when interrupted by imbalances generates diseases. The needles stimulate

specific points, restoring the flow of Qi (ZHANG et al., 2013). Currently, there are several lineages of acupuncture, from various countries such as China and Japan in the East, and France in the West, practiced worldwide (WHITE; ERNST, 2004).

In traditional Chinese treatment, a diagnosis of the patient is carried out, through anamnesis, pulse evaluation and a few more methods such as checking the tongue, iris, among others (depending on the acupuncturist and the patient), from which a treatment. This may involve the application of needles at specific points (puncture), moxibustion, stimulation of points by massage (acupressure), application of seeds, magnets, radionic crystals and stipers, as well as electrotherapy and diet therapy (WHITE; ERNST, 2004; ZHANG et al, 2013; SIONNEAU, 2015).

According to TCM, acupuncture must be preventive (SIONNEAU, 2015). However, in the modern world this rarely happens. This way, it ends up being used as a complementary treatment by the majority of patients and many times, after no medication or other treatment is taking effect. This occurs especially in cases of chronic pain, for which acupuncture is the most cited alternative option in the scientific literature (WHITE; ERNST, 2004; MANHELMER et al., 2005; VICKERS et al., 2012; ZHANG et al., 2013; ZHENG; YUAN; LIU, 2014; PILKINGTON, 2015), although it is still questioned (ZHENG; YUAN; LIU, 2014) due to the lack of consistent scientific data.

According to Santos et al. (2021), the analgesia that acupuncture provides is due to the stimulation of small-diameter nerves. These nerves, with different thresholds, send messages to the spinal cord, activating gray area and hypothalamus neurons, initiating endogenous opioid mechanisms. Another way of releasing these, instead of the systemic

placement of needles, is the use of the patients' ear, with the corresponding points of the energy meridians. Each ear has reflex points of the organs, as well as of the body functions and specific regions. These ear stimulations, called auriculotherapy, are able to relieve various symptoms in distant regions of the body (SANTOS et al., 2021; SILVERIO-LOPES; SEROISKA, 2013; ARAÚJO; ZAMPAR; PINTO, 2006; FINKLER; MARTIM, 2019; KUREBAYASHI et al., 2017; JIMENEZ et al., 2014). Thus, auriculotherapy treatment can become an interesting non-drug tool for various sports, including Surfing.

According to Novack and Osiecki (2014), Surfing is a modality that requires strength, dynamic balance and good aerobic capacity from its practitioners. Because it is a modality practiced in highly unstable conditions, there is a need for constant training of these valences, aiming at increasing physical capacity. In turn, this seems to depend on neurological adaptations more than on visual input, understanding that postural control is obtained most of the time by the athletes' proprioception. Since strength is insufficient or balance fails, the athlete is exposed to a greater likelihood of injury. Thus, one can understand a wide universe of sports injuries in assiduous practitioners of the modality.

Considering the pain that Surfing injuries can cause, the aim of the present study was to verify the influence of four sessions of auriculotherapy on an amateur surfer with generalized pain.

MATERIAL AND METHOD

TYPE OF STUDY

This article was based on a case study, descriptive and quantitative, considering a non-drug treatment for generalized pain. The sample consisted of a 42-year-old amateur surfer who reported disabling pain that persisted for more than two months. He

regularly participated in amateur surfing and windsurfing competitions. After accepting to participate in the study and signing the TCLE, the subject participated in 4 sessions of auriculotherapy, once a week, lasting approximately 45 minutes. The sessions used Dong Bang Ting needles (DBC 132), Moxa sticks for auriculotherapy, gold and silver spheres, as well as seeds and radionic crystals for auriculotherapy.

INSTRUMENT

A simple questionnaire, represented in chart 1, was developed for this study, based on the Likert scale, in an attempt to quantify the sensation of pain.

PROCEDURES

The four sessions were held in 2019 and followed the same procedures, all based on Chinese auriculotherapy. From the moment the patient sought the acupuncturist for treatment, he was asked if he would agree to participate in the study. After consent, the first session was scheduled. The patient scheduled the sessions according to the availability of patient/acupuncturist schedules, with sessions taking place weekly, totaling about 1 month of treatment.

All sessions took place in home care, in a room reserved and equipped for the treatment. In the first session, initially the anamnesis was conducted, through an interview and evaluation of the pulse by TCM. Patient had his follow-up form, in which all details were noted. After the anamnesis, in the first session, specific points for pain relief were punctured.

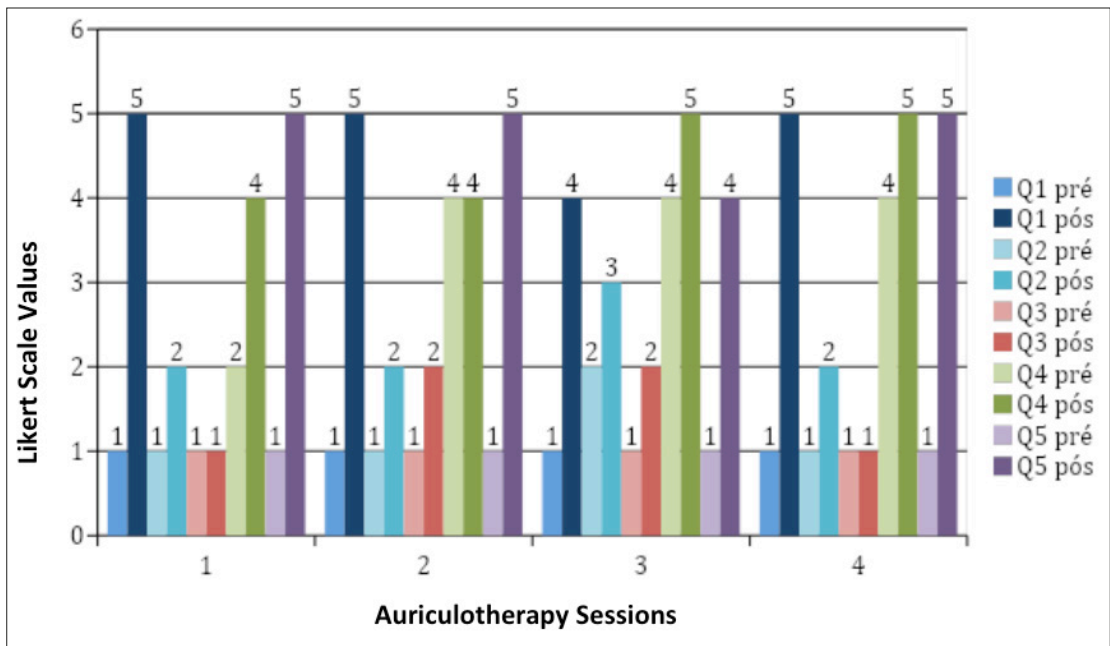
For all subsequent sessions, the procedures were described below: the patient arrived at the treatment site and spoke with the therapist for the week's feedback. It is understood, for the reproducibility of the study, that each patient, according to TCM, has their own assessment and individuality, and the sessions

QUESTIONS	very strong - 1	Strong - 2	Intermediary - 3	Weak - 4	No pain - 5
Q1 How do you feel about body pain right now?					
Q2 How did you feel about body pain over the past week?					
Q3 After your daily activities, what was your perception of pain during the week?					
Q4 At what level is the pain maintained while you have the needles in your ear?					
Q5 From the beginning of the session until the present moment, rate your pain again.					

Chart 1: Questionnaire about pain

Session 1	Needling: Shen Men, Analgesia, Muscle Relaxation, SNV, Neurasthenia, Liver, Spleen, Kidney, Zero Point, Sciatica. Moxibustion. Golden Sphere: Kidney. Silver spheres: Analgesia, Muscle Relaxation, Neurasthenia.
Session 2	Needling: Shen Men, Analgesia, SNV, Neurasthenia, Liver, Kidney, Zero Point, Apex, Subcortex, Hip Joint. Moxibustion. Seeds: Shen Men, Analgesia, SNV, Neurasthenia.
Session 3	Needling: Shen Men, Analgesia, Muscle Relaxation, SNV, Neurasthenia, Gallbladder, Thalamus, Lumbar Area, Ankle. Moxibustion. Radionic Crystals: Shen Men, Analgesia, Muscle Relaxation, SNV, Lumbar Area.
Session 4	Needling: Shen Men, Analgesia, Muscle Relaxation, SNV, Neurasthenia, Zero Point, Thalamus, Lumbar Area, Sciatic. Moxibustion. Seeds: Shen Men, Analgesia, Muscle Relaxation, SNV, Neurasthenia, Zero Point.

Table 2: Procedures of the points used per session



Graph 1: Answers per question before and after each session of auriculotherapy

must be organized based on these, being a good anamnesis and planning essential for the success of the treatment. The sessions began with checking the pulse and a brief conversation, and consisted of auricular needling at specific points for each session, moxibustion applications, ending with the application of seeds, spheres or radionic crystals at some points, in the ear opposite the needling one. The selection of points for each session is shown in Table 2 below.

All four sessions also included the application of the questionnaire. This was applied at the beginning and again at the end of each session. While the purpose of questions 1, 4 and 5 was to bring the sensations before and after the session, questions 2 and 3 were to verify whether the application of the needles could influence past sensations. All responses, as well as impressions of the day, were recorded in the patient's chart. According to the results obtained after each session and the initial assessment of the treatment day, specific procedures for the next session were organized. The results of the questionnaire from the 4 sessions were tabulated at the end of the proposed treatment and the graph was drawn up according to the Likert scale score.

RESULTS AND DISCUSSION

From the procedures applied and data collected in each session, graph 1 below was prepared, considering that the subjective sensations of the subject were quantified, based on their responses.

From the objective of the study to verify the influence of four sessions of auriculotherapy in an amateur surfer with generalized pain, analyzing the results shown in the graph, it can be stated that the patient reported improvement in the acute pain, during the session. However, the results did not demonstrate complete improvement of the chronic situation.

When we analyze question by question, the results obtained can be more enlightening. Regarding the feeling of pain in the body at the time of the question (Q1), in the 4 sessions the patient started with very strong pain and ended with weak pain (session 3) and no pain (sessions 1, 2 and 4), demonstrating the effectiveness auricular treatment acutely. On the other hand, when questioned about the sensation of pain during the previous week (Q2), at the beginning of the sessions, the patient reported remembering very strong or strong pain and at the end of the sessions strong / intermediate, which showed that the application of auriculotherapy did not change much the perception of pain previously suffered. When asked about pain after daily activities (Q3), in the week before treatment, the patient reported very strong pain at the beginning of the sessions and very strong or strong at the end of them, demonstrating once again that the application of auriculotherapy does not change the previous sensation of pain, which could be considered results expected by the authors. However, these results, especially from Q3, showed that the chronicity of the pain still persisted, and even though it improved after the sessions, it returned as the days went by.

When asked about the pain during the auriculotherapy session (Q4), the patient reported strong pain in the first session and then in the next three, weak pain, while at the end of the first two sessions he reported strong pain, but in the third and fourth session claimed to be pain free. This question shows us that, despite the discomfort of the pain not having been completely resolved, its intensity decreased over the course of the month of treatment, as well as in three of the four sessions the patient left better than he arrived and in two of the four sessions the same came out completely pain free.

The last question (Q5) asked for the

patient's opinion on the level of pain, directly relating to the results of Q4. In all sessions, the patient reported starting with very strong pain and ending with mild pain (session 3) or no pain (sessions 1, 2 and 4), which again corroborates the statement in Q1 and Q4 that the auriculotherapy itself was successful in removing the patient's painful sensation at the time of treatment.

We can say that the results obtained with the treatment for this patient's pain are in line with several more recent studies published in the area. Although some studies have not found robust scientific evidence (ZHENG; YUAN; LIU, 2014) and still claim that acupuncture could be a placebo treatment, many authors have conducted research, including randomized controlled trials, and found improvements in patients (KUREBAYASHI et al, 2017; SMITH et al., 2007; MILLER et al., 2011; GAVRONSKY et al., 2012; KATANA et al., 2018). At the same time, literature reviews (SANTOS et al., 2021; FINKLER; MARTIM, 2019; ZHANG et al., 2013) and meta-analyses (MANHELMER et al., 2005; VICKERS et al., 2012) have been published., demonstrating the efficacy of treatments with acupuncture and auriculotherapy for pain, especially chronic pain.

For example, Katana et al. (2018) conducted a study with 277 patients with shoulder pain. Authors divided the patients into CG (148) in which the treatment took place with physiotherapy for ten days and EG of 128 patients, who received, in addition to conventional treatment, Mulligan mobilization and acupuncture. Comparison of groups was performed before and after the intervention. The authors found that the EG took less time to reach positive responses on the pain scale, but also obtained better responses after the 10 days of treatment. At this point, it is interesting to note that several studies use acupuncture as an additional treatment to the conventional

one, with no clarity in measuring the results of acupuncture per se. Although this study has worked with systemic acupuncture, its results are related to those obtained in this research, especially when compared with Q4 and Q5, demonstrating a decrease in chronic pain levels, and total reduction during the session.

However, in order to verify the isolated action of acupuncture with greater scientific precision, some meta-analyses were carried out. Manhelmer et al. (2005) performed a meta-analysis of 22 studies on low back pain. Among them, 15 dealt with chronic pain; 7 demonstrated that traditional acupuncture had better results than simulated acupuncture and 8 that acupuncture had better results than when there was no intervention using this complementary therapy. Thus, the authors concluded that acupuncture relieves chronic pain in the lumbar region, but found no evidence that this treatment is better than other active methods, such as physical therapy. The same conclusions, that acupuncture relieves chronic pain, were published by the authors Vickers et al. (2012). In this meta-analysis, 29 high-quality randomized trials, involving 17,922 patients, found that traditional acupuncture had better results than sham. However, the study brings two important reflections: that simulated acupuncture also presents positive results to reduce pain (compared to the CG that did not have needling) and that when comparing traditional and simulated acupuncture, in relation to patients in the CG, no it is possible to carry out double-blind studies, not ruling out a placebo effect in both cases.

In the case of specific studies with auriculotherapy, Jimenez et al. (2014) evaluated 11 healthy male subjects, their own controls, who received 1.5mm semi-permanent needles at the Shen Men and SNV points. Each subject was submitted to a single session that lasted 15 minutes, and it was verified that this single

stimulation was capable of causing alterations in the sympathetic autonomous nervous system. These results corroborate those found in Q5, showing that a single session may be enough to cause physiological changes in the body, referred by the patients.

The results of this research, found in Q1, Q4 and Q5, are also related to the Araújo research; Zampar and Pinto (2006) and Kurebayashi et al. (2017). The first article studied 12 individuals, with a mean age of 41 years, with painful symptoms for more than 6 months. These patients underwent 10 sessions of auriculotherapy, twice a week, and after each one they were reassessed using the visual analogue pain scale. The final assessment showed a very significant reduction in pain intensity, frequency of symptoms and pain characteristics. It can be said that the patient in this study also reported a reduction in pain intensity, even though he was submitted to only 4 weekly sessions.

Kurebayashi et al. (2017) analyzed 133 individuals, divided into 4 groups: control (no intervention), seed, semi-permanent needles and adhesive tape (placebo), also using a visual analog pain scale. This study carried out a single protocol (APPA – Auricular Protocol for Pain and Anxiety) with the points: Shen Men, tranquilizer, thalamus, sympathetic and zero point. After 10 sessions, the needle group showed a 36% reduction in pain and the seed group, 24%. Although the needle group has shown greater pain reduction, the authors emphasize the greater ease of use of the seeds. Compared to our protocol, similar points are used, although in our study the individuality of the patient at each session was considered for the application of needles.

However, it is important to emphasize that TCM considers acupuncture treatment based on the passage of “Qi” energy in the body. Thus, it would be reasonable to state that patients submitted to it will be able to describe

benefits that are not easily measurable objectively. For example, in this study, the patient described “feeling tingling” several times while the needles remained in his ear, as well as “waves of heat in the body” and “a feeling of relaxation” at the end of the session.

CONCLUSION

Based on the results collected, in order to verify the influence of four auriculotherapy sessions on an amateur surfer with generalized pain, it can be concluded that auriculotherapy was effective in removing the patient’s painful sensation during the sessions. However, even with an improvement over the sessions, the chronic pain sensation was not completely removed.

Authors consider that this fact is due to the reduced treatment time, since the consulted studies show that, in cases of chronic pain, a greater number of sessions may be necessary for the solution of the problem and total improvement of the patient. At the same time, it must be remembered that traditional Chinese acupuncture, of which auriculotherapy is a part, is based on the passage of “Qi” energy through the meridians, and that this is not always measurable by means of traditional scientific methods. Thus, the authors suggest carrying out other studies, with a greater number of treatment sessions, as well as with larger samples, in order to verify the conclusions obtained in this research.

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