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D. Asis[1], A. Yoshizumi[2], F. Luz[3]

Auricular Chromotherapy: a novel technique in the treatment of psychological trauma

Ohr-Chromotherapie: Eine neue Technik in der Therapie psychologischer Traumata

Abstract

Auricular Chromotherapy has been showing promising results in the treatment of psychological trauma. With its relatively easy and quick technical application and the good results produced, this procedure may be an indispensable tool for physicians. However, its mechanism of action is not yet completely understood. The technique was created by Dr. Daniel Asis and Dr. Frederico Zarragoicoechea (Argentina), with contribution of Dr. Jorge Boucinhas (Brazil) and Dr. Rafäel Nogier (France) and includes the arousal and vanishing of traumatic images and emotions similar to the 'Eye Movement Desensitization and Reprocessing' (EMDR) procedure [1]. This work mentions: (i) the steps followed before the first application in 30 patients in Santa Fé (Argentina) where the technique was created [2]; (ii) the results of 50 cases (41 women, 9 men, aged 20 to 60) seen in São Paulo (Brazil) with a 92 % success rate; (iii) some possible lines of research for the future.

Keywords

Auriculotherapy, Auricular Chromotherapy, EMDR, PTSD

Zusammenfassung

Ohr-Chromotherapie zeigt in der Behandlung psychologischer Traumata vielversprechende Ergebnisse. Mit ihrem relativ einfachen und schnell erlernbaren Verfahren sowie ihren guten Ergebnissen könnte sie zu einem unverzichtbaren ärztlichen Instrument werden. Allerdings ist der Wirkmechanismus noch nicht komplett entschlüsselt. Diese Technik wurde von Dr. Daniel Asis und Dr. Frederico Zarragoicoechea (Argentinien), mit Unterstützung von Dr. Jorge Boucinhas (Brasilien) und Dr. Rafäel Nogier (Frankreich), entwickelt. Sie fußt auf der Erregung und darauf folgenden Auslöschung von traumatischen Bildern und Emotionen, ähnlich dem „Eye Movement Desensitization and Reprocessing" (EMDR). Dieser Artikel enthält (i) die Entwicklungsschritte dieser Technik vor ihrer ersten Anwendung bei 30 Patienten in Santa Fé (Argentinien) [2], (ii) das Ergebnis der Therapie von 50 Patienten (41 Frauen, 9 Männer, Alter von 20 bis 60 Jahren) in São Paulo (Brasilien) mit einer 92 %igen Erfolgsrate; (iii) einige Überlegungen zu weiterer Forschung.

Schlüsselwörter

Ohr-Akupunktur, Ohr-Chromotherapie, EMDR, PTSD

Introduction

In Post-Traumatic Stress Disorder (PTSD) [3], individuals develop a group of symptoms in the aftermath of a severe emotionally traumatic event, especially re-experience (e.g. flashbacks, which can occur spontaneously or in response to reminders of the traumatic event), avoidance (e.g. avoiding situations that remind the individual of the traumatic event) and hyperarousal (e.g. exaggerated startle response). It has been hypothesized that PTSD is characterized by exaggerated amygdale responsivity, abnormal activation and reduced hippocampus volume, hyporesponsivity of the rostral anterior cingulated cortex and initial evidence suggests that the dorsal anterior cingulated cortex may be hyperactive [4]. One important fact is that adverse events are extremely well remembered. Memory enhancement is evidently beneficial for survival, but it may become maladaptive and culminate in mental disease such a PTSD [5]. Researchers have found that although the memory recovered is not necessarily true in details, it is the trigger of the subsequent symptoms [6].

In Eye Movement Desensitization and Reprocessing (EMDR) therapy [7], patients are instructed to follow the therapist´s finger with their eyes, moving them left and right while activating a disturbing memory, thus evoking emotions, body sensations and thoughts associated with it. This bilateral stimulation also may be done by tapping on the patient´s knees and hands, or using alternating sounds [8]. Recent studies have reported that 84 % to 100 % of single trauma victims no longer retain their posttraumatic stress disorder diagnosis after the equivalent of three 90-minute sessions [9].

The formulation of Auricular Chromotherapy in the treatment of psychological trauma technique is a combination of at least three different areas of knowledge: Psychological trauma, Auriculotherapy and Chromotherapy.

The steps of this procedure began after learning EMDR in 1997 followed by several years practice in Auriculotherapy. Applying these theories, it was seen that palpation of both lobes (the areas related to the Central Nervous System – CNS) in people with emotional trauma is painful, being more painful in the left ear when the incident was more than 6–8 months ago. After the session, when the trauma was processed, the intensity of pain in these areas decreased.

Chromotherapy is the treatment of several different pathologies using the interaction of specific electromagnetic wavelengths with biological systems. Light in the form of laser has been used in wide ranging medical applications. Furthermore, important properties of different radiant frequencies on the skin have been observed [10, 11]. Similarly, the manipulation of light using yellow filters has shown promising results in permanently improving magnocellular function of children´s eyes. [12].

✉ Fabiola Luz, PhD. fabiluz@terra.com.br
Psychiatrist, Acupuncturist (CMAESP) São Paulo, Brazil. Phone: +55 11 30640241

1 Anaesthetist, Pain Management. danielasis@gigared.com. Santa Fe, Argentina. 54 342 4592894
2 General doctor, Acupuncturist (CMAESP) massaoy@terra.com.br São Paulo, Brazil. 55 11 982076000
3 Psychiatrist, Acupuncturist (CMAESP) fabiluz@terra.com.br São Paulo, Brazil. Phone: 55 11 30640241

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At first, the effect of laser and yellow pen applied to hippocampus, amygdala [13], and 'psychological scars' areas (fig.1) [14] was studied in relation to the treatment of emotional trauma and EMDR. We asked the patient to invoke and retain the image of the trauma, while the most sensitive points detected by palpation (see below) were marked with a yellow fiber pen. The response was that the image disappeared completely after one minute and at the same time the unpleasant emotions connected to the image also decreased.

The first sample population was gathered in Santa Fé (Argentina) by Dr. Asis, where survivors of a great flood appeared with varying symptoms (e.g. chronic pain, anguish and sadness) many years after the disaster. Of more than 30 patients treated, all experienced that after one minute of therapy, the traumatic image disappeared completely while simultaneously the unpleasant emotions and emotional pain decreased significantly. Furthermore, a follow up survey a year later showed that 80 % of patients treated were unable to reproduce the image of trauma and the associated emotional pain.
Afterwards, with Dr. Frederico Zarragoicoechea, the following protocol was created:

1. *Touch both lobes alternatively, first the edges and then the antitragus zone, appling gentle pressure using the thumbs and index fingers.*
2. *Continue the palpation and ask the patient which ear is more sensitive to pain. Generally if the trauma is older than 6 months, the left ear is more painful (the opposite is true for left-handed people).*
3. *Stop palpation and ask patient to close their eyes and try to remember the most terrible image of the trauma for at least one minute.*
4. *After that, the patient is asked to tell which emotion accompanies the image (e.g. anxiety, sadness) and describe the intensity of this emotional perturbation on a scale of 0 to 10, which is called the SUDS Scale (Subjective Units Stress).*
5. *The patient then tells which negative words or thoughts accompany the image, for example "I will never overcome his/her death" (Negative Cognition).*
6. *The patient is asked which body sensation is linked to the emotion (e.g. oppression in the chest).*
7. *The hippocampus, amygdale, scars areas of the most sensitive lobe (decteted earlier) are then probed using a pressure probe for locating ear points set at 400 grams (e.g. Feeler pression – Sedatelec) or electronic differential detector to detect which areas are sensitive. To date an area or combination of areas more frequently reported as sensitive has not be found.*
8. *Next, these point(s) are colored with a yellow pen (2–3 points) and the patient is asked to maintain the traumatic image in their mind. Facial expressions, respiration and gestures are observed.*
9. *After 2 minutes the patient is asked to describe the image. Generally, the image will disappear.*
10. *Measure once again emotional perturbation using the SUDS scale, which should give a very low score (0–2).*
11. *The patient is then asked which word(s) or phrase(s) accompany the newly obscured image ("I can overcome his/her death", for example). Observe if any disturbing body sensation remains.*

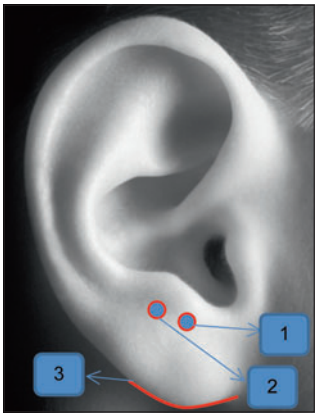

Fig. 1: Psychic areas in lobe:
1. Amygdala,
2. Hippocampus,
3. psychological

The second samples were collected in São Paulo (Brazil). Dr. Yoshizumi replicated the experiment in 50 patients: 41 women, 9 men, aged 20 to 60.

Materials and methods

All 50 patients were seen and filmed, using a PC camera, in Dr. Yoshizumi's office. The patients were seated in a chair in front of the camera. One pressure probe was used to probe for sensitive ear points, which were then marked with a yellow fiber pen. The sessions lasted about 30 minutes.

TABLE 1 Distribution of trauma reasons according to gender.

Cause of trauma	Men	Woman
Assault	2	3
Physical abuse – father	1	1
Son's death	2	
Mother's death	1	2
Husband's death		3
Brother's death		1
Father's death		5
Grandmother's death		1
Brother in prison		1
Car accident	1	1
Abortion		6
Parents fighting		3
Physical abuse – mother		1
Daughter's convulsion		1
Divorce		2
Husband's cheating		5
Sexual abuse	1	1
Father's disease		1
Poverty during childhood		1
Husband whipping her		1
Friend's psychotic outbreak		1
Saw Uncle in the coroner's office	1	

The social classes of the patients treated were indeterminate and all subjects had attended higher learning institutions. Only 40 % were Dr. Yoshizumi's previous patients.

Procedure

The 'Asis and Zarragoecoechea protocol' was applied.

Results

The distribution of trauma reasons/number according to gender is described in table 1.

Regarding the outcomes, 46 patients (92 %) reported that the traumatic image and emotional pain connected with it was erased completely or almost completely. 4 patients (8 %) reported no deleted image (1♀ traumatized by brother in prison, 1♀ suffering after the abortion, 1♀ traumatized by fighting with her husband, 1♂ traumatized by a car accident). All of the patients with a failure response were said to have felt a little bit better after treatment. In short, this is 92 % positive response.

Discussion

Despite these encouraging results we must take into account some points when replicating this experiment in the future, specifically that the small sampling size and the homogeneity of the cultural class could have distorted the positive results. Another point to consider is the high percentage of women present in the sampling; this could show greater female vulnerability in suffering trauma, which would be a special issue to explore at another time. A final thing to note is the necessity of follow ups to check the longevity and positive effects of the treatment.

Conclusion

This procedure shows the possibility of drawing a path from the external ear to the traumatic memory in the brain, and to apply on the lobe a kind of dressing, by color, on the emotional wound 'living' in the amygdala. These findings pave the way for other similar experiments connecting the mind diseases with the external ear, depending on the confirmation that future research can bring.

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