



The Auricular Acupressure as complementary therapy: a review of literature

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Review Article

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Abstract

The aim of this study was to review the role of auricular acupressure (AA) as Treatment modalities in Complementary Therapy. Electronic data bases searched for studies investigating AA as treatment modalities in complementary therapy from 1997 upto 2010. The methodological qualities of eligible studies were assessed by two independent reviewers the studies in (1) English language, (2) study design, (3) instruments used, (4) setting, population, (5) auricular stimulation method and (6) outcome. 15 studies were reviewed; only 6 studies were RCTs, most of the studies did not have a clear description of their method of allocation, concealment and randomization. Most of the studies reported significant effect 60% of AA as complementary therapy with various setting ranged from hospitalized patients 13.3%, out patients 33.3% and community based 33.3%, sample size were ranged from 10 subjects to 124 subjects, instruments used for manipulation 53% of studies used vaccria seeds, 20% magnetic pearl and 20% plastic ball. The available data from studies suggest that AA plays a significant role as a complementary treatment modality. Despite the limitations and insufficient information the findings add to the body of knowledge towards benefits of AA. Well designed studies with strong methodologies for various cultures highly recommended and approve the effectiveness of AA as treatment modality.

Keywords: Auricular Acupressure, Complementary Therapy, acupoint.

Introduction

Complementary therapies (CT) are considered to be one of the most important treatment methods that are being currently used as adjacent, complementary or alternative medicine for symptoms control and psychological support. It provides both emotional and physical support, but still falls outside the main stream of conventional medicine. Many CT modalities have a scientific basis such as body message, acupuncture and hypnosis.

Studies have showed that most conventional health care providers considered CT as good intervention because it is relatively risk free, does not cause much harm or any serious complications, easy to access and less invasive to the patient compared with conventional therapy^(1, 2), which acupressure is one CT that widely used in realm of treatment.

Acupressure is one non pharmacological therapy that manipulates on acupoints without needling. It had been used for treating variety of health conditions such nausea and vomiting⁽³⁾, low back pain⁽⁴⁾, post operative pain⁽⁵⁾, sleep quality^(6, 7), weight loss⁽⁸⁾, and dyspnea⁽⁶⁾.

Auricular acupressure (AA) is one kind of acupressure that stimulates ear acupoint to rebalance and harmonize body state. Many literature review have been done that either focused on acupressure of all body points or special disease condition and health related symptoms⁽⁹⁾⁽¹⁰⁾⁽¹¹⁾, the purpose of this review is to specifically examine the role of auricular acupressure in distressing health related symptoms and disease conditions, and to identify purposes of studies, studies design, instruments used, setting, population, auricular stimulation method, as well as outcomes that confirming its effectiveness.

Methodology

Relevant articles were acquired by employing the search term auricular acupressure, ear and auricular therapy in the following electronic data bases, CINHALL, SCOPUS, SCIENCE DIRECT, Pub Med and Google scholar. All articles were screened and excluded based on title and abstract information.



This review was limited to studies in the (1) English language, (2) full text (3) intervention stimulation of auricular points using any modality of acupressure (4) and covered the period 1997 to first mid 2010. All articles that met initial inclusion criteria were fully and individually evaluated. Of the 36 articles that met initial inclusion criteria 21 were excluded. one study was in Spain language, one Korean, and five studies in Chinese language, 9 studies of abstract without enough details and 2 studies were case report and observations were excluded from this review.

The outcome assessments of each included study were gathered, and categorized in term of study design, (blindness of patients, health care provider), symptoms and disease related conditions, instruments used, sample size, populations, setting, , outcomes, and significance (Table 1).

Results

Study design

In 15 studies reviewed, six studies were randomized control blinded trials (RCTs),^(3, 4, 12-15) and two quasi experimental studies^(16, 17) while the remaining seven studies were experimental control groups,^(8, 15, 18-23)

Symptoms, disease related conditions and biomedical actions

On one study addressed low back pain⁽⁴⁾, three evaluated post operative nausea and vomiting (PONV)^(3, 19), one evaluated menstrual symptom⁽¹²⁾, one on weight reduction⁽⁸⁾, two studies examined smoking cessation^(16, 17), and four studies on anxiety and pain^(13-15, 21), Three studies done, studying effect of AA on antioxidative status among high risk DM^(18, 22). One of this studies study absorption of flavanones in human body⁽²⁰⁾, one study evaluated the therapeutic effects of auricular plaster therapy for obstructive sleep apnea syndrome (OSAS) and the influence on sleeping structure⁽²³⁾.

Instruments used

The authors used different instruments to measure the outcomes of each study. These instruments varied from subjective to objective, and self report to interview. Anxiety and pain visual analog scale was the most used instrument to asses level of anxiety, pain and satisfaction with treatment^(13, 14, 21). Some used one or more instruments to assess the impact of AA on related symptoms, disease conditions or biomedical effect, in study done by⁽²³⁾, polysomnography, electroencephalogram, electromyogram, electrooculogram electrocardiogram Arterial SaO2 were used to evaluate the effect of auricular plaster therapy for sleep apnea obstructive syndrome, table (1).

Setting and sample size

The review showed various setting for collecting sample such as hospitalized patients^(3, 15), outpatient clinics^(8, 13, 14, 21, 23), and community such as colleges or schools^(4, 12, 16, 17, 19). The number of subjects enrolled across all the studies ranged from 10 subjects⁽²⁰⁾, to 124 subjects⁽³⁾ after exclusion the number of drop outs.

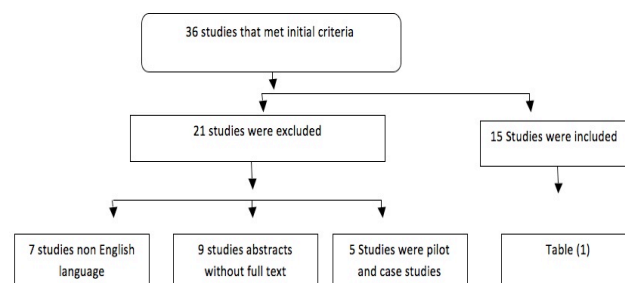


Figure1. A schema for illustrating the process of study selection

Population

Selection of subjects employed in these studies depends upon study objectives, which include both gender, young and elderly people, Some studies showed heterogeneous sample like⁽¹⁷⁾, whereas other had specific diagnosis such as pregnant women⁽¹⁹⁾ and women with primary dysmenorrhea⁽¹²⁾.

Interventions used

Different types of manipulator were used for AA acupoint stimulation. Eight of included studies used vaccaria seeds^(3, 12, 15-18, 22, 23) to stimulate and press auricular points. Three studies used magnetic pearls^(4, 8, 19), another three were used plastic balls^(13, 14, 21), whilst the remaining study did not provide any details of instrument used to press the ear points. Total duration and frequency of treatment number varied in these studies, ranging from 1 day⁽³⁾ to 70 days⁽¹⁷⁾ with frequent pressure rate from 3 to 5 times daily. There more three studies that fixed the ear acupressure instrument till individual delivered the subject to hospitals^(13, 14, 21).

Discussion:

In this review we have undertaken review of AA as treatment modalities to improve health related symptoms and disease conditions, as it has received some attention to verify and approve its efficacy. Scores for Symptoms, disease related conditions and biomedical actions improved substantially through using AA. There were no any significant differences between experiment and control groups. With regard to improving these symptoms were minimal.

The most unconvincing finding that only few studies of AA were extracted from available research sources. However, the absolute number of these studies still small. Despite



the paucity of these trails, there exists data that supports the use of AA of treatment of a number of conditions. AA appeared to have a positive effect on reducing symptoms severity such as PONV and anxiety level. Studies instruments varied greatly which most of it used of highly subjective instrument to assess these symptoms minimize which the evidence of related studies. Therefore, there is insufficient bulk of information and evidence upon which to give conclusion and recommendations regarding it.

In term of instruments used, vaccaria seed were most frequently used to apply pressure on auricular points, although magnetic pellet were used in some studies as well. Inconsistent, and wide gap of total treatment duration as well as lack of consensus for setting, make comparisons of these studies difficult. The information collected from this review of literature revealed that the need of more rigorous studies to consider existing results of AA as complementary therapy.

The methodological qualities of reviewed trials in this study were varied. Selected acupressure point, the technique of acupressure, duration of treatment, follow up length, frequency and sampling method were different in each study. However most of the studies did not state clearly the method of randomization, as well as blinding.

An important issue rose from this review concern cultural diversity regarding complementary medicine by understanding people's beliefs, religion, and ways of life. Most of the trails were conducted in china. It is important to keep in mind, that future work and research effort is needed to establish strong reliable and valid results that prove the effectiveness of AA all around the world.

Conclusion

The effectiveness of AA comes from high quality trials, some trials revealed the evidence of it for anxiety level, pain and menstrual symptoms. Obtained data suggest that AA help reduce these symptoms. However final conclusion still limited due to small numbers of clinical trials. Elements against AA as complementary as alternative medicine were shown to be lack of scientific evidence on certain therapies or the reports that explain its effectiveness were not scientifically well organized, specific guidelines for the control of AA as alternative medicine and issues about its safe use.

The results indicate that AA as complementary and alternative medicine has numerous benefits which include, low cost, great acceptance, non Invasive techniques in a lot of therapies, affordable and easy accessibility with easy to reach the services and its effectiveness in many diseases but with experts and certified therapists.

Available information suggests that there is an effective rule of AA of treatment of health related conditions.

Despite limited numbers of these RCT trials. Clinical based practice is needed by using high quality, well organized RCT trails, which must include full defining characteristic of targeted subjects/ population such as ethnicity, age group and clinical condition. Controlling of confounding factors or exposures must be considered in future research as well as recording of any side effects.

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AUTHORS' CONTRIBUTIONS

Authors contributed equally to all aspects of the study.

PEER REVIEW

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CONFLICTS OF INTEREST

The authors declare that they have no competing interests