

### "Efficacy and Safety of Auricular Therapy for Depression"

#### Abstract:

In this case study, researchers found applications for auricular therapy for treating depression. This is because of the lack of comprehensive information on auricular therapies (AT) effects and safety on depression. Ten databases were used for searches. They used randomized controlled and quasi-randomized controlled trials related to depression and AT. The studies used ear buried seeds (EBS) and transcutaneous vagus nerve stimulation (tVNS). This study found that compared to control groups tVNS produced a significant difference on the Hamilton Depression Scale, Beck's Depression Inventory (BDI), Self Rate Depression Scale (SDS), and Self-Rate Anxiety Scale (SAS). Although there was no significant difference in the Hamilton Anxiety Scale (HAM-A). tVNS showed significant differences on the HAM-D scale and had a major effect on reducing the side effects. EBS combined with other treatments showed improvement in the depression scales (HAM-D, SDS, SAS). In conclusion, tVAS and EBS could alleviate the symptoms of depression.

#### Introduction:

Depression is a common mental disorder that affects approximately 400 million people worldwide. Women are usually more affected than men. Depression symptoms include sadness, loss of

interest or pleasure, feelings of guilt, poor concentration, or low self-worth.<sup>1</sup> Other symptom are somatic (relating to the body) these include disturbances in your sleep, appetite, feeling tired, irregular digestion, or chest tightness.<sup>2</sup> There are many options for treating depression. In this study in particular they define auricular therapy (AT) as "a health care modality whereby the external surface of the ear, or auricle, is stimulated to alleviate pathological conditions in other parts of the body."<sup>3</sup> Transcutaneous vagus nerve stimulation (tVNS) is used predominantly in the study. In therapy, they stimulate this location and disrupt the vagus nerve. Use of AT has been used to treat depression but has not been investigated sufficiently. In this study, the safety and efficacy of AT in treating depression are reviewed.

#### Case Presentation:

In this review, researchers used randomized controlled studies and quasi-randomized control trials from AT. There were no restrictions on gender, race, or region. Trials were excluded if they related to acupoint therapies other than AT. Keywords relating to auricular

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World Health Organization. Health Topics: Depression. Online document at: [www.who.int/topics/depression/en/](http://www.who.int/topics/depression/en/) Accessed September 25, 2016.

<sup>2</sup> Manning JS, Jackson WC. Treating depression in primary care: Initial and follow-up treatment strategies. *J Clin Psychiatry*. 2015;76(2):e5. PubMed.

<sup>3</sup> Oleson T. *Auriculotherapy Manual: Chinese and Western Systems of Ear Acupuncture*, 3th ed. Edinburgh: Churchill Livingstone; 2008:1.

therapy and depression were searched. A Rev Man 5.2 software analyzed the data. If the studies met the standards (sufficient amount of randomized trials, etc.) then they were analyzed statistically. They used the Cochrane Handbook for Systematic Reviews of Interventions to do this.<sup>4</sup>

### **Management and Outcome:**

Twelve randomized trials were chosen to review. There were a total of 759 patients who had depression. The study had many different outcomes because of the diverse rating systems used by studies. The twelve trials contributed data to the meta-analysis.

### **Discussion:**

This review included a total of 759 patients. These patients were treated with therapies EBS and tVNS. Each case study was reviewed and given its own outcome. This is because the trial was so heterogeneous. Each trial and patient needs to be treated differently for their depression.

This study found that compared to control groups tVNS produced a significant difference on the Hamilton Depression Scale, Beck's Depression Inventory (BDI), Self Rate Depression Scale (SDS), and Self-Rate Anxiety Scale (SAS). Although there was no significant difference in the Hamilton Anxiety Scale (HAM-A). tVNS showed significant

differences on the HAM-D scale and had a major effect on reducing the side effects. EBS combined with other treatments showed improvement in the depression scales (HAM-D, SDS, SAS). In conclusion, tVAS and EBS could alleviate the symptoms of depression.

The study suggests that future trials report auricular therapy trials using the STRICTA guidelines. They also suggest separating observation of somatic and psychological symptoms.

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<sup>4</sup> Higgins JPT, Green S, eds. *Cochrane Handbook for Systematic Reviews of Interventions*. New York: Wiley; 2008. Crossref.