Acupuncture Alleviates Postpartum Depression

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Acupuncture relieves postpartum depression. Researchers conclude that acupuncture combined with psychological intervention has a similar total efficacy rate for the treatment of postpartum depression as the drug fluoxetine hydrochloride (Prozac®). Acupuncture plus psychological intervention had a 90.7% total effective rate and fluoxetine hydrochloride had a 90.5% total effective rate. The researchers note that acupuncture did not cause any adverse reactions but fluoxetine hydrochloride caused nausea, dizziness, and loss of appetite.

Postpartum depression's biomedical signs and symptoms occur after childbirth and include: mood swings, unhappiness, insomnia, hypersomnia, psychomotor retardation, suicidal tendencies, cognitive dysfunction, low libido, exhaustion, anger, irritability, lack of appetite, not bonding with the baby, low self-esteem. In Traditional Chinese Medicine (TCM), postpartum depression belongs to depression syndrome and may include: depression, low energy, stifling chest sensation, sighing, loss of appetite, insomnia or dream disturbed sleep, frustration, crying, anger, worry, sadness, melancholy.

Subjects in the acupuncture plus psychological intervention group received acupuncture once per day at a rate of five sessions per week for a total of six weeks. The acupuncture needles were 0.35 x 25 mm and were retained for 30 minutes during each acupuncture session. The acupuncture points used in the study were: Baihui (GV20), Sishencong (EX-HN1), Neiguan (PC6), Taichong (LR3), Sanyinjiao (SP6), Zusanli (ST36). Moderate needling techniques were applied to achieve deqi sensations and patient comfortability.

The researchers note, "By regulating the exciting and inhibiting process of the cerebral cortex via the nervous system and immune system, acupuncture is able to balance various neurotransmitters among the intracephalic neuronal synapses, reduce the brain's reaction to stress, relax the stressful spirit, regulate and treat the physical symptoms and relieve the depressive and anxious state." They mapped out the acupuncture point selection choices based on TCM theory and note, "Those acupoints in combination are used to correct deficiency and expel blood stasis for both causative factors and symptoms, in order to realize the effects to soothe the liver, regulate qi, wake up the brain and tranquilize the heart-mind."

GV20 and Sishencong were chosen because, “The head is the gathering site of all yang and the house of the mind.” LI4 and LR3 is the classic Siguan point combination, often referred to as the four gates in English. The researchers note that both are yuan-primary points and together they regulate qi, blood, yin and yang. They also “soothe the liver and regulate qi, open the orifice and calm the mind.” PC6 was cited as a luo-connecting point that benefits heart qi and calms the mind. SP6 was chosen for its ability to access the three yin meridians of the foot and for its ability to regulate qi and blood. ST36 was chosen for its ability to benefit stomach qi, source qi and blood production.

The researchers contrasted integrative complementary medicine with a conventional drug therapy approach to care. Both approaches achieved similar positive patient outcomes. However, the acupuncture plus psychological intervention regime caused no adverse effects whereas the medication regime of care caused several adverse effects.

In related research, a meta-analysis of 87 papers published between 2002 and 2012 finds acupuncture effective in the treatment of labor pain and for the treatment of postpartum complications. Acupuncture was also found effective in inducing uterine contractions and shortening the birthing process. The report calls for continued research on acupuncture, herbal medicine and other forms of complementary medicine for the treatment of human reproductive issues.

An important study on acupuncture for the treatment of depression was recently conducted by University of York researchers. In a randomized controlled trial, the researchers note that acupuncture causes a “significant reduction in symptoms of depression in the short to medium term, and are not associated with serious adverse events.” The researchers conclude that acupuncture is both safe and effective as an adjunct therapy to primary care for patients with depression.

A related laboratory investigation demonstrates that acupuncture benefits brain biochemistry and regulates gene expression related to depression. The researchers conclude that electroacupuncture treats “depression by modifying or regulating the expression of various genes.” Electroacupuncture was applied to acupuncture points Baihui (DU20) and Yintang on depression model laboratory rats.

The research shows that depression causes “abnormal gene expression” in “a large number of genes” and this affects “multiple brain functions” and nerve cells. Depression causes pathological biochemical changes and these changes cause more depression. The researchers note, this “vicious circle makes it difficult to cure conditions such as depression.” They add “that

electroacupuncture at Baihui and Yintang modulates depression by regulating the expression of particular genes."

A total of 21 genes imbalanced by depression were normalized by the application of electroacupuncture. The researchers note that all 21 genes "were closer to a normal level" after the application of electroacupuncture. Clinically, electroacupuncture restored normal behaviors in the laboratory rats including actions in sucrose consumption, the swim test and the open field test.

Genes were examined in the hippocampus. The genes Tmp32, Vgf:Tmp32 and Vgf are downregulated during depression and are normalized through upregulation with electroacupuncture. The genes regulate neuroactive steroid hormones important to the nervous system. They regulate the function of the synapses, inflammation, myelination, the central nervous system and the HPA axis. The gene Trim32 "was downregulated in depression and returned to normal after electroacupuncture."

The same was found for Igf2, a gene that promotes nerve cell proliferation and increased neurotransmitter levels between synapses. In the same way, Loc500373 and other genes were normalized. Loc500373 is involved in ATP formation and energy metabolism. Electroacupuncture was shown to "promote ATP formation" and consequently improved cell function. Electroacupuncture normalized Rtn4 gene levels and restored normal brain protein biosynthesis. Electroacupuncture normalized levels of Hifla, an important gene that regulates cellular apoptosis.

Electroacupuncture successfully downregulated genes involved in oxidative stress and inflammation that had been pathologically upregulated by depression. The investigators note that normalization caused by electroacupuncture benefits the brain by "maintaining tissue structure" and "restoring cell function." The researchers note this provides "evidence to the observed clinical effect of electroacupuncture on depression." The study shows that acupuncture normalizes gene levels involved in transcription/translation, neurotransmission, signal transduction, immune system inflammatory responses, metabolism, enzymatic reactions and protein biosynthesis.

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