

Use of Far-infrared technology for Depression

The effect on serotonin and MDA levels in depressed patients with insomnia when far-infrared rays are applied to acupoints.

Chang Y, Liu YP, Liu CF.

Jenteh Junior College of Medicine and Nursing Management, Miaoli, Taiwan.

Abstract

Little is known about the effect of far-infrared rays (FIR) on serotonin and malondialdehyde levels in depressed patients with insomnia. The purpose of this study is to assess the effect of far-infrared rays on depressed people with insomnia. A randomized design was used to determine this effect. A total of 70 inpatients were recruited with the clinical diagnosis of depression with sleep disturbance. In the experimental group, FIR was applied to three chosen acupuncture points by a patch-like sticker for a period of 15 minutes twice a week. The three acupuncture points are Nei-Kuan (PC6), Shenmen (HT7) and Sanyinjiao (SP6). The total duration of experiment was four weeks. For both experimental and control groups, serum levels of serotonin (5HT) and malondialdehyde (MDA) were examined before and after the introduction of FIR. The experimental group revealed disparate changes over different dependent variables, in which serotonin increased but MDA decreased after the introduction of FIR. These observations indicate that the serotonin pathway is involved in the pathophysiological mechanism responsible for the damaging effects of MDA on depressed patients with insomnia.

Repeated thermal therapy diminishes appetite loss and subjective complaints in mildly depressed patients.

Masuda A, Nakazato M, Kihara T, Minagoe S, Tei C.

Psychosomatic Medicine, Respiratory and Stress Care center, Kagoshima University Hospital, Kagoshima City, Japan.

Abstract

OBJECTIVE: We observed that repeated thermal therapy improved appetite loss and general well-being in patients with chronic heart failure. The purpose of this study is to clarify the effects of repeated thermal therapy in mildly depressed patients with appetite loss and subjective complaints. **METHODS:** Twenty-eight mildly depressed inpatients with general fatigue, appetite loss, and somatic and mental complaints were randomly assigned to thermal therapy group (n = 14) or nonthermal therapy group (n = 14). Patients in the thermal therapy group were treated with 60 degrees C far-infrared ray dry sauna for 15 minutes and were then kept at bed rest with a blanket for 30 minutes once a day, 5 days a week for a total of 20 sessions in 4 weeks. **RESULTS:** Four weeks after

admission, somatic complaints, hunger, and relaxation scores significantly improved ($p < .001$, $p < .0001$, $p < .0001$, respectively) and mental complaints slightly improved ($p = .054$) in the thermal therapy group compared with the nonthermal therapy group. Furthermore, the plasma ghrelin concentrations and daily caloric intake in the thermal therapy group significantly increased compared with the nonthermal therapy group ($p < .05$). **CONCLUSIONS:** These findings suggest that repeated thermal therapy may be useful for mildly depressed patients with appetite loss and subjective complaints.