

Effect of Laser Acupoint Treatment on Blood Pressure and Body Weight-a Pilot Study

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OBJECTIVE: This study reports on the effects of laser acupuncture on blood pressure, body weight, and heart rate variability by stimulating acupuncture points and meridians on college students and faculty members.

METHODS: Forty-five students and faculty members from a chiropractic college were recruited in the study. All subjects signed a written informed consent before their participation in the study. This study was a randomized controlled pilot study with subjects divided into control and experimental groups. The control group received a sham low-level laser therapy treatment with no power output to the laser during their "treatment." The experimental group was treated with an activated laser. The acupuncture points used in this study were LI 4 and LI 11 for body weight and blood pressure. The treatment groups received 16 J of laser energy output for a total treatment time of 8 minutes (4 minutes for each of the 2 points).

RESULTS: After using the laser treatment for 90 days (at least 12 treatments per subject), both the systolic and diastolic blood pressures decreased significantly ($P < .01$). The mean systolic blood pressure was 129.6 ± 14.7 mm Hg before the treatment and was reduced to 122.5 ± 17.2 mm Hg ($P < .001$). The mean diastolic blood pressure was 85.6 ± 8.0 mm Hg before treatment and was reduced to 77.2 ± 8.7 mm Hg ($P < .001$). Subject's body weight was reduced in the active acupoint group, but the weight reduction did not reach a significant level. There were no significant changes in the heart rate variability.

CONCLUSION: It was concluded that low-level laser treatment of acupoint resulted in lower blood pressure by stimulating the LI 11 and LI 4. No significant difference was observed in both the body weight and heart rate variability after the laser acupoint treatment.

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