



Impact of Cold Laser on Lipid Profile In Abdominal Obese Women

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Abstract : Background: Regional body fat distribution has an important influence on metabolic and cardiovascular risk factors. High cholesterol serum levels associated with the risk of coronary heart disease. LLLT may suppress cholesterogenesis and thereby reduce cholesterol and triglyceride serum levels by altering gene expression and inducing cellular modifications. The purpose of this study was to find out the effect of low level laser therapy on lipid profile in women with abdominal obesity. **Subjects and methods:** Forty women with abdominal obesity, their age ranged from 30 to 40 years old and their BMI ranged from 30 to 34.9 kg/m², were divided randomly into two equal groups, Study group: received LLLT on the abdomen using (Lumislim Prolaser, manufactured by Daeyang Medical Co., LTD.) with 4 laser pads strapped around patient abdomen emitting 650 nm (red) laser light. Duration of treatment was 30 minutes, 2 times per week for 6 weeks (12 sessions) .Control group: received sham LLLT for same duration as study group. Lipid profile was measured before and after the study. **Results:** Statistical analysis revealed that LLLT has significant effect on triglycerides (decreased 13.26%), total cholesterol (decreased 7.28%), low density lipoprotein(decreased 6.79%), waist circumference (decreased 3.31%) compared to control group and non significant effect on high density lipoprotein in both groups. **Conclusion:** LLLT can be used to improve blood lipid profile as well as decrease of the waist circumference in women with abdominal obesity. **Keywords:** low level Laser- cholesterol- lipoproteins- triglycerides- abdominal obesity.

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