

Case Report

Effect of Laser Acupuncture and LLLT On Seminal Fluid Parameters in Infertility Patients

Ehsan Kamani^{1*}

¹Arak University of Medical Sciences, Arak, Iran

***Corresponding Author:** Ehsan Kamani, Arak University of Medical Sciences, Arak, Iran, Tel: +988633838268, Fax: +988633838268, kamaniehsan313@gmail.com.

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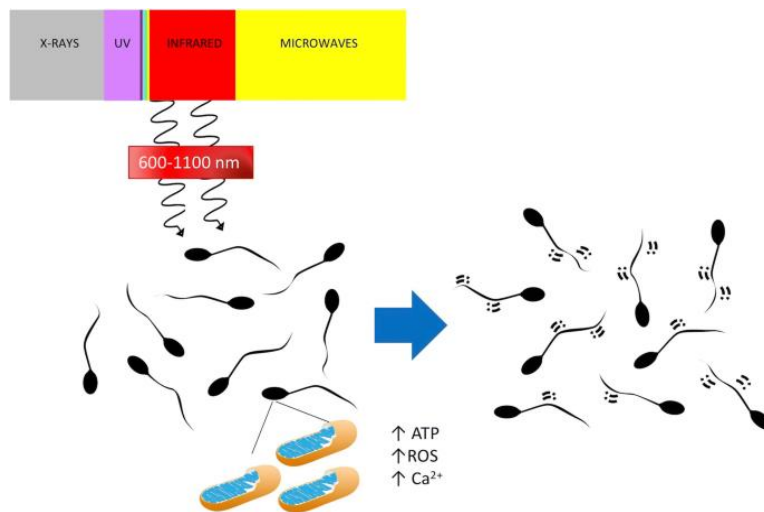
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From the point of view of the World Health Organization, sexually active couples without contraception who do not have children after one year are considered infertile. In Iran, based on studies, the overall prevalence of infertility has been reported between 8 and 25%. Based on the studies, infertility has an effect on the quality of life of the couple, including anxiety disorders, dysfunction in social, occupational, and even sexual aspects of the couple's life. Recently, studies have been conducted on the effect of acupuncture on infertility treatment, some of which have shown positive effects on sperm concentration and sperm motility. Laser acupuncture is a modern method of traditional acupuncture in which instead of using a metal needle, laser fiber is used to transfer energy to the desired points, which is less invasive compared to traditional acupuncture. Based on the studies conducted, infertility affects the quality of life of a couple, which include anxiety disorders, dysfunction in social and occupational functioning, and even the sexual aspects of a couple's life. The known causes of infertility in men can be congenital or acquired. It is an acquisition whose acquired causes include disorders and infections of the reproductive system, increased temperature of the scrotum (caused by varicocele), hormonal disorders, genetic disorders, and immunological factors. But a significant percentage remain without symptoms or without a known cause, which are subjected to various experimental treatments. Although various vitamin supplements are widely prescribed, no significant effect on semen parameters has been seen so far. Recently, studies have been conducted on the effect of acupuncture on infertility treatment, some of which have shown positive effects on sperm concentration and sperm

movement. Also, some studies have shown that acupuncture can increase the level of testosterone and to some extent LH. Laser acupuncture is a modern method of traditional acupuncture in which instead of using a metal needle, laser fiber is used to transmit light energy to several Specific points are used, which is less invasive compared to traditional acupuncture. In 2002, Zhang and colleagues in China studied the effect of acupuncture during two sessions on 22 men who had abnormal semen tests. Three months later, they noticed a significant increase in sperm movement and the ratio of normal sperm. In Germany, the effect of laser acupuncture was investigated on about 30 infertile men, and at the end it was announced that acupuncture significantly improved the overall movement of sperm. (Also, in 2015, a pilot study was conducted by Hu and his colleagues in Singapore to investigate the effect of acupuncture on 12 infertile men, during which it was found that acupuncture only increased the proportion of mature sperm and their function. Also, the research center Biology of Shahid Beheshti University of Medical Sciences found that low-power laser can increase sperm motility after freezing-thawing and possibly increase the fertility rate in cases of using frozen sperm activation of the mitochondrial respiratory chain and ATP production. This treatment can be especially useful to prevent the use of chemicals in the sperm culture medium, as well as to enhance sperm survival and motility, especially after thawing or in sperm samples that are highly immobile, be useful. In half of the cases, the infertility of husband and wife is due to male fertility disorder. The most important factors that because male infertility are urinary tract infections, immune system disorders, testicular and prostate pathology, as well as endocrine disorders. Low-level laser therapy (LLLT) is a very effective physical therapy method used in many medical fields, including obstetrics, gynecology, andrology, and urology. And it is recommended as an integral part of the complex treatment of infertility. A review of the literature showed that LLLT is useful in the treatment of male infertility. Laser can significantly improve the survival, motility and speed of sperm movement.



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