

Effect of Laser Therapy as an Integrative Medicine on Assisted Reproduction

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Recently women's participation in the workforce continues to rise and late marriage is advancing in Japan. So, mean age of IVF patients is getting older and recurrent IVF failures are increasing. Anti-aging therapy of oocytes is considered to be necessary to improve pregnancy rate of aged patients. Aging of oocytes includes aging of nucleus and aging of cytoplasm. Aging of nucleus is considered to be unavoidable. However we consider we can prevent aging of cytoplasm, especially of mitochondria using integrative medicine. Integrative medicine consists of assisted reproductive technology (ART) and complementary and alternative medicine (CAM). We prepare several integrative medicine programs consisted of supplement treatment, counseling (mental, nutritional and genetic), fitness, Yoga, aroma treatment, acupuncture and low level laser treatment (LLLT).

Today we report the efficacy of supplement treatment (L-carnitine and melatonin) and LLLT and integrative medicine programs for IVF failures.

After L-carnitine treatment blastocyst rate was significantly increased (37.0% vs 60.8%, $p < 0.01$) . After melatonin treatment good embryo rate (45.2% vs 63.0%, $p < 0.01$) , blastocyst rate (28.3% vs 54.4%, $p < 0.01$) and good blastocyst rate (29.4% vs 67.7%, $p < 0.05$) were significantly increased. After LLLT good embryo rate were significantly increased (64.0% vs 79.0%, $p < 0.01$) . In hormone supplemented frozen thawed ET cycles, pregnancy rate of day 3 embryos was significantly increased (4.0% vs 19.0%, $p < 0.05$) after LLLT. And after integrative medicine program, pregnancy rate was significantly increased (1.8% vs 16.3%, $p < 0.05$) .