

P126. Comparison of ICSI results in a group of patients with and without oral L-carnitine, acetyl-L-carnitine and nutrients supplementation

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Objective: The aim of our work was to evaluate the effect of the supplementation with metabolic compounds L-carnitine, acetyl-L-carnitine and specific nutrients on ICSI outcomes.

Methods: The study consisted of treating infertile woman with L-carnitine, acetyl-L-carnitine and nutrient during the two months preceding the ICSI cycle. The group of patients underwent hormonal treatment followed by follicular aspiration, intra-cytoplasmic spermatozoa injection and embryo transfer. For each couple, we calculated the rate of oocytes maturation, fertilization rate, cleavage rate, and top embryo rate and noted the presence or absence of pregnancy.

Patients: 56 infertile women, who consulted at ART Reproductive Center; all women were the partners of men who had failed to conceive after 1 year of unprotected regular sexual activity. Inclusion criteria were as follows: nonsmokers, nonalcoholic women and not using any medication, women in good health by means of their medical histories and clinical examination.

Intervention: It was a prospective study on 56 infertile couples followed over a period of one year (February 2016- February 2017).

Main outcome: Regarding the ICSI results, some parameters were significantly improved after oral supplementation of the test formulation. Significantly improved results included: the number of mature oocytes, the level of type I embryos, the blastocyst rate, and the type I blastocyst rate.

Results: The average age of the patients and the duration of infertility were respectively 35 ± 2.1 and 2.8 ± 1.3 years. The infertility origin was male in 70% and the type of infertility was primary in 84%. We obtained from the first cycle of ICSI (without carnitine) an average oocyte maturation rate of 69%, a fertilization rate of 55%, a segmentation rate of 58% and a good embryo rate of 40%.

Conclusion: In women under 35 years old and normal responder, significant improvements were noted in the number of mature oocytes, the type I embryos rate, the blastocyst rate and the type 1 blastocyst rate.

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