

The impact of infertile women's stress on the ICSI outcomes

Oumaima G, Trabelsi N, Ghodhbene E, Bouhleb F, Mustapha H, Ajina M

Reproductive Biology Department, Hospital University F. Hached, Sousse, Tunisia

ABSTRACT

Introduction: A growing importance is given to stressor in fight against infertility problems. In fact, we seek to assess the physiological stress impact and its role in the reproductive process. **Objective:** The main purpose of this work is to puzzle out the relationship between stress and the biological results of ICSI. **Materials and Methods:** It is a prospective comparative study conducted at the unit of reproductive medicine of Farhat Hached Hospital in Sousse, collecting 45 cases, where the stress level was assessed with the Beck questionnaire and the cortisol dosage on the day of oocyte retrieval and the day of embryo transfer. Patients were divided into two groups: The first group consisted of 35 patients not exposed to the stressor and having a Beck score less than 21. The second group consisted of 10 hyper-stressful patients with a Beck score greater than 36. **Results:** The two groups were comparable regarding infertility duration, BMI, endometrial thickness and estradiol level on ovulation release day. There is no statistically significant difference between the two groups regarding the average cortisol level at the oocyte retrieval ($p = 0.09$) and the day of embryo transfer ($p = 0, 2$). Moreover, we found that 60% of the patients in the second group had an oocyte number less than 3 while there were only 37.1% of the patients in the first group who had it ($p = 0.3$); 50% of patients in the second group did not have an embryo transfer when 22.9% of the first group did not have it ($p = 0.3$). Then, there was no statistically significant difference between the two groups concerning the average rates of maturation, fertilisation and embryonic segmentation. **Conclusion:** In this study, we found that there is no statistically significant difference regarding physiological stress effect on ICSI outcomes. This can be explained by the size of the sample used as it was small. More cases will be added to improve our study.