

P136. Physical activity of infertile women before, during and after in vitro fertilization treatment and its effect on pregnancy outcome

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Context

It is challenging to give objective recommendations on physical activity (PA) during and after IVF treatment to the patients. Some previous studies show that patients who are physically active during treatment have a higher probability of childbirth. Other studies, on the contrary, report negative impact of PA on the results of IVF. Previous studies have used questionnaires for assessing PA, which give only a rough estimate on women's real PA. The most accurate and objective measurement of PA would be to use accelerometry. So far, there is only one study published where they measured objectively PA among infertile women and they detected a favorable impact of PA on the results of IVF (Evenson et al. 2014).

Objective

We aimed to evaluate the changes in PA of infertile women before, during and after IVF treatment and the effect of objectively measured PA on pregnancy outcome in IVF.

Methods

Patients wore around their hip the biaxial ActiGraph accelerometer GT2X+ for assessing objectively their PA. Embryo transfer (ET) was done after controlled ovarian hyperstimulation on days 2 to 5. A serum pregnancy test were performed 14±2 days after ET and considered to be positive in β -HCG>10 mIU/mL. The ultrasound evaluation for defining clinical pregnancy was performed 4-5 weeks after oocyte retrieval in case of positive serum β -HCG.

Patients

This study was carried out among 107 infertile women in reproductive age, receiving fresh ET after IVF.

Interventions

Three measurements of PA of 2 weeks, were performed in the study: one to six months before ET; starting from the next day after ET; starting from the next day after a positive serum pregnancy test.

Main Outcome Measures

To compare PA levels measured in 3 time-points and evaluate its effect on IVF.

Results

Infertile women undergoing IVF significantly reduced their PA levels and increased sedentary time.

We detected a positive association between PA and ovarian stimulation outcome: physically more active women obtained higher number of oocytes and embryos in their treatment cycle.

However, no statistically significant association of different levels of PA with final IVF outcomes were detected.

Conclusion

PA seems to affect ovarian stimulation outcomes in IVF treatment, but does not seem to affect the

embryo implantation and early pregnancy establishment processes. Based on our study results, the patients receiving embryos in IVF program could continue their normal life-style without reducing PA levels.

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