

6th Annual Congress on  
**Gynecology and Women's Health**

November 21, 2022 | Webinar

Received date: 02-07-2022 | Accepted date: 09-07-2022 | Published date: 05-12-2022

## Is There any Impact of Women's Anxiety on ART Outcomes?

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**Statement of the Problem:** Childlessness is perceived by both partners as an emotionally hard experience. For the women the burden could be greater as she undergoes most of both investigations and treatments. The purpose of this study is to address the question whether anxiety could negatively impact ART outcomes and to point out the most stressful time point during an ART course.

**Methodology & Theoretical Orientation:** This was a prospective study including 79 infertile women undergoing in vitro fertilization at the Reproductive Medicine Unit of Farhat Hached Hospital (Tunisia). Participants were asked to answer the Beck anxiety inventory (BAI) on the day of oocyte retrieval. Accordingly, they were classified in one of the 3 groups:

**Group A:** Very low anxiety (n= 36; BAI<21),

**Group B:** Moderate anxiety (n= 24; 22≤BAI≤35) and

**Group C:** Severe anxiety (n=19; BAI≥ 36).

For each patient, two blood samples were collected to assess free cortisol level on the day of oocyte retrieval and on the day of embryo transfer.

**Findings:** In severely anxious patients, the implantation rate was the lowest in comparison with moderately anxious women (p= 0.03) and those having low levels of anxiety (p= 0.001) and was negatively correlated to BAI score (r= - 0.65; p= 0.001). Interestingly, both clinical pregnancy and live birth rates were similar among the three groups. Cortisol level was significantly higher on the day of embryo transfer than that measured on the day of oocyte pick-up (p<0.0001).

**Conclusion & Significance:** The day of embryo transfer is the most stressful time point and psychological counselling is crucial to enhance implantation rate. Hence implantation has occurred, no obvious impact of stress on pregnancy and live birth was seen.

### Recent publications

1. Agostini F, Monti F, Paterlini M, Andrei F, Palomba S, La Sala GB. Effect of the previous reproductive outcomes in subfertile women after in vitro fertilization (IVF) and/or intracytoplasmic sperm injection (ICSI) treatments on perinatal anxious and depressive symptomatology. *J Psychosom Obstet Gynaecol.* 2018;39(1):29–37.
2. Palomba S, Daolio J, Romeo S, Battaglia FA, Marci R, La Sala GB. Lifestyle and fertility: the influence of stress and quality of life on female fertility. *Reprod Biol Endocrinol RBE.*
3. 2018;16(1):113. 3. Massarotti C, Gentile G, Ferreccio C, Scaruffi P, Remorgida V, Anserini. Impact of infertility and infertility treatments on quality of life and levels of anxiety and depression in women undergoing in vitro fertilization *Gynecol Endocrinol.* 2019 Jun;35(6):485-489.

### Biography

Amira Sallem is an expert in the field of Andrology and Assisted Reproductive Technologies (ART) born in Tunisia. She obtained her degree in Medicine in 2015 in the Faculty of Medicine of Monastir (Tunisia) and her PhD in Reproductive Sciences in the University of Paris in 2019.