

Exploring the implications of pharmacologic management of anxiety or depression on outcomes of first fresh embryo transfers

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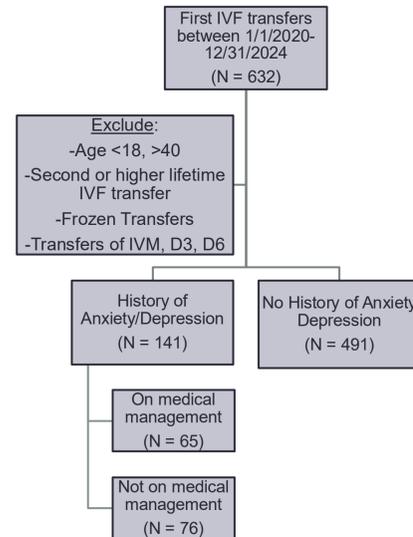
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PURPOSE & OBJECTIVES

Compare outcomes of first fresh embryo transfer cycles among patients with pre-existing anxiety and/or depression with or without pharmacologic management of this psychiatric diagnosis

MATERIAL & METHODS

- **Retrospective cohort** study was conducted between 1/1/2020 and 12/31/2024 in Weill Cornell, a university-based academic clinic
- A pre-existing diagnosis of anxiety and/or depression was determined based on self-reported questionnaires completed at their initial visit. **Pharmacological management** of anxiety/depression, such as with use of SSRIs, was identified
- Descriptive statistics assessed the demographic and baseline clinical characteristics
- Mann-Whitney, unpaired t-test, Chi squared, and Fisher's exact compared continuous and categorical variables as appropriate



Outcomes of first fresh IVF cycle among patients with anxiety or depression were similar between those on pharmacological management and those not

Figure 1: Cycle and Obstetric Outcomes

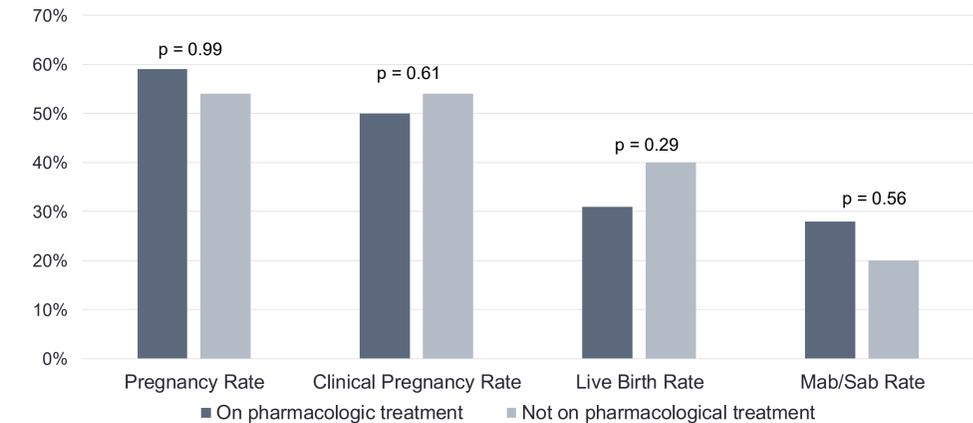
	Pharmacologic Management (N = 64)	No Pharmacologic Management (N = 77)	P-value
Harvested Oocytes	14 [8.25, 22.75]	17 [11, 22]	0.43
Mature Oocytes	11 [8, 19]	13 [9, 17]	0.44
%2PN [%]	83 ± 15	75 ± 16	0.04
# D5 blasts	5.5 [3, 8.75]	6 [4, 9]	0.31
Total gonadotropins [u]	3313 [2100, 4269]	2725 [2038, 4125]	0.28
Gestational age [weeks, days]	38w5d ± 1w4d	39w1d ± 1w4d	0.59
Birth weight [g]	3334 ± 561	3157 ± 478	0.40

RESULTS

Figure 2: Demographics were similar between those on pharmacologic management and those not

	Pharmacologic Management (N = 65)	No Pharmacologic Management (N = 76)	P-value
Age	35 [32.25, 36]	34 [32, 36]	0.46
Gravida	0 [0,0]	0 [0,1]	0.13
AMH	2.18 [1.30, 4.01]	2.22 [1.38, 3.36]	0.99
BMI	25.2 [21.9, 30.2]	23.9 [21.6, 28.3]	0.23

Figure 3: Pregnancy Outcomes



RESULTS

- A total of **141** patients met inclusion criteria, of whom **46% (65/141)** were taking psychiatric medication
- Demographics were similar between groups including **median age, BMI, and gravidity**
- Regarding **cycle outcomes**, there were **similar median number of harvested oocytes, mature oocytes, % 2PN** and number of **D5 blastocysts** between those on psychiatric medication and those not
- For **transfer outcomes**, there was a **similar positive pregnancy rate, clinical pregnancy rate, live birth rate and miscarriage rate**
- **Gestational age** at delivery and **birth weight** were similar between those on psychiatric medication and those not

CONCLUSIONS

- Anxiety and/or depression affects **up to 40% of women** undergoing infertility treatment, highlighting the importance of understanding the association between use of psychiatric medications and IVF outcomes
- Our results suggest that **pharmacologic management** of depression/anxiety **is not associated** with differences in IVF and fresh embryo transfer success
- There was a **non-significant trend** towards higher pregnancy and live birth rates among patients not on medical management. Given that our study may be underpowered, more investigation is warranted.

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