Supplementary Table S1. Baseline characteristics and embryological outcomes

Variable	POF Group (n = 249)	Control Group (n = 279)	p-value
Baseline characteristics			
Age, (years)	31.83 ± 5.82	30.10 ± 5.91	0.052
Weight, (kg)	67.72 ± 9.03	66.51 ± 8.54	0.231
AMH, (ng/mL)	0.53 ± 0.60	7.28 ± 4.76	< 0.001
FSH, (IU/L)	27.57 ± 17.35	8.65 ± 6.72	< 0.001
Embryological outcomes			
Total oocytes retrieved	4.53 ± 2.96	9.18 ± 5.23	< 0.001
MII oocyte rate, (%)	56.07 ± 20.13	70.84 ± 17.01	< 0.001
Fertilization rate, (%)	57.14 ± 20.71	69.95 ± 15.82	< 0.001
Blastocyst formation rate, (%)	36.72 ± 10.79	58.67 ± 18.56	< 0.001
Day 3 embryo count	2.08 ± 1.15	5.94 ± 2.57	< 0.001

* Notes: Data are presented as mean ± standard deviation. Group comparisons were performed using the independent samples t-test. ** Abbreviations: POF = Premature Ovarian Failure; AMH = Anti-Müllerian Hormone; FSH = Follicle-Stimulating Hormone; LH = Luteinizing Hormone; MII = Metaphase II. *** A p-value < 0.05 was considered statistically significant

Supplementary Table S2. Clinical outcomes and predictors of oocyte yield

Clinical outcome / predictors	POF Group (n = 249)	Control Group (n = 279)	p-value
Pregnancy outcomes			
Biochemical pregnancy, n (%)	21 (8.4%)	33 (11.8%)	0.462
Clinical pregnancy, n (%)	42 (16.9%)	78 (28.0%)	0.082
Live birth, n (%)	27 (10.8%)	63 (22.6%)	< 0.001
Miscarriage (per clinical pregnancy)	15 (35.7%)	15 (19.2%)	0.047
Regression analysis for oocyte yield			
AMH, (ng / mL)	0.610	[0.52, 0.70]	< 0.001
FSH, (IU / L)	-0.030	[-0.08, 0.02]	0.551
Age, (years)	-0.055	[-0.17, 0.06]	0.352

* Notes: For clinical outcomes, data are presented as number (percentage) and compared using the Chi-square or Fisher's exact test. Miscarriage rate is calculated per clinical pregnancy achieved. ** Regression Analysis: B = unstandardized regression coefficient; CI: Confidence Interval. The model was adjusted for age and weight ($R^2 = 0.42$). *** Abbreviations: POF = Premature Ovarian Failure; AMH = Anti-Müllerian Hormone; FSH = Follicle-Stimulating Hormone. **** A p-value < 0.05 was considered statistically significant