

Endometrial thickness and oocyte quality affect perinatal outcomes in intracytoplasmic sperm injection cycles

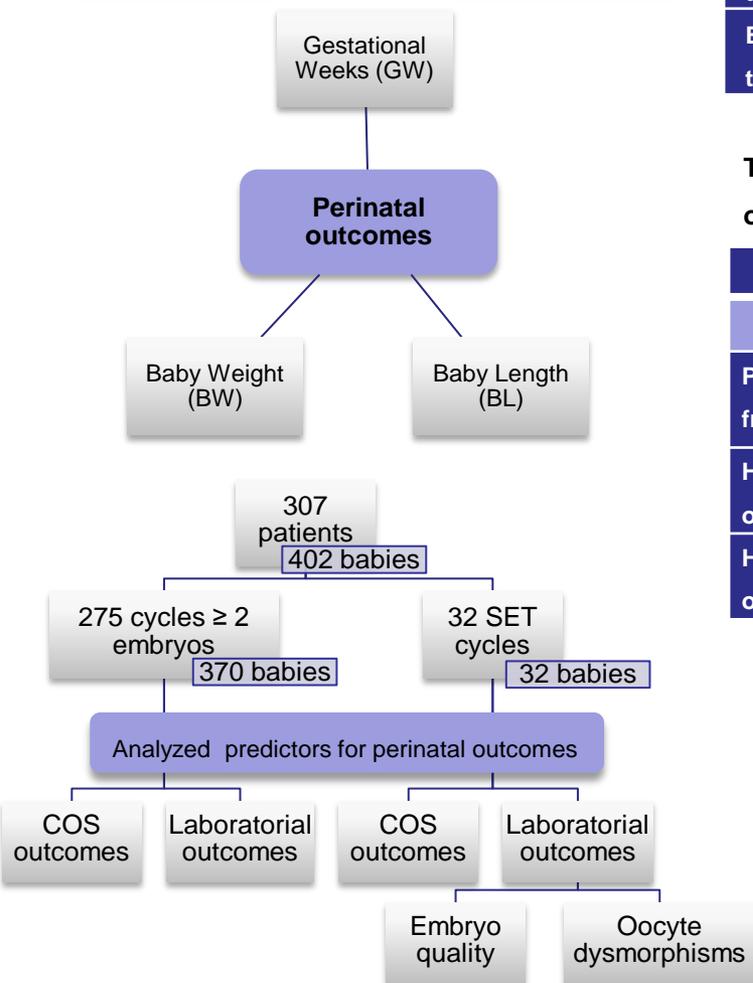
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INTRODUCTION

Pregnancies from assisted reproduction techniques (ART) cycles have been correlated with worse perinatal outcomes, such as preterm birth, low birth weight, small size for gestational age, and perinatal mortality. Nevertheless, it is still to be determined which aspects of ART pose greater risks of perinatal complications and how these risks can be minimized.

MATERIALS AND METHODS



Predictors for perinatal outcomes were obtained by Linear regression models adjusted for maternal age, maternal body mass index, number of transferred embryos, number of gestational sacs, and number of born infants

RESULTS

Table 1- Linear regression predictors for perinatal outcomes (n=402)

Variables	GW		BW		BL	
	β	p	β	p	β	p
Follicles	-0.005	0.818	-3.910	0.293	-0.069	0.018
MII oocytes	-0.004	0.889	-5.649	0.318	-0.087	0.050
GV oocytes	-0.124	0.164	-26.644	0.120	-0.405	0.003
Blastocyst transference	-0.978	0.037	-79.514	0.314	-1.141	0.108
Endometrial thickness	0.198	0.003	28.351	0.044	0.164	0.121

Table 2- Linear regression predictors for perinatal outcomes of SET cycles (n=32)

Variables	GW		BW		BL	
	β	p	β	p	β	p
PB fragmentation	-1.495	0.038	-449.918	0.016	-4.073	<0.001
High quality on day 2	3.159	0.014	118.700	0.753	2.496	0.363
High quality on day 3	0.983	0.124	388.358	0.022	-0.020	0.984

CONCLUSION

Perinatal outcomes are positively affected by embryo quality and endometrium thickness and negatively affected by the presence of oocyte polar body fragmentation.

Better perinatal outcomes may be achieved through the transfer of high-quality embryos to a proper endometrium. The presence of polar body fragmentation highly impacts the perinatal outcomes, suggesting that the fertilization of oocytes with this dysmorphism must be further evaluated.