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THE ISRAEL FERTILITY ASSOCIATION (IFA)
الجمعية الإسرائيلية لأبحاث الخصوبة

"Endometrial compaction", Is it really necessary for higher FET cycles success rates?

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INTRODUCTION

In FET cycles, minimal endometrial thickness expected on ovulation day, before addition of progesterone, is 7-8 mm. Recently, several studies evaluated the ultrasound changes that occur in the endometrium during the secretory phase, following exposure to progesterone and on the planned day of embryo transfer. They demonstrated that in FET cycles, there was a highly significant inverse correlation between the ongoing pregnancy rate and the change in endometrial thickness between the end of estrogen administration and the day of embryo transfer.

The aim of this prospective observational study was to explore if FET cycle outcomes are affected by the change in endometrial thickness from the last day of proliferative phase to the day of the transfer.

247 FET cycles were included in the study, 102 hormonally based cycles and 145 ovulatory based cycles.

Endometrial compaction was defined when a reduction in endometrial thickness was documented by measuring using TVS on the day of transfer, comparing to endometrial thickness on the last day of proliferative phase.

RESULTS

	Negative delta = compaction n = 92	Zero or positive delta = no compaction n=155	P value
Chemical Pregnancy	45/92 (48.9%)	72/155 (46.4%)	P=0.71
Clinical Pregnancy	30/92 (32.6%)	64/155 (41.3%)	P=0.17
Ongoing pregnancy	27/91 (29.7%)	44/152 (28.9%)	P=0.90

Endometrial compaction occurred in 92 cycles out of the 247 FET cycles included in the study (37.2%).

Pregnancy rates in this group were comparable to the group in which no compaction occurred (table 1). Endometrial thickness was not affected by the treatment protocol. However, endometrial compaction ,clinical and ongoing pregnancy rates were significantly higher in the Ovulatory based FET cycles. (table 2).

No correlation was found between endometrial compaction and positive pregnancy results among this group.

	aFET n=102	**Ov-FET n=145**	**P value**
Endo. thickness at the end of follicular phase (Avg, mm)	8.87±1.5	9.04±1.7	P=0.43
Endo. thickness at the day of transfer (Avg, mm)	9.72±1.98	9.62±2.33	P=0.72
Endo. compaction (negative delta) -n (%)	29/102 (28.4%)	63/145 (43.4%)	**P=0.016**
Chemical Pregnancy	42/102 (41.1%)	75/145 (51.7%)	P=0.10
Clinical Pregnancy	29/102 (28.4%)	65/145 (44.8%)	**P=0.009**
Ongoing Pregnancy	16/101 (15.9%)	55/142 (38.7%)	**P<0.001**

CONCLUSIONS

The observation of endometrial compaction is an interesting finding. Many theories have been suggested as an explanation to its' occurrence. Yet, accumulating data doesn't point to its' significance in affecting treatment outcomes.

REFERENCES

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