



## Is Luteal Phase Support Necessary in Natural Frozen–Thawed Embryo Transfer Cycles? Interim Analysis of a Randomized Controlled Trial

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**Introduction:** The use of frozen-thawed embryo transfer is becoming increasingly common in ART programs. While there is no physiological basis for the use of luteal phase support following NC-FET, the available data on its use is scarce and the results are conflicting. The aim of our study was to compare the reproductive outcome in NC-FET cycles with and without the use of vaginal progesterone for luteal phase support.

**Methods:** Patients undergoing NC-FET were invited to participate in a randomized controlled trial (RCT). All patients were serially followed by transvaginal ultrasound and blood levels of estradiol and progesterone. Ovulation was triggered by hCG when endometrial thickness of  $\geq 7$  mm and a follicle of 17 mm were detected. Group A did not receive any kind of luteal support. Group B patients received vaginal suppositories (Endometrin 100 mg, b.i.d.) as luteal support from the day of presumed ovulation.

**Results:** A total of 64 patients were recruited to the study which is still ongoing, and 41 are included in the interim analysis. Patients in both groups were comparable in terms of demographic, clinical and embryology data. No statistically significant differences were observed in implantation [6/24 (25%) vs. 10/87 (11.5%),  $p=0.18$ ], clinical pregnancy rate [5/12 (41.7%) vs. 10/29 (34.5%);  $p=0.73$ ] and ongoing pregnancy/live birth rate [4/12 (33.5%) vs. 6/29 (20.7%);  $p=0.44$ ] in groups A and B, respectively.

**Conclusion:** Luteal phase support in hCG-induced natural FET cycles has no effect on cycle outcome and is therefore unnecessary. There is no indication for a luteal phase defect in hCG-induced natural cycles. Our study is undergoing and its completion is necessary in order to confirm these findings.

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