

FIRST TRIMESTER PLACENTAL PROGESTERONE LEVELS IN HORMONE REPLACEMENT SINGLE BLASTOCYST TRANSFER CYCLE

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Abstract Body

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What is known already: Progesterone (P_4) plays an important role in maintaining pregnancy. In case of natural pregnancy, it is believed that progesterone secreted from the ovary contributes in maintaining pregnancy at early stages. However, its secretion from the ovary gradually decreases, being replaced by placenta-originated progesterone, which becomes the main player in maintaining pregnancy.

Objective: The purpose of this study is to evaluate precise placental progesterone levels in early pregnancy.

Design: Retrospective study from our IVF unit.

Methods: We examined 76 live birth cases and 44 miscarriage cases from June 2009 to May 2017. We examined the placenta-originated progesterone levels from the transfer day until 9 weeks 1 day. To exclude external progesterone influence we used synthetic progesterone drugs for hormone replacement in frozen-blastocyst transfer cycle. It is widely accepted that there is no progesterone secretion in hormone replacement cycles.

Results: In the live birth group, placental P_4 level rises at the sixth or seventh week of gestation. Mean P_4 level was 3.96 ng/ml at 7w0d and 14.90 ng/ml at 9w1d of gestation. In the miscarriage group, mean placental P_4 levels were lower than in the live birth group at any point of gestation.