

## TWO CASE REPORT OF IMPROVING IVF OUTCOMES USING TERM STIMULATION

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**Background:** Egg quality remains challenging in assisted reproduction, particularly in older patients, likely due to elevated FSH levels. We introduce "Term Stimulation" (TS) as an approach to improve egg quality by extending the follicular phase to its natural physiological duration seen in the most fertile patients.

**Methods:** Two patients with poor-quality embryos, attributed to poor egg quality, underwent a cycle of IVF using the TS protocol after two IVF attempts using a conventional protocol.

**Results:** Case 1. A 42-year-old patient with a BMI of 30 and an AMH level of 1.13 ng/ml experienced two prior IVF failures due to the absence of chromosomally normal embryos. In the TS cycle, aimed at extending the follicular phase to 17 days, ovarian stimulation began on the second day of her menstrual cycle. FSH dosage was adjusted to maintain the target FSH range between 15 and 20 mIU/ml. After achieving the desired 17-day follicular phase duration, hCG triggered ovulation, leading to the retrieval of seven eggs. Five mature eggs were fertilized through ICSI, and three developed into blastocysts. One chromosomally normal blastocyst was transferred, resulting in an uneventful ongoing singleton pregnancy, currently at 22 weeks. Case 2. A 37-year-old patient with an AMH level of 1.87 ng/ml, a BMI of 29, and a history of two prior IVF failures due to poor embryo quality opted for TS. This approach extended the follicular phase to 17 days, commencing ovarian stimulation on the third day of her menstrual cycle. FSH dosage was adjusted to maintain her target FSH range, which was set between 5 and 10 mIU/ml based on her baseline FSH. After reaching the 17-day follicular phase duration, hCG triggered ovulation, retrieving eight mature eggs. All eight eggs were fertilized, and five developed into high-quality blastocysts. Two blastocysts were transferred, leading to a successful singleton pregnancy with an uneventful term delivery.

**Conclusions:** Extending the follicular phase to "term" shows promise in overcoming poor egg quality. In addition to improving egg quality, at least in some cases, TS offers true cycle control, allowing trigger and retrieval date determination before stimulation begins, and has the potential to become a scalable, convenient, and cost-effective approach.

**Conflict of interest:** None.