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ABSTRACT

Title: Defining the time to return for in vitro fertilization after a successful delivery: is sooner better?

Objective: Define the optimal duration between IVF delivery and subsequent cycle start.

Design: Retrospective cohort

Setting: Academic hospital

Patients: IVF patients who delivered at ³ 23 weeks from 2012-2016 and returned for a subsequent cycle

Intervention: None

Main Outcome Measure: Ongoing pregnancy rate (OPR) at ³ 8 weeks

Results: 1,038 IVF patients delivered and 182 (22.0%) underwent another IVF cycle: 57 (31.3%) had a delivery-to-cycle interval (DCI) <12 months, 56 (30.7%) had a DCI of 12-17.9 months, and 69 (37.9%) had a DCI ³ 18 months. Shorter DCI was associated with older patient age, uterine factor infertility, shorter duration or absence of breastfeeding, use of donor oocytes in the subsequent cycle, and vitrification for cryopreserved cycles (CET). Compared to a DCI of 12-17.9 months, OPR was significantly lower with a DCI of either <12 months (aOR 0.42, 95% CI 0.18-0.94), or ³ 18 months (aOR 0.40; 95% CI 0.19-0.85). In subsequent fresh cycles, the effect was most pronounced for the shortest DCI (aOR 0.20; 95% CI 0.04-1.16). In contrast, for subsequent CET the lowest OPR was observed for DCI 18 months (aOR 0.38; 95% CI 0.14-1.01).

Conclusion: IVF outcomes may be optimized when patients wait 12-17.9 months after delivery to initiate a subsequent cycle.