Perinatal outcomes and cost-effectivity of the assisted reproduction pregnancies with advanced age: A retrospective analysis

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Context: Despite the widespread use of assisted reproductive techniques (ART), advanced maternal age is still a significant problem particularly, ovarian response, pregnancy and perinatal outcomes and cost-effectiveness.

Objective: We demonstrated the IVF-ICSI results, perinatal outcomes and cost-effectivity of the patients with advanced age at a tertiary center.

Methods: The data of the patients were collected from the patients between January 2011 to January 2013. First fresh antagonist cycles of all the patients were included in the study. Patients: A total of 456 patients were included in the study. The patients were categorized into two groups according to the age. Group 1 (n=158) (>=39years) and group 2 (n=298) (<39years) were analyzed retrospectively. In addition, subgroup analysis was performed according to the 40 years' cut-off.

Main Outcome Measures: Baseline, clinical and laboratory characteristics; miscarriage, ongoing pregnancy, preterm delivery, low birth weight rates, mean expense per cycle and pregnancy for hormonal stimulation.

Results: Clinical pregnancy rate was significantly different between the groups (p< 0.001). Preterm delivery (< 37 gestational week) and low birth weight (< 2500g) were significantly higher in advanced ages than younger (p< 0.001). Mean expense per cycle for hormonal stimulation of IVF-ICSI was 1058.9 USD and 723.5 USD in group 1 and 2, respectively (p< 0.001).Mean expense per pregnancy was 9294.7 USD and 1874.8 USD USD in group 1 and 2, respectively (p< 0.001).

Conclusions: Our study has shown that perinatal outcomes and cost-effectivity might be adversely affected with increasing age.