

Dichorionic-Diamniotic twin pregnancies: comparison of outcomes

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Objective

This study aimed to determine the differences in maternal outcomes between Dichorionic-Diamniotic (DCDA) twin pregnancies conceived by in vitro fertilization (IVF)/intracytoplasmic sperm injection (ICSI) pregnancies and those conceived spontaneously.

Methods

This study was a cohort study with data being retrospectively collected from electronic medical records (EMRs) at Hanoi Obstetrics & Gynecology Hospital (HOGH), Vietnam, in 2019. All women with DCDA twin pregnancies were considered for inclusion. Monochorionic twins and higher-order multiple pregnancies were excluded. All data related to complicated maternal outcomes were extracted from the hospital database and compared between DCDA twin pregnancies conceived by IVF/ICSI and those conceived spontaneously.

Results

Of 739 identified DCDA twin pregnancies, 483 (65.4%) were conceived through IVF/ICSI treatment (IVF/ICSI group), and 256 (34.6%) were spontaneously conceived (SC group). The women in the IVF/ICSI group had significantly higher risks of preeclampsia (adjusted odds ratio [aOR]: 2.50; 95% confidence interval [CI]: 1.12 - 5.55), cesarean delivery (aOR: 2.0; 95% CI: 1.27–3.17), a postpartum hemorrhage following cesarean section (aOR: 3.15; 95% CI: 1.53–6.45) but earlier gestational age (36.2 vs. 36.7 weeks, $p < 0.001$) than those in the SC group.

Conclusion

Our study demonstrated that women with DCDA twin pregnancies conceived through IVF/ICSI experienced more complications than those conceived spontaneously.