Is preimplantation genetic testing associated with increased risk of abnormal placentation?

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Background
- Preimplantation genetic testing (PGT) is intended to improve implantation rates and reduce risk of genetic conditions
- IVF, particularly frozen embryo transfer (FET), is associated with abnormal placentation
- It is not known if PGT increases this risk

Hypothesis
- Among pregnancies conceived after FET, use of PGT is associated with higher rates of abnormal placentation

Study Design
- Retrospective cohort study
- Inclusion: FET at UCSF, followed by delivery at UCSF
- Exposure: PGT

Primary outcome: composite of abnormal placentation (placenta accreta, placenta previa, vasa previa, marginal or velamentous cord insertion, circumvallate placenta, placental abruption, placenta membranacea, circummarginate placenta, placenta succenturiate, bipartite placenta, and retained placenta)

Results
- Of 311 FET pregnancies included, 51% had PGT
- Compared to non-PGT group, PGT group was older and more likely to undergo single embryo transfer
- PGT group and non-PGT group had no differences in
  - Composite of abnormal placentation (26.6% vs 27.4%, aOR 1.01, 95% CI 0.59-1.74)
  - Individual components of composite outcome

Conclusion
- Among pregnancies conceived by FET, use of PGT is not associated with increased risk of abnormal placentation

Among pregnancies conceived after frozen embryo transfer, preimplantation genetic testing is NOT associated with increased risk of abnormal placentation.

Questions?
Take a picture of this QR code to access the poster or email Dr. Swanson at Katherine.Swanson@ucsf.edu