Wednesday, February 13, 10:00AM-11:00AM Plenary Session

Making Babies Isn't Always Easy: Implications of Infertility

Moderator: Charlotte Druschel, Congenital Malformations Registry, Troy, NY

Germaine Buck Louis, National Institute of Child Health and Human Development, National Institutes of Health, Bethesda, MD

The epidemiology of human infertility is poorly described, especially with regard to etiologic determinants. This reflects, in part, our limited understanding of the male, female and couple based determinants of successful human reproduction. One relatively consistent observation is the distribution of time-to-pregnancy (TTP) among couples purposefully attempting to become pregnant. This distribution suggests that approximately 60% of couples will become pregnant by month six and 80% by month 12. The remaining 20% of couples who do not achieve pregnancy may be classified as infertile of which half may seek medical treatment.

Traditionally, TTP has been used to estimate of a couple's fecundity or biologic capacity for reproduction. Recent attention is also focusing on TTP as a predictor of perinatal outcomes. For example, infants born to couples requiring >6 months (conception delay) or >12 months (resolved infertility) for pregnancy are reported to be at increased risk of death, shortened gestation or diminished birth size in comparison to infants with a TTP <6 months. Of added concern is the observed relation between use of assisted reproductive technologies and adverse gravid health conditions and perinatal outcomes including birth defects. Some authors have attributed these risks to the couple's underlying fecundity impairments and not treatment, *per se*. However, other recent population-based research suggests that IVF conceived infants are at higher risk of adverse perinatal outcomes than spontaneously conceived infants born to infertile couples.

Today's talk will present the epidemiology of infertility as it relates to perinatal risks in the context of infertility treatment, particularly the assisted reproductive technologies. Population-based strategies for answering lingering questions about possible causal relations between fecundity, impairments, treatment and perinatal outcomes will be presented as an impetus for future research.