

# IUGR Up With More Embryos Transferred During IVF

BY SHARON WORCESTER  
Southeast Bureau

SAN FRANCISCO — The transfer of more than one embryo during in vitro fertilization has a substantial adverse residual effect on intrauterine growth—even when only one fetal heart is detected on early ultrasound, findings from a large historical cohort study suggest.

A review of data from 23,999 singleton live births resulting from assisted reproductive technology cycles performed from 2004 to 2006 showed that the risk for intrauterine growth restriction increased significantly with the number of embryos transferred; compared with one embryo transferred, the risks were increased by 16%, 24%, 34% and 56% when two, three, four, or five embryos were transferred, respectively, Barbara Luke, Sc.D., reported at the annual meeting of the American Society for Reproductive Medicine.

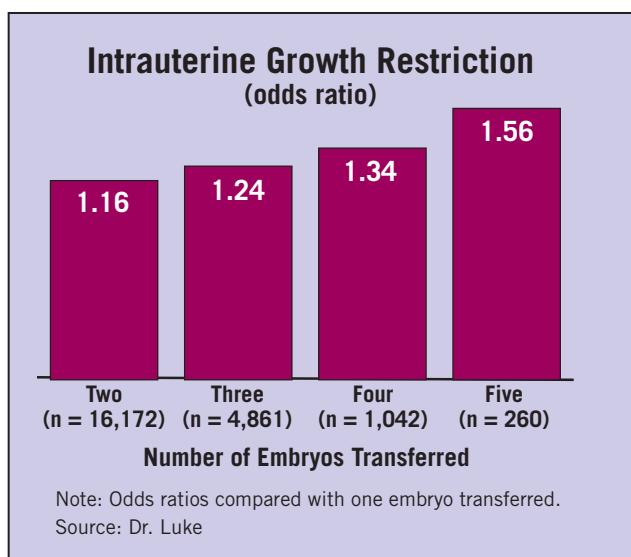
No differences were seen in preterm birth weights based on the number of embryos transferred.

Also, factors such as maternal age, birth weight (mean of 3,243 g), length of gestation (mean of 265 days), and birth weight for gestation (z score, mean of 0.30 standard deviation units) did not differ significantly across the embryo transfer

groups, noted Dr. Luke of Michigan State University, East Lansing.

Preterm birth was defined as birth prior to 37 weeks' gestation, and intrauterine growth restriction was defined as a z score of less than -1. The z score is a measure of intrauterine growth adequacy, with a mean of 0 (indicating the 50th percentile of intrauterine growth), she explained.

The findings support the theory that there is a critical period during which abnormal placentation related to the transfer of multiple embryos may adversely affect pregnancy—even for singletons, Dr. Luke concluded. ■



# Few Women Require Hysterectomy Post GEA

BY DOUG BRUNK  
San Diego Bureau

LAS VEGAS — The hysterectomy rate was less than 10% among 711 women who underwent global endometrial ablation, results from a long-term, single-center study showed.

Hematometra was present in 25% of the 44 women who had a hysterectomy because of pain and in 2% of the 25 women who had a hysterectomy because of bleeding. This marked the only significant difference between the two groups, according to Dr. Erin Carey, who called these the key findings from what is believed to be the largest study aimed at capturing the clinical and pathological characteristics of women who had a hysterectomy after global endometrial ablation (GEA).

"We know that women who are younger than 45 are more likely to fail global endometrial ablation, as well as women with a history of bilateral tubal ligation and those with a history of preoperative dysmenorrhea," said Dr. Carey of the depart-

ment of obstetrics and gynecology at the Mayo Clinic, Rochester, Minn. Other contributing clinical and pathological factors remain unclear. She reported the study findings at the annual meeting of the AAGL.

Dr. Carey and associates identified 711 women who underwent GEA for menorrhagia between January 1998 and December 2005. They compared data between women who underwent hysterectomy and those who did not during the follow-up period, which lasted a mean of 2.9 years.

Adenomyosis was present in 29% of women who had a hysterectomy for pain and in 28% who had a hysterectomy for bleeding. "Adenomyosis has been thought to be a major factor related to postablation pain syndrome," Dr. Carey commented. "However, we found that women had a lower rate of adenomyosis than we expected, and the rates were similar in both groups."

Dr. Carey had no disclosures to make. ■

# Outpatient Paracentesis Cuts Costs for OHSS

BY SHARON WORCESTER  
Southeast Bureau

SAN FRANCISCO — Outpatient paracentesis is one-fifth the cost of hospitalization for managing ovarian hyperstimulation syndrome.

The total direct cost (2007 estimates) would be \$10,098 for inpatient therapy including first-tier complications, compared with \$1,954 for outpatient management, Dr. Joelle E. Taylor reported at the annual meeting of the American Society for Reproductive Medicine.

The finding is based on a decision-tree analysis derived from outcome probabilities and outpatient management effectiveness data from the published literature and from a retrospective chart study.

For the analysis, conservative inpatient treatment was compared with outpatient paracentesis in patients with moderate to severe ovarian hyperstimulation syndrome (OHSS)—a syndrome that occurs in up to 5% of assisted reproductive technology cycles and has potentially severe complications such as thromboembolism and respiratory distress syndrome.

"Early intervention and outpa-

tient management translated into a cost savings of more than \$8,100 per patient," said Dr. Taylor, who was a visiting resident at the National Institute of Child Health and Human Development, Bethesda, Md., at the time the study was conducted. Currently, Dr. Taylor is an ob.gyn. at Wake Forest University, Winston-Salem, N.C.

Even after varying the probability of admission following outpatient treatment, outpatient paracentesis remained the most cost-effective treatment strategy, and varying the duration of hospitalization showed that inpatient and outpatient treatment costs were comparable only when the hospital stay was 0.71 days or less, Dr. Taylor noted.

Furthermore, if every patient with OHSS who was managed on an outpatient basis required three paracenteses to resolve the syndrome, the outpatient treatment cost increased by less than \$900 (to \$2,851)—still a marked reduction compared with the cost of inpatient therapy, Dr. Taylor said.

"The cost savings [with outpatient paracentesis] persisted despite a variety of outcome probabilities and treatment scenarios," she said. ■

# Birth Control May Harm Natural Defenses Against Herpesvirus

BY HEIDI SPLETE  
Senior Writer

WASHINGTON — Using hormonal contraceptives might weaken a woman's natural immunity to the herpesvirus, according to findings from a pilot study of healthy women aged 18-35 years.

Findings from previous epidemiologic studies suggest that women who use hormonal contraception are at increased risk for sexually transmitted infections and herpes simplex virus (HSV) shedding. Yet clinical studies have shown that "cervicovaginal lavage fluid protects against HSV, HIV, and bacteria," lead author Dr. Gail F. Shust said at the jointly held annual Interscience Conference on Antimicrobial Agents and Chemotherapy and the annual meeting of the Infectious Diseases Society of America.

Dr. Shust and colleagues from Albert Einstein College of Medicine, New York, measured anti-HSV activity and levels of immunity associated with hormonal contraception use by collecting samples of cervicovaginal lavage (CVL) fluid from 16 women once a week for 3-8 weeks. Nine women had normal ovulatory cycles and served as controls, and seven women used hormonal contraception.

When average values from the repeat CVL samples from each woman were compared, in the follicular phase, women using

hormonal contraception showed significantly less anti-HSV activity compared with the controls. In the luteal phase, the difference did not reach statistical significance.

When individual fluid samples were compared (for a total of 94 samples), the anti-HSV activity in women using hormonal contraception was significantly lower, compared with the controls, in both the follicular and luteal phases.

Correlations between anti-HSV activity and specific mucosal mediators that can inhibit herpes infection were measured through a Spearman's rank correlation coefficient analysis. Based on this measure, anti-HSV activity was positively correlated with levels of human neutrophil peptides (HNPs) 1, 2, and 3 (Spearman's rho = 0.45), lactoferrin ( $r_s = 0.52$ ), lysozyme ( $r_s = 0.58$ ), and IgA ( $r_s = 0.44$ ). In addition, anti-HSV activity was negatively correlated with interferon-alpha 2 ( $r_s = -0.36$ ). Each of these correlations was statistically significant.

The study was limited by its small size and intrasubject and intersubject variability in anti-HSV activity.

These findings may provide a biologic explanation for the epidemiologic findings of increased risk for acquisition of sexually transmitted infections, and for HSV shedding, in the setting of hormonal contraception, the researchers said. Dr. Shust reported no financial conflicts of interest. ■