New Study Provides More Accurate Pregnancy Rates Predictions for Intrauterine Insemination Based on Total Motile Sperm Count

Shady Grove Fertility—a national leader in fertility—presents study findings at the 2015 ASRM Annual Meeting.

Baltimore, MD (PRWEB) October 20, 2015 -- Shady Grove Fertility, a recognized leader in infertility research and treatment, announced today the results of a study that provides better predictions for the success of intrauterine insemination (IUI) based on the sperm sample. Redefining and Clarifying the Relationship between Total Motile Sperm Counts (TMSC) and Intrauterine Insemination Pregnancy Rates was presented by Rachel Rubin, PhD., a Georgetown University resident, and co-authors from Shady Grove Fertility at the American Society for Reproductive Medicine (ASRM) Annual Meeting in Baltimore, Maryland this week.

**Intrauterine insemination** is one of the most basic forms of fertility treatment and has provided many women and men who have struggled to conceive with the ability to build their families. Compared with more intensive treatments such as in vitro fertilization (IVF), IUI comes at a lower financial cost, however, is associated with lower pregnancy rates. Couples with infertility—in whom tubal blockage and severe male factor have been excluded—generally face the decision of whether to pursue IUI or IVF treatment. While some factors, such as female age, have been known to influence IUI outcomes, clinicians have had few tools at their disposal to tailor counseling regarding chances of success with IUI. In addition to maternal age, sperm count has been known to have an impact on pregnancy rates with IUI treatment; however, precise predictions based on sperm count were not possible, as limited data were available.

Based on a retrospective study of over 47,500 IUI cycles, Shady Grove Fertility has developed a model to predict IUI success based on total motile sperm count in the sample used for IUI. Before an IUI cycle, most patients will have a sperm wash to prepare the sample for insemination. At this time, the andrologist will count the total motile sperm collected. The sperm count can range from nearly zero to tens of millions.

For the average couple in this study who underwent IUI with a post-wash total motile sperm count of at least 9 million, the chances of a clinical pregnancy with one IUI cycle using washed sperm was 16.9 percent. If the count was above 9 million the researchers observed the same chances of success. The results remained consistent if the sample used for insemination had 9 million, 10 million, or 20 million moving sperm. Success rates steadily fell as the sperm count decreased from 9 million.

“This is important data because it is often difficult to gauge the effect of a male factor intervention. This data set, which is unmatched in its robustness, gives us a clear idea that even modest gains in sperm count and motility can affect a couple's chances of becoming pregnant through assisted reproductive technology,” said Paul R. Shin, M.D., reproductive urologist at Shady Grove Fertility.

At Shady Grove Fertility, a semen analysis is part of any couple’s initial fertility work-up. This helps determine if male factor infertility may be playing a role in the couple’s inability to conceive, as well as provide insight into which treatment option may offer the best chance of pregnancy. When considering expected total motile sperm count for an IUI, two important variables need to be accounted for: total motile sperm count from the baseline semen analysis and the impact that sperm will have on that number.

Based on the findings, physicians can now counsel patients about their potential success rates with IUI and
whether it is the right treatment option for them. When a semen analysis shows a borderline or low sperm count, patients can undergo diagnostic semen wash to give a more accurate expectation of total motile sperm count expected to be obtained for IUI treatment, and thereby obtain a refined understanding of their chances of success.

Another Shady Grove Fertility study being presented at the 2015 ASRM meeting looked at factors that may be able to predict post-wash total motile sperm count and found that baseline sperm morphology is likely the most important predictor. Together, these studies demonstrate that post-wash total motile sperm count can provide valuable decision making information to couples deciding between IUI and IVF treatment. With more accurate, individualized expectations, patients can make informed decisions about treatment, which was the Shady Grove Research team’s primary goal in conducting this study.

About Shady Grove Fertility
Shady Grove Fertility is a leading fertility and IVF center of excellence offering patients individualized care, innovative financial options, and pregnancy rates among the highest of all national centers. Since 1991, more than 37,000 babies have been born to patients from all 50 states and over 35 countries around the world. Shady Grove Fertility physicians actively train residents and reproductive endocrine fellows and invest in continuous clinical research and education to advance the field of reproductive medicine through numerous academic appointments and partnerships with Georgetown Medical School, Walter Reed, and the National Institutes of Health. Today, 34 reproductive endocrinologists, urologists, Ph.D. scientists, geneticists, and more than 600 highly specialized Shady Grove Fertility staff care for patients in 18 full-service offices, and six satellite sites throughout Pennsylvania, Maryland, Virginia, and Washington, D.C. For more information, call 1-888-761-1967 or visit www.ShadyGroveFertility.com.
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