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MEDICAL UPDATE

ASRM 2021
Scientific Congress & Expo

SGF research informs how to safely improve outcomes for your patients

Look inside for an in-depth view into some of SGF's recent research presented at the American Society for Reproductive Medicine's (ASRM) 2021 Scientific Congress and Expo. Our commitment to research and innovation means safer and more efficient ways of helping your patients overcome infertility.

Society for Assisted Reproductive Technology
Prize Paper

Endometrial receptivity analysis (ERA) does not improve chances of achieving an ongoing pregnancy from a frozen blastocyst transfer (FBT)

ASRM 2021 Corporate Member Council
In-Training Award

Uptake of cancer genetic testing in the infertility population meeting NCCN criteria

SRS
In-Training Award

Immediate start IVF stimulation following polypectomy does not impact pregnancy outcomes in large multicenter cohort of over 1,600 embryo transfers

Learn more about SGF's award-winning fertility research →

shady grove fertility

MEDICAL UPDATE

Shady Grove Fertility (SGF) presents 26 research abstracts and receives awards at the 2021 American Society for Reproductive Medicine (ASRM) Scientific Congress & Expo

Shady Grove Fertility's (SGF) physician-scientists presented 26 research abstracts during the 2021 American Society for Reproductive Medicine (ASRM) Scientific Congress & Expo as part of the practice's commitment to advancing knowledge and improving assisted reproductive technology (ART) treatment outcomes.

Hosted in-person in Baltimore and available on-demand this year, the 77th ASRM Scientific Congress and Expo took place October 17–20, 2021, and attracted more than 8,000 national and international physicians and professionals — distinguished academicians, clinicians, and scientific investigators in the field of human reproduction. To reflect and encompass the broad scope of reproductive medicine, this year's theme is Reproduction Reimagined.

As SGF celebrates 30 years of continuous innovation for fertility care, the physicians at SGF continue to make a sustained commitment to clinical research and educating physicians in training. SGF is one of only a few private practice fertility centers in the country to employ a full-time dedicated research team, which operates under Director of Research, Kate Devine, M.D.

> "Our dedication to research aims to better help our patients. Our high-quality research enables us to provide the best possible information and treatment outcomes to those struggling with infertility."
>
> **Kate Devine, M.D., Director of Research**

Featured SGF physician research team

Kate Devine, M.D.

Nicole P. Doyle, M.D., Ph.D.

Michael J. Levy, M.D.

Jeanne E. O'Brien, M.D., M.Sc.

Eric A. Widra, M.D.

Endometrial receptivity analysis (ERA) does not improve chances of achieving an ongoing pregnancy from a frozen blastocyst transfer (FBT)

Society for Assisted Reproductive Technology
Prize Paper

SGF research team
Nicole P. Doyle, M.D. Ph.D.; Samad Jahandideh, Ph.D.; Michael J. Levy, M.D.; Eric A. Widra, M.D.; and Kate Devine, M.D.

Research contributors
Micah J. Hill, D.O.

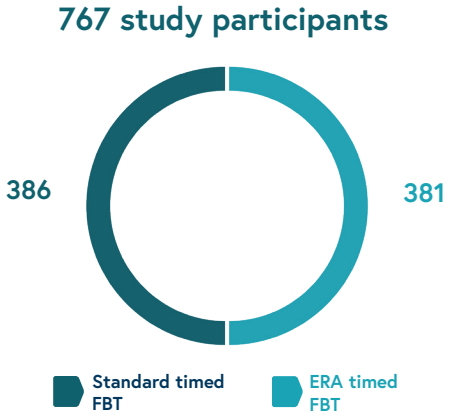
The study

An endometrial receptivity analysis (ERA) — a genetic test that takes a small sample from the endometrial lining to determine the best timing for an embryo transfer during an IVF cycle — is sometimes suggested after multiple failed transfers. However, patients without a history of loss or failed implantation could be curious to know if an ERA could provide needed information.

SGF researchers aimed to compare live birth rates from single euploid frozen blastocyst transfer (FBT) according to Endometrial Receptivity Analysis (ERA) versus standardized timing.

The results

In the intention-to-treat (ITT) analysis, there were no differences in the proportion of subjects with non-receptive ERA, nor in the primary or secondary FBT outcomes (see table). The research concludes that an ERA does not improve chances of achieving an ongoing pregnancy from a FBT and calls for further research on the benefits of ERA for recurrent implantation failure.



	Study Group; N (%)	Control Group; N (%)		
Patients	381	386		
ERA RESULT				
Receptive	170 (44.6)	178 (46.1)		
Non-Receptive	211 (55.4)	208 (53.9)		
• Pre-receptive	122 (32.0)	120 (31.1)		
• Early receptive	74 (19.4)	77 (19.9)		
• Late receptive	14 (3.7)	11 (2.8)		
• Post-receptive	1 (0.3)	0 (0.0)		
FBT OUTCOMES			Rate ratio (95% CI)	P-value
Positive hCG (per FBT)	294 (77.2)	307 (79.5)	0.97 (0.83-1.14)	0.48
Pregnancy loss (per positive hCG)	64 (21.8)	66 (21.5)	0.98 (0.70-1.39)	1.00
Ongoing pregnancy (per FBT)	227 (59.6)	241 (62.4)	0.96 (0.80-1.14)	0.46

For your patients

Patients without a history of loss or failed implantation doing FBT may not need to do an ERA. This can save patients time and money while still ensuring they have given their embryo the best chance at success.

Immediate start IVF stimulation following polypectomy does not impact pregnancy outcomes in large multicenter cohort of over 1,600 embryo transfers

SRS
In-Training Award

SGF research team
Samad Jahandideh, Ph.D.; Kate Devine, M.D.; Eric A. Widra, M.D.

Research contributors
Steven Gay, M.D.; Ashley Ulker, M.D.; Micah Hill, D.O.; Alan DeCherney, M.D.

The study

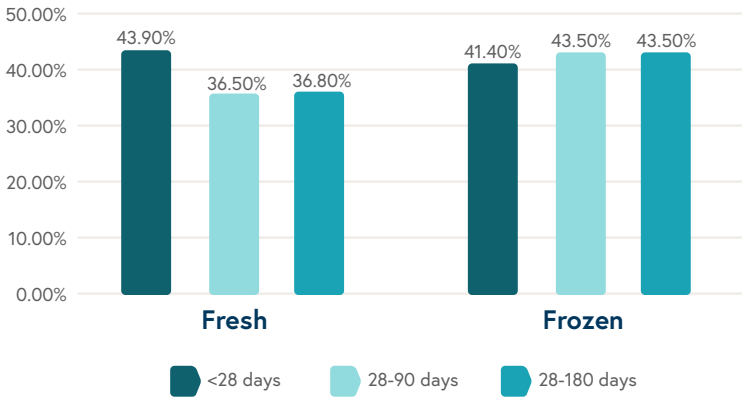
Endometrial polyps are frequently found during routine infertility workups and can have negative effects on treatment if not removed. A hysteroscopic polypectomy removes these polyps before treatment begins. SGF sought to determine if delayed IVF stimulation start after hysteroscopic polypectomy has superior pregnancy outcomes when compared to an immediate start in both fresh and frozen embryo transfers.

SGF researchers analyzed 1,619 IVF cycles following hysteroscopic polypectomy, including 488 fresh cycles and 1,131 frozen cycles.

This study cohort was divided into three groups consistent with prior studies according to time to embryo transfer at intervals of:

- within 28 days
  (represents "immediate IVF stimulation start"),
- 28-90 days, and
- 28-180 days for both fresh and FET.

Live birth and ongoing pregnancy rate based on time to transfer

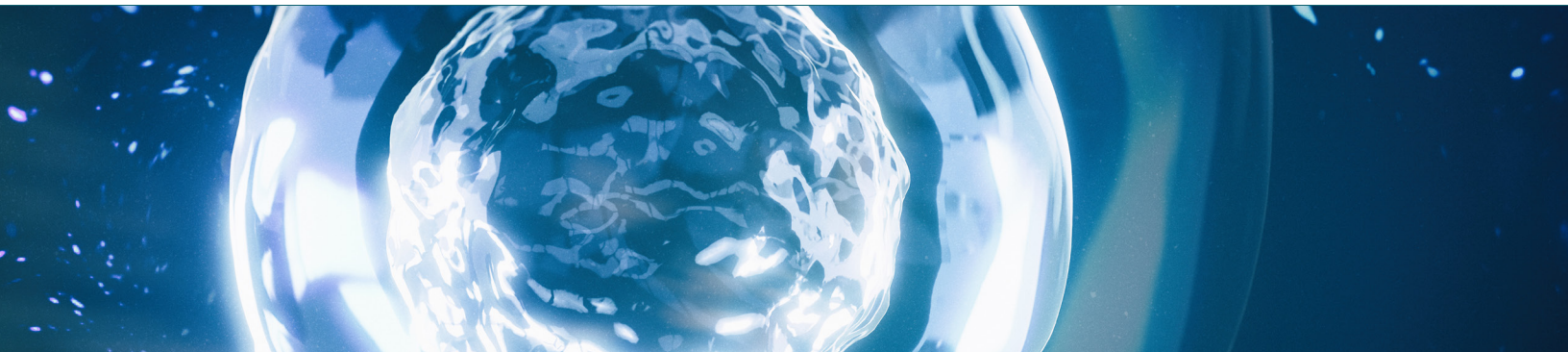


The results

Delaying either fresh or frozen embryo transfer following hysteroscopic polypectomy does not significantly improve pregnancy outcomes. The study is the first of its size to demonstrate that a short interval to fresh or frozen embryo transfer following polypectomy does not negatively impact pregnancy outcomes and is therefore an acceptable option to offer patients.

For your patients

With this information, patients can now proceed to an embryo transfer without a delay following a hysteroscopic polypectomy.



ASRM 2021 Corporate Member Council
In-Training Award

Uptake of cancer genetic testing in the infertility population meeting NCCN criteria

SGF research team
Samad Jahandideh, Ph.D.; Kate Devine, M.D.; Jeanne O'Brien, M.D., M.Sc.

Research contributors
Karrie Walker, D.O.; Amalia Namath, M.D.; Micah Hill, D.O.; Alan DeCherney, M.D.

The study

PGT-M testing can detect specific genetic defects within an embryo. Often patients are aware of diseases they have, or a family may have, so their care team might suggest they undergo genetic testing to help reduce chances of passing on the genetic disease. The National Comprehensive Cancer Network (NCCN) provides guidelines for patients at risk of hereditable cancer based on personal and family history.

The study provides a retrospective analysis of all female patients receiving genetic counseling for expanded carrier screening between April 2019 to December 2020 who met NCCN criteria for genetic testing. A total of 883 patients met inclusion criteria, 736 infertility patients and 147 pregnant patients.

640 (87%) of the female infertility patients declined the testing.

117 (79.6%) of the pregnant patients declined testing (p = 0.01).

The results

Compared to the obstetric population, the reproductive medicine population appears less likely to be interested in obtaining genetic testing for hereditary cancer syndromes. Focused studies are needed to understand why this eligible group has such a high declination rate. The ability to test prior to pregnancy in the infertility population has the potential to reduce cancer risk in future offspring if PGT-M is used.

For your patients

A better understanding of the factors leading to this reluctance could assist in designing future care models for patients. Patients at higher risk for genetic diseases should talk with their care team to understand how genetic testing could play a role in their fertility care.

18 SGF studies submitted to ASRM 2021 Scientific Congress & Expo

- Maternal body mass index does not impact the duration of estradiol (E2) exposure during preparation for frozen blastocyst transfer
- Comparison of ICSI with fresh and frozen ejaculated sperm in donor oocyte recipient cycles utilizing sibling oocytes
- Obesity is associated with reduced peak serum estradiol concentration in programmed hormone replacement frozen embryo cycles
- Comparison of four national reproductive genetics lab PGTA results from vitrified donor eggs
- The impact of ethnicity on outcomes in autologous oocyte cryopreservation/ thaw cycles
- Trends in elective egg freezing before and after the COVID-19 pandemic
- The utility of preimplantation genetic testing for aneuploidy during IVF in patients with different infertility diagnoses
- Outcomes for gestational carriers versus known carriers, including same-sex couples
- Expanded carrier screening and clinical decision making in 2020
- Immediate start IVF stimulation following polypectomy does not impact pregnancy outcomes in large multicenter cohort over 1,600 embryo transfers
- The impact of duration of oocyte cryopreservation on live birth outcomes in IVF cycles using autologous thawed oocytes
- Do ultrasound characteristics predict miscarriage in PGT-A tested euploid embryos?
- Utilization of preimplantation genetic testing for monogenetic gene mutations associated with increased cancer
- Ovarian stimulation-intrauterine insemination cycles: How many is too many?
- Uptake of cancer genetic testing in the infertility population meeting NCCN criteria
- A randomized controlled trial comparing live birth from single euploid frozen blastocyst transfer using standardized timing versus timing by endometrial receptivity analysis
- Preimplantation genetic testing for aneuploidy using next generation sequencing is superior to conventional IVF in 35 years or older patients
- Choosing not to use: Examining the reasons behind discarding vitrified eggs

Scan QR code to read all abstracts presented at the 77th Scientific Congress of the American Society for Reproductive Medicine