

Reassuring outcomes for single and coupled gay men using assisted reproductive technology

Assisted reproductive technology (ART) has enabled several individuals and couples to become genetic parents when they could not have done so previously, including those in the lesbian, gay, bisexual, transgender, and queer (LGBTQ+) community. A recent American Society for Reproductive Medicine (ASRM) Ethics Committee Opinion highlighted the importance of healthcare access to the LGBTQ+ community and emphasized it as a national priority (1).

Over the last decade, the number of in vitro fertilization cycles in the United States for gay male couples using donor oocytes and a gestational carrier (GC) has increased (2). Much of the previous literature regarding ART and gay male couples has reported on motivations, treatment experiences, support needs, relationships with oocyte donors and GCs, legal issues, and fatherhood after ART (3). However, reports of ART outcomes within this minority group are curiously absent from much of the literature. In 2020, the Centers for Disease Control and Prevention reported that there were 269,327 same-sex male household couples in the United States, yet little is known regarding the outcomes of single and gay male couples who pursue a path to parenthood (4). How should we counsel this population regarding which sperm source to use? Should preimplantation genetic testing for aneuploidy be used? How many embryos should be transferred? What are the success rates within this population, and does this differ from other patients pursuing ART? What confers the best chance at a live birth for these patients?

In last month's issue of *F&S Reports*, Monseur et al. (5) presented the largest US multicenter study to date describing the demographic characteristics, clinical choices and decision-making processes, and reproductive outcomes of single and coupled intended fathers with fertility insurance coverage who used donor oocytes and a GC. Although this was a descriptive study with a relatively modest sample size, the investigators did a commendable job recounting the history of family-building in the US LGBTQ+ community, as well as the many obstacles to parenthood this marginalized group has had to overcome.

The overall results of the study were highly encouraging, with a live birth rate of 85.2%. The investigators suggested that outcomes for single and coupled intended fathers serve as the new gold standard for in vitro fertilization success. They further found that preimplantation genetic testing for aneuploidy was used in nearly all (98%) cycles, most patients used agency- or fertility clinic-based oocyte donors as opposed to directed donors, 100% used a GC agency, and for most male couples, both partners wished to serve as the sperm source in most cases.

Importantly, although most embryo transfers in this study were of a single euploid embryo (74%), 26% (7/27)

were double embryo transfers (DETs), of which 43% (3/7) resulted in a twin gestation. Meanwhile, <20% of nationally reported transfers in women aged <35 years involve >1 embryo. This study demonstrated an overall elevated incidence of twins (15%), likely related to the patient's choice of DET. The decision to pursue a DET, as suggested by the investigators, may have included the financial burden of surrogacy, patients' perception that a DET would lead to increased success, and a desire to avoid which sperm source to use first. The intention of providers to ignore the ASRM's standard of care SET guidelines and use DET in this minority group is not well understood and is an area for further investigation. Should providers bend the rules for those using GCs? Perhaps clinics that offer GC cycles should consider standard policies regarding embryo transfer practice that reflect the ASRM recommendation specifically within the context of GC arrangements (including LGBTQ+ care).

We sincerely applaud the investigators for addressing the numerous barriers to access to reproductive healthcare that are unique to this minority population as well as for investigating clinical outcomes in an area of ART that is vastly understudied. As noted, the population of single and coupled intended fathers is highly successful in achieving a live birth using donor oocytes and a GC, and we agree with the investigators that a "gayby boom" is on the horizon. Guidelines for inclusive environments and special treatment considerations are needed to address the ever-increasing use of ART by this marginalized population, especially as more than half of cycles that use both donor oocytes and GC are used by single or coupled intended fathers in the United States. The comprehensive overview presented by the investigators on the historical background underlying the evolution of LGBTQ+ family-building is well researched, and this study helps to both identify and fill important gaps in the literature.

Alexandra Peyser, M.D.

Randi Goldman, M.D.

Department of Obstetrics and Gynecology, Division of Reproductive Endocrinology, Northwell Health, North Shore University Hospital, Manhasset, New York

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