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with HCG trigger and luteal support, or medicated using hormonal replacement. Natural cycles consisted of LH testing and follicular monitoring for development of a dominant follicle, followed by ovulation trigger using recombinant hCG at a follicular size of 16-18mm and endometrium > 8 mm. A er ovulation trigger, vaginal progesterone (200 mg twice daily) was prescribed for luteal support, and the blastocyst transfer occurred 7 days a er hCG trigger. A programmed cycle consisted of pituitary down regulation with GnRH agonist followed by estrogen replacement of 2 mg estradiol three times daily with the addition of progesterone (50 mg progesterone IM and 200mg twice daily vaginal) once the endometrium was > 8 mm. All embryos were blastocysts of 3BB quality or better upon freezing [6]. All freezing was performed using a slow freezing protocol.

Frozen blastocysts were thawed using Quinn's Advantage Embryo aw Kit (Sage Biopharma, Pasadena, CA). Once thawed, the embryos were plated and stored in a 37° incubator until just before transfer. Under ultrasound guidance, the embryos were transferred using Tefcath or Echotip So pass catheters (Cook Ob/GYN, IN). Nine days a er transfer, all patients had serum hCG performed. Clinical intrauterine pregnancy was de ned as a gestational sac identi ed on transvaginal ultrasound between 6 and 7 weeks gestation.

Implantation rate was de ned as the number of gestational sacs seen at 6 -7 weeks per number of embryos transferred per patient. Pregnancy rate was calculated as the number of clinical pregnancies (with one or more gestational sacs) divided by the total number of patients. Statistics were calculated using two-tailed Student t test, and χ^2 test. A p-value of less than or equal to 0.05 de ned statistical signi cance.

Results

Of the 180 patients who had previously undergone fresh blastocyst transfer, and met inclusion criteria for our prior study comparing Asian and Caucasian women [1], 72 subsequently underwent frozen blastocyst transfer between December of 2004 and December of 2009. Among the 72 patients, 42 (58.3%) self-identi ed as Caucasian and 30 (41.7%) as Asian.

Comparing the two groups of women, there was no signi cant di erence in maternal age at time of oocyte retrieval (p=0.44). Consistent with our previously reported ndings for the fresh transfer [1], there was a signi cant di erence in BMI among the Asians versus Caucasians (22.1 vs. 24.2 kg/m2; p=0.02). However, there was no di erence in the proportion of nulligravid and nulliparous patients or in the rate of live birth a er the initial fresh blastocyst transfer between the two groups (Table 1). Both Asian and Caucasian women had similar distributions of polycystic ovarian syndrome, endometriosis, diminished ovarian reserve, and unexplained infertility, as previously described (Table 1). e FET treatment protocol was similar between groups, where 83.3% of Caucasians and 80% of Asians underwent natural cycle frozen blastocyst transfer. e cycle length, endometrial thickness and number of embryos transferred between treatment groups (Table 2) were not statistically di erent.

Implantation rates (IR), pregnancy rates (PR), and live birth rates were similar between the two groups (Table 2).

Discussion

Disparities in many health indicators have been reported to vary by ethnicity and race. Within the reproductive life cycle, from menarche to menopause, racial and ethnic di erences in reproductive potential have been described [2]. is diversity in outcomes warrants continued research, as understanding such di erences may lead to improved understanding of disease mechanisms. Similarly, treatment regimens can be better individualized to improve outcomes, such as success a er ART. In an e ort to improve this understanding, SART has included ethnicity as a reportable outcome, and states that one of its missions is to reduce disparities in reproductive health and pregnancy outcomes among the underrepresented populations by addressing reproductive

and Caucasian Ethnicity

To date, the exact etiology for the discrepancy in reproductive outcomes between Asian and Caucasian women has yet to be de ned. Prior studies examining ART outcomes have shown signi cant di erences despite controlling for confounders such as embryo quality and ovarian reserve [1,4]. It has been postulated that alterations in the endometrium may be a contributing factor. Sampling endometrium 7-8 days postovulation in patients undergoing IVF, Basir, et al. reported dyssynchronous development of endometrial glands and stroma in patients who responded excessively a er stimulation (estradiol concentrations of ≥ 20,000 pmol/l or 5448pg/ml) [8]. Since this corresponds to the time of maximum uterine receptivity, they attributed the lower IR and PR among those undergoing IVF to discordant glandular and stromal development [8].

When comparing IVF success rates in Caucasians versus Asians, Purcell, et al. found that despite similar total and starting doses of gonadotropins, number of follicles produced, and oocytes retrieved, Asian patients had signi cantly higher levels of estradiol levels (2,740 vs. 2,383 pg/dL, p<0.01) [5]. ese women also had reduced IR and PR compared to their Caucasian counterpartsr 5448pg/ml) [8e wesg (o)12 (m)ed]. mo9 (i)7 ()3 (si)-3 -1(um)10 (b)-9 (er)0.5 (o)12 (f)7l. fj