

pregnancy (n=56) and clinical pregnancy loss as a loss following ultrasound confirmed pregnancy (n=133). RR and 95% CIs for pregnancy loss were estimated using generalized linear models adjusted for age and the probability of confirmed pregnancy using stabilized inverse-probability-weights.

RESULTS: Among women who became pregnant during this study (n=771), 279 were in the low tertile, 275 were in the middle tertile and 217 were in the high tertile. After adjusting for age, those in the low and high leptin tertiles did not have a higher risk of chemical pregnancy loss compared to the reference middle tertile group (low tertile: RR 0.89, 95% CI 0.48, 1.65; high tertile: RR 1.13 95% CI 0.61, 2.09). Additionally, there was no difference in clinical pregnancy loss among the groups (low tertile: RR 0.88, 95% CI 0.61, 1.28; high tertile: RR 1.02, 95% CI 0.69, 1.46) compared to the middle tertile. Similar results were noted after adjusting for body mass index.

CONCLUSIONS: Preconception leptin levels were not associated with an increased risk of chemical or clinical pregnancy loss among women with a history of prior pregnancy losses. Our data suggests that leptin levels are not associated with early pregnancy loss.

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C-REACTIVE PROTEIN AND PREGNANCY LOSS: RESULTS FROM THE EFFECTS OF ASPIRIN IN GESTATION AND REPRODUCTION (EAGER) TRIAL. S. L. Mumford,^a L. Sjaarda,^b R. Silver,^c R. Radin,^d E. Mitchell,^b E. Schisterman,^c ^aNICHD, NIH, Rockville, MD; ^bNICHD, Rockville, MD; ^cUniversity of Utah, Salt Lake City, UT; ^dNIH, Rockville, MD; ^e Eunice Kennedy Shriver National Institute of Child, Rockville, MD.

OBJECTIVE: A relationship between systemic inflammation and pregnancy loss has been reported. Therefore, we determined whether baseline inflammatory status, as indicated by C-reactive protein (CRP), was associated with pregnancy loss.

DESIGN: Secondary analysis of the EAGeR Trial, a multicenter, block-randomized, double-blind, placebo-controlled clinical trial to evaluate the effect of preconception-initiated daily low dose aspirin on reproductive outcomes in women with a history of pregnancy loss.

MATERIALS AND METHODS: Participants were attempting pregnancy, aged 18-40 years, with one to two prior pregnancy losses and no history of infertility or other gynecologic disorders. We assessed high-sensitivity CRP, a marker of systemic inflammatory status, at baseline prior to randomization to LDA or placebo. Women were allocated to tertiles based on their CRP concentration at baseline (12 missing CRP): low (n=279, <0.72 mg/L), medium (n=264, 0.72 to <2.1), and high (n=237, ≥2.1). Pregnancy status was determined using daily first-morning urine collection and spot urine clinic pregnancy tests at monthly visits. Chemical pregnancy loss was defined as positive hCG without clinical evidence of pregnancy (n=56), and clinical pregnancy loss as a loss following ultrasound confirmed pregnancy (n=133). Relative risk (RR) and 95% confidence intervals (CIs) for pregnancy loss were estimated using generalized linear models.

RESULTS: No association was identified between baseline CRP and pregnancy loss (RR 1.08, 95% CI 0.80, 1.45), whether chemical (RR 1.23, 95% CI 0.67, 2.24) or clinical loss (RR 1.02, 95% CI 0.71, 1.48), after adjustment for age, BMI, characteristics of the prior loss, and low dose aspirin treatment assignment.

CONCLUSIONS: We found no relationship between maternal serum CRP levels and pregnancy loss. Given the large sample size and the methods employed to account for potential bias due to the evaluation of inflammation on impacting pregnancy loss only in women who became pregnant while participating in the trial (within 6 months of trying while on study), these findings provide strong evidence that systemic inflammation may not affect pregnancy loss.

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INCORPORATION OF COMPREHENSIVE CHROMOSOME SCREENING (CCS) IN IVF CARE IS ASSOCIATED WITH FASTER RESUMPTION OF CARE AFTER FAILED EMBRYO TRANSFER. J. M. Franasiak, M. D. Werner, C. R. Juneau, K. H. Hong, K. A. Green, R. T. Scott. RMA, NJ, NJ.

OBJECTIVE: Time away from fertility treatment after a pregnancy loss can have a negative impact on overall success rates. Treatment paradigms

which minimize loss rates and decrease time to resumed treatment are thus optimal. This data seeks to determine if utilization of CCS impacts time to resumption of treatment after an embryo transfer fails to result in a delivery.

DESIGN: Retrospective cohort study at a single, academic center.

MATERIALS AND METHODS: All first fresh or frozen embryo transfer cycles from 2010 to 2014 were evaluated. All cycles which had an embryo transfer which did not result in a delivery were included for analysis. Time away from treatment was designated by calculating the number of days between the embryo transfer and the date of next treatment cycle start. Patients were compared overall and then analyzed depending upon whether CCS was part of their treatment strategy. Student t-test and chi square were utilized where appropriate.

RESULTS: During the study timeframe there were 1763 individual patients who met inclusion criteria. The average number of days away from treatment was 88.2 (9-700). There were 1504 patients who did not have CCS and 259 who did have CCS. Patient in the non-CCS group required a D&C in 10.8% of cases while those in the CCS group required a D&C in 7.0% of cases (p=0.106). The average time away from treatment for the group without CCS was 90.2±1.95 days and with CCS was 76.3±4.69 days (p<0.006).

CONCLUSIONS: Time away from fertility treatment when an embryo transfer does not result in a delivery can significantly impact overall success rates. Data about time away from treatment after pregnancy loss can be helpful in patient counseling and setting expectations. The overall average time to next treatment nearly 3 months. When CCS is incorporated into the treatment paradigm, the time away from treatment after a loss is decreased. It is possible that a priori knowledge of ploidy status allows for patients and their care team to process the implications of pregnancy loss more quickly and allows swifter return to care.

PRACTICE MANAGEMENT

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KNOWLEDGE ACQUISITION IN THE DIGITAL AGE: WHICH INFORMATION CHANNELS ARE ASSOCIATED WITH CHOOSING SINGLE EMBRYO TRANSFER? E. M. Munch,^a K. M. Summers,^a G. Ryan,^a J. D. Kapfhamer,^a B. Collura,^b G. D. Adamson.^c ^aReproductive Endocrinology and Infertility, University of Iowa Hospitals and Clinics, Iowa City, IA; ^bRESOLVE, McLean, VA; ^cPAMF Fertility Physicians of Northern California, Saratoga, CA.

OBJECTIVE: Patients receive information about IVF and elective single embryo transfer (eSET) from multiple sources. Our objective was to determine which information channels are most associated with the choice of eSET and other related treatments.

DESIGN: Descriptive analysis of online survey results from a cross-sectional sample of U.S. community women.

MATERIALS AND METHODS: An online survey, advertised through RESOLVE (the National Infertility Association) was conducted over 5 weeks in 2014. Interested participants were screened for gender and cycle eligibility and gave consent by acknowledging an online privacy statement. Inclusion criteria were age < 40 and the completion of at least one cycle of IVF with embryo transfer. The outcome of interest was elective single embryo transfer (eSET, defined as multiple embryos available for transfer but electing a single embryo transfer) versus multiple embryo transfer (MET) in 1st cycle. Information sources were grouped into 3 'channels': in-person (MD, nurse, embryologist), print (handout, pamphlet), or online (webpage, social media). Responses were analyzed using descriptive statistics, with X² used for comparison of proportions among groups.

RESULTS: Of 888 participants, 587 met age and cycle inclusion criteria. While 62% of participants used their smartphones to access the survey, most patients learned about IVF-related treatments from their IVF providers: 97% regarding numbers of embryos to transfer, 78% regarding maternal complications of multiple gestation, 78% regarding embryo morphology, 74% regarding fetal complications of multiple gestation, 63% regarding eSET, and 53% regarding PGD. Participants who underwent eSET and MET used the same number of information channels to select their IVF clinic. Those who underwent eSET, however, were more likely to have referenced printed (p=0.007) or online (p=0.012) sources about embryo transfer number. Participants who underwent eSET were also more likely to have been educated by in-person (p<0.001) or online (p=0.003) sources about eSET. The number of channels through which participants received information about

embryo transfer number or eSET was directly correlated with choosing eSET, with higher numbers of channels being associated with higher rates of eSET ($p < 0.001$).

CONCLUSIONS: In our digital age, information about IVF and embryo transfer practices is often acquired through multiple information channels. These data suggest that patients who receive more education and utilize more channels for information acquisition may be more likely to choose eSET. Clinics should consider offering and encouraging patients to access multiple information channels to encourage the use of eSET; this information should also be accessible on a smartphone browser.

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PHYSICIAN INFLUENCE AND IVF: HOW MUCH DO PATIENTS RELY ON PHYSICIAN OPINION WHEN CHOOSING ELECTIVE SINGLE EMBRYO TRANSFER? E. M. Munch,^a K. M. Summers,^a G. Ryan,^a J. D. Kapfhamer,^a B. Collura,^b G. D. Adamson.^c ^aReproductive Endocrinology and Infertility, University of Iowa Hospitals and Clinics, Iowa City, IA; ^bRESOLVE, McLean, VA; ^cPAMF Fertility Physicians of Northern California, Saratoga, CA.

OBJECTIVE: While some patients desire twins from IVF, most are interested in their physician's opinion regarding the optimal number of embryos to transfer. Our objective was to determine how physician influence relates to the likelihood of a patient undergoing elective single embryo transfer (eSET) or multifetal reduction.

DESIGN: Descriptive analysis of online survey results from a cross-sectional sample of U.S. community women.

MATERIALS AND METHODS: An online survey advertised through RESOLVE, the National Infertility Association, was conducted over 5 weeks in 2014. Interested respondents were screened for gender and cycle eligibility and gave consent by acknowledging an online privacy statement. Inclusion criteria for this study were age < 40 and the completion of at least one IVF cycle with embryo transfer. The outcomes of interest were elective single embryo transfer (eSET) versus multiple embryo transfer (MET) in 1st cycle, as well as attitudes related to multifetal reduction as queried on a Likert scale. Responses were analyzed using descriptive statistics, with X^2 used to compare proportions among groups.

RESULTS: Of 888 participants, 654 met age and cycle criteria. Compared to those receiving MET, participants who underwent eSET were more likely to report that the decision was made between her and her partner and less likely to report it was solely the doctor's decision ($p < 0.001$). There was no association between perceived physician opinion on number of embryos to transfer and whether a patient actually received MET vs eSET ($p = 0.402$). Forty-two percent of participants who underwent eSET stated the most important reason for doing so was potential health risks to offspring, while 23% stated the doctor's opinion was most important. Compared to those undergoing MET, participants who underwent eSET reported being more likely to consider selective reduction if ever recommended by their physician ($p = 0.001$).

CONCLUSIONS: Physician opinion may not be a highly critical factor when patients are deciding on eSET, as more study participants reported making this decision on their own and influenced mostly by risks to offspring. This suggests that efforts should be focused on educating patients on the risks of multiple gestations as a means of improving eSET rates and reducing the need to consider selective reduction.

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CLINICAL OUTCOMES FOR PATIENTS WHO FAILED IN THE FRESH SINGLE EMBRYO TRANSFER AND RECEIVED A SECOND ELECTIVE FROZEN SINGLE OR DOUBLE EMBRYO TRANSFER. P. A. Monteleone,^{a,b} J. Miorin,^c D. Rodrigues,^b A. Gomes,^b M. G. Fujii,^d r. mirisol,^b P. Petersen,^b S. P. Goncalves.^c ^aDisciplina de Ginecologia, Hospital das Clinicas, Universidade de Sao Paulo, Sao Paulo, Brazil; ^bMonteleone Centro de Reproducao Humana, Sao Paulo, Brazil; ^cClênica Monteleone, São Paulo, Brazil; ^dMonteleone Human Reproduction Center, Sao Paulo, Brazil; ^eCentro de Reproducao Humana Monteleone, Sao Paulo, Brazil.

OBJECTIVE: Patients that fails in a fresh single embryo transfer (SET) cycles tend to ask for two embryos transfer in a second attempt, aiming to increase the success chance. The objective of this study was to evaluate the pregnancy rates in good prognosis patients who failed in fresh elective-SET and had a second cycle with elective double frozen embryo transfer (eD-FET) compared with elective single frozen embryo transfer (eSFET).

DESIGN: Retrospective observational study.

MATERIALS AND METHODS: This study evaluated 123 ICSI cycles using standard conventional protocol, at a private Assisted Reproduction Center between 2007 and 2014. Good prognosis patients were designated for elective SET in a fresh cycle and pregnancy failed. Patients underwent a second frozen embryo transfer: eDFET ($n = 84$) and eSFET ($n = 39$). It was defined as eSET and eDET patients who transferred one or two top quality embryos, respectively, and had at least two spared top quality embryos cryopreserved.

RESULTS: Patients demographics for eDFET and eSFET were: age (34.0 ± 3.1 x 34.6 ± 2.5 ; $p = 0.330$), basal-FSH (7.1 ± 10.6 x 5.7 ± 1.9 ; $p = 0.467$), FSH dose administered (1708.2 ± 238.9 x 1682.8 ± 246.1 ; $p = 0.595$), oocytes collected (10.7 ± 5.3 x 14.4 ± 6.4 ; $p = 0.001$) and number of embryos cryopreserved (5.6 ± 3.0 x 7.6 ± 4.5 ; $p = 0.01$). Patients who received eDFET presented lower implantation (16.1%) than eSFET (35.9%; $p = 0.007$) but pregnancy rates were similar (eDFET: 34.6% x eSFET: 41.0%; $p = 0.492$). Patients at eSFET had 1 monozygotic twin pregnancy (6.60%) and eDFET presented 25% of multiple pregnancy ($p = 0.126$). The multiple logistic linear regression demonstrated that transfer of two embryos (eDFET) did not influence the pregnancy rate (OR: 0.87, $p = 0.738$), adjusted for patients age and number of oocytes collected.

CONCLUSIONS: Pregnancy rates after eDFET or eSFET in patients that failed at fresh-eSET are similar, while 25% of multiple pregnancy is observed only in eDFET. Hence, patients with good prognosis that failed in the first fresh eSET do not have advantages if receive eDFET in a second cycle compared with eSFET.

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SALARY TRENDS OF REPRODUCTIVE LABORATORY PROFESSIONALS 2001-2014 AND COMPARISON TO RELEVANT BENCHMARKS. T. Chang,^a C. Chang,^b M. A. Israel,^c Y. Su.^d ^aObstetrics and Gynecology, University of Texas Health Science Center, San Antonio, TX; ^bReproductive Biology Associates, Atlanta, GA; ^cProgyny, Menlo Park, CA; ^dResearch Consultant, San Antonio, TX.

OBJECTIVE: To investigate trends in salary and status among reproductive lab professionals in the United States.

DESIGN: Retrospective analysis of Society of Reproductive Biologists & Technologists Salary Survey data, and comparable publications and benchmarks.

MATERIALS AND METHODS: SRBT biennial survey data 2001-2014 were analyzed to determine longitudinal trends of salary among reproductive lab personnel. Patterns of salary changes in various lab positions, clinic settings, and gender, workload and off-site lab directing were analyzed. In addition, salary data were compared with national average earnings data from U.S. Bureau of Labor Statistics and two other clinical lab wage surveys.

RESULTS: A total of 1,436 responses were included in this study. Overall, salaries of reproductive lab professionals have steadily increased, 2.8-8.8% annually, better than the national average of 2.2-2.4% for college/advanced degree workers during the same period. The actual earnings of reproductive lab staff were higher than the national average of BA/BS/advanced degrees (Labor Statistics data) and most clinical lab science specialties except pathologists' assistants (PA) (two other surveys). Director salary increases trended slightly higher to others with advanced degrees nationwide (3.2% vs. 2.3% during 2001-2014, 7.9% vs. 2.1% in 2014), and non-director staff categories saw faster and more significant salary growth (2.3-8.8% vs. 2.2-2.3% nationwide college/advanced degrees during 2001-2014, and -0.6-23.1% vs. 2.1-3.1% in 2014). Lab staff serving a dual embryologist/andrologist role showed the fastest pace of increase, which may reflect the current demand of experienced embryologists. We observed gender-related differences in compensation, with females receiving 10-18% lower salaries in various categories in 2014. This gender gap is similar to other clinical lab science specialties and better than the gap in college/advanced degree workers nationwide. Female director and supervisor salaries have increased faster than their male counterparts in the past decade. The most common benefits received were health/dental insurance, paid time-off, retirement plan, and matching retirement contributions. The average lab staff member processed 114 fresh IVF cycles/year, and off-site directors earned 20% of their total compensation