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is underestimated in our fertility patients. A cycle in consultation with their doctor. 82% would have preferred to have the option to start a treatment guidelines if they have an upcoming cycle cancelled (p < 0.001). Lower STAI scores were noted at the pre-retrieval survey compared to baseline (p = 0.039). The results were unchanged when controlling for a history of anxiety or history of prior IVF treatment.

CONCLUSIONS: The use of a web-based application to support medical practice did not appear to have much impact on quality of life scores and anxiety measures during IVF. However, when examining the CART score in particular, there was a significant difference in CART scores in the application arm compared to the control arm, which suggests the application may have a positive impact in allaying patient concerns during the IVF process. Medication management during IVF is particularly anxiety-provoking for patients. Patient tools that can improve this component of the IVF experience warrant further study.

University of Michigan Department of Obstetrics & Gynecology

SUPPORT: Michigan Translational Research and Commercialization Program (MTRAC)

O-150 10:55 AM Monday, October 19, 2020

THE EMOTIONAL IMPACT OF THE ASRM GUIDELINES ON FERTILITY PATIENTS DURING THE COVID-19 PANDEMIC. Jenna M. Turcic, M.D.,1 Alex Robles, M.D.,2 Daniel Hertz, M.D.,2 Mary D’Alton, M.D.,3 Eric J. Forman, M.D.,4 Zev Williams, M.D., Ph.D.5 Columbia University Fertility Center, New York, NY;2 Jackson Memorial Hospital, Miami, FL;1 Columbia University Medical Center, New York, NY.

OBJECTIVE: To survey fertility patients’ agreement with ASRM recommendations during the COVID-19 pandemic and the emotional impact on them.

DESIGN: An online survey was sent to current fertility patients at a New York City academic fertility practice at the epicenter of the COVID-19 pandemic.

MATERIALS AND METHODS: Patient agreement with the ASRM recommendations during the COVID-19 pandemic and the emotional impact rated on a Likert scale. Ordinal data such as responses rated on a Likert scale were analyzed using Mann-Whitney Wilcoxon testing and responses were compared using Fisher exact or chi-square test as appropriate, with significance at <p<0.05.

RESULTS: A total of 518 patients completed the survey for a response rate of 17%. Fifty percent of respondents had a cycle canceled due to the COVID-19 pandemic. Of those who had a cycle cancelled, 85% of respondents found it to be moderately to extremely upsetting with 22% rating it to be equivalent to the loss of a child. There was no difference on the emotional impact based on the type of cycle cancelled. Fifty-five percent of patients agreed that diagnosing conditions such as hysterosalpingograms should be cancelled while 36% of patients agreed all fertility cycles should be cancelled (22% unsure, 43% disagreed). Patients were slightly more likely to agree with the ASRM guidelines if they have an upcoming cycle cancelled (p = 0.041). Of all respondents 82% would have preferred to have the option to start a treatment cycle consultation using a video call with a doctor. They were stratified into World Health Organization BMI categories: underweight (BMI <18.5), normal weight (BMI 18.5-24.9), overweight (BMI 25-29.9), or obesity class I (BMI >30-34.9), II (BMI>35-39.9), or III (BMI>40). PGT-A was performed in a single external laboratory by array comparative genomic hybridization (aCGH) (2016-2017) or next generation sequencing (NGS) (2018-2019, during which mosaicism was additionally reported).

The associations between BMI and rates of euploidy and mosaicism, including low level (LL), high level (HL), whole chromosome, and segmental mosaicism, were determined using forward stepwise multivariable Poisson regressions, controlling a priori for age and AMH, and retaining other patient- and cycle-specific variables (e.g., diagnosis) that changed the effect estimates by >10%. For the regression analysis evaluating rate of euploidy, LL mosaic embryos were re-classified as euploid. Regression analyses evaluating rates of mosaicism used data from 2018-2019 only. Relative risks with 95% confidence intervals (95% CI) were determined using normal weight as the referent value.

RESULTS: Six-hundred one cycles resulted in 2,992 diagnosed embryos available for analysis. Most patients were of normal weight (N=321) or overweight (N=144), or had class I obesity (N=30). Overall, 21% of patients in the cohort had obesity (BMI >30). The average patient age was 36.0 years, and age and BMI were positively correlated (r=0.2). There was no difference in overall euploidy or mosaicism rate stratified by BMI. Compared with normal weight, underweight (RR: 4.1 [1.5-11.3]), overweight (1.6 [1.1-2.5]), and obesity (1.6 [1.1-2.4]) were all associated with significantly higher rates of LL mosaicism (6.3% vs. 20.8%, 10.0%, and 9.1%, respectively). Compared with normal BMI, overweight was associated with increased rates of HL mosaicism compared with normal BMI, and overweight was associated with decreased rates of HL and whole chromosome mosaicism. Though a large proportion of our patient cohort had obesity, further research is needed to clarify the impact of BMI on embryo mosaicism.

O-152 2:05 PM Monday, October 19, 2020

MALE VITAMIN D STATUS AND MALE FACTOR INFERTILITY. Nicole Banks, M.D.,1 Fangbai Sun, MPH,2 Stephen A. Krawetz, PhD,3 Robert M. Coward, MD,4 Puneet Masson, MD,5 JAMES F. SMIH, MD, MS,6 J. C. Trussell, MD,7 Nanette Santoro, MD,8 Heping Zhang, PhD,9 J. C. Trussell, MD,7 Nanette Santoro, MD,8 Heping Zhang, PhD,9 Anne Z. Steiner, MD, MPH,9 VCU Health, Richmond, VA;4 Yale University School of Public Health, New Haven, CT;7 Wayne State University School of Medicine, Detroit, MI;5 University of North Carolina, Chapel Hill, NC;4 Penn Medicine, Philadelphia, PA;4 University of California, San Francisco, San Francisco, CA;5 Upstate University Hospital, Syracuse, NY;7 University of Colorado School of Medicine, Aurora, CO;4 Duke University, Durham, NC.

OBJECTIVE: To determine the association between 25-hydroxyvitamin D (25(OH)D) levels in the male partner and fertility outcomes in couples with mild male factor infertility.

DESIGN: Secondary analysis of a randomized, controlled trial.

MATERIALS AND METHODS: Males (n=154) with sperm concentration ≤15 M/ml, motility ≤ 40%, or normal morphology ≤ 4% were eligible. Female partners were ovulatory, ≤ 40 years old, and had documented tubal patency. Men were randomized to a vitamin formulation intervention or a placebo 2000 IU/d of vitamin D3, orally, in two daily divided doses. Patients were stratified into four BMI categories: underweight (BMI<18.5), normal weight (BMI 18.5-24.9), overweight (BMI 25-29.9), or obesity class I (BMI>30-34.9), II (BMI>35-39.9), or III (BMI>40). PGT-A was performed in a single external laboratory by array comparative genomic hybridization (aCGH) (2016-2017) or next generation sequencing (NGS) (2018-2019, during which mosaicism was additionally reported).

The associations between BMI and rates of euploidy and mosaicism, including low level (LL), high level (HL), whole chromosome, and segmental mosaicism, were determined using forward stepwise multivariable Poisson regressions, controlling a priori for age and AMH, and retaining other patient- and cycle-specific variables (e.g., diagnosis) that changed the effect estimates by >10%. For the regression analysis evaluating rate of euploidy, LL mosaic embryos were re-classified as euploid. Regression analyses evaluating rates of mosaicism used data from 2018-2019 only. Relative risks with 95% confidence intervals (95% CI) were determined using normal weight as the referent value.

RESULTS: Six-hundred one cycles resulted in 2,992 diagnosed embryos available for analysis. Most patients were of normal weight (N=321) or overweight (N=144), or had class I obesity (N=30). Overall, 21% of patients in the cohort had obesity (BMI >30). The average patient age was 36.0 years, and age and BMI were positively correlated (r=0.2). There was no difference in overall euploidy or mosaicism rate stratified by BMI. Compared with normal weight, underweight (RR: 4.1 [1.5-11.3]), overweight (1.6 [1.1-2.5]), and obesity (1.6 [1.1-2.4]) were all associated with significantly higher rates of LL mosaicism (6.3% vs. 20.8%, 10.0%, and 9.1%, respectively). Compared with normal BMI, overweight was associated with increased rates of HL mosaicism compared with normal BMI, and overweight was associated with decreased rates of HL and whole chromosome mosaicism. Though a large proportion of our patient cohort had obesity, further research is needed to clarify the impact of BMI on embryo mosaicism.

NUTRITION AND LIFESTYLE

O-151 1:50 PM Monday, October 19, 2020

DOES BMI AFFECT EMBRYONIC MOSAICISM? Baruch Abitboul, M.D.,1 Robyn A. Frankel, M.D.,2 Amber Gamma, MS, CGC,3 Randi H. Goldman, M.D.4 Northwell Health Fertility, North Shore University Hospital/Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, Manhasset, NY;2 Zucker School of Medicine at Hofstra/Northwell, Manhasset, NY; Northwell Health Division of Medical Genetics, Great Neck, NY.

OBJECTIVE: To examine the association between body mass index (BMI) and embryonic aneuploidy and mosaicism by trophoectoderm biopsy and preimplantation genetic testing for aneuploidy (PGT-A).

DESIGN: Retrospective cohort study in an academic fertility center.

MATERIALS AND METHODS: Patients’ first fresh autologous stimulation cycles wherein all embryos were biopsied for PGT-A analysis between 2016-2019 were reviewed. BMI (kg/m²) was recorded prior to cycle start and patients were stratified into World Health Organization BMI categories: underweight (BMI<18.5), normal weight (BMI 18.5-24.9), overweight (BMI 25-29.9), or obesity class I (BMI>30-34.9), II (BMI>35-39.9), or III (BMI>40).