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observations in couples with no euploid blastocysts, older male partner age (≥40 years) was associated with decreased blastulation (p<0.01), but did not affect fertilization rate (p=0.66). Both fertilization rate (85.0%) and blastulation rate (55.1%) were higher in patients who went on to develop a euploid blastocyst than in patients who did not.

Significantly lower fertilization rates (p<0.01) and blastulation rates (p<0.01) were noted among patients failing to generate a euploid embryo when compared with those who ultimately produced at least one euploid embryo. These findings held true for both younger (<40) and older (≥40) male partners.

CONCLUSIONS: In couples who fail to generate a euploid embryo, increasing paternal age negatively affects the rate of blastocyst formation but does not impact fertilization rate when male partner age of 40 is used as a cutoff. When compared to couples who generated at least one euploid blastocyst, couples who failed to develop a euploid embryo had lower fertilization rates and blastulation rates across all male partner age groups. These findings can be used to guide patient management and set expectations, particularly in the setting of an older male partner.

O-143 10:40 AM Monday, October 19, 2020

SPERM RETRIEVAL RATES AND OUTCOMES IN MEN WITH A HISTORY OF MALIGNANCY.

Nahid Punjani, MD MPH,[1] Ryan Flannigan, MD,[2] Kathleen Hart, BSN RN MA,[1] Peter N. Schlegel, M.D.[1] [1]Weill Cornell Medicine, New York Presbyterian Hospital, New York, NY; [2]University of British Columbia, Vancouver, BC, Canada.

OBJECTIVE: To assess sperm retrieval rates and outcomes from a large series of cancer patients undergoing microsurgical testicular sperm extraction (mTESE).

DESIGN: Retrospective study of prospectively collected data.

MATERIALS AND METHODS: mTESE procedures performed by a high-volume surgeon at Weill Cornell between 1995 and 2020 were reviewed. Men with history of malignancy were included. Demographic data included male and partner age. Testicular size was recorded. Sperm retrieval and pregnancy were classified dichotomously, and fertilization rate was evaluated continuously. Treatment including chemotherapy and/or radiation was documented. Adjusted logistic regression models were completed to examine predictors of sperm retrieval.

RESULTS: A total of 177 men with malignancy at the time of mTESE procedure were included. The median male age was 35 (IQR 32-40). Median partner age was 32 (IQR 29-36). Mean FSH levels was 24.7 ± 13.8 IU/mL. A total of 121 men (68.4%) had history of only chemotherapy and 55 men (31.1%) had history of only radiation, 46 men (26.0%) had both and 47 (26.6%) had neither. Sperm retrieval occurred in 86 of 177 men (48.59%). Fertilization rate per injected oocyte was 2.87 ± 4.46. Pregnancy occurred in 62 of 175 men (Table 1), for a total of 35.0%. In the malignancy group, only testis size was marginally associated with sperm retrieval (OR 1.11, 95%CI 1.03-1.19). Testis size was marginally associated with pregnancy in those with malignancy history and with chemotherapy (OR 1.09, 95%CI 1.01-1.18 and OR 1.12, 95%CI 1.02-1.24, respectively).

CONCLUSIONS: Despite a history of malignancy, chemotherapy or radiation therapy, sperm retrieval rates with mTESE are near 50%, and clinical pregnancies occur among 34% of couples. Only testis size had limited associations with sperm retrieval and pregnancy, therefore, limited pre-operative factors exist to determine who will have successful retrievals.

O-144 10:55 AM Monday, October 19, 2020

TELEHEALTH FOR MALE-INFERTILITY IS FEASIBLE AND SAVES PATIENTS' TIME AND MONEY.

Alex Zhu, DO,[1] Juan J. Andino, MD, MBA,[1] Zoey Chopra, BA,[2] Stephanie Daignault-Newton, MS,[1] Chad Ellimoottil, MD, MS,[1] James M. Dupree, IV, MD, MPH.[1] [1]Michigan Medicine, Ann Arbor, MI; [2]University of Michigan, Ann Arbor, MI.

OBJECTIVE: There has been a rapid expansion of video visits, a form of telehealth, with the COVID-19 pandemic; however, little is known about the feasibility or benefits of video visits for patients seeking male infertility care. Herein we summarize a single institution's experience using video visits to manage infertility prior to the COVID-19 pandemic. Specifically, we evaluate the number of patients engaging in video visits for the first time, and the patient resources saved by forgoing in-person appointments.

DESIGN: Retrospective case series of patients undergoing video visits for follow-up of male-infertility care.

MATERIALS AND METHODS: We identified all video visits performed at our institution between August 21, 2017 and March 17, 2020. We included men seen for male infertility by a single urologist. We used chart review to collect patient demographic information including age, primary language, race, and occupation. Patients were identified as blue collar versus white collar workers with respect to their engagement in manual labor. We determined whether patients had a prior video visit completed at our institution. We used Google Maps™ to calculate round-trip driving distance and time saved based on patients' city of residence. Driving costs saved were calculated by using American Automobile Association's cost estimate of $0.59/mile. Finally, Glassdoor.com salaries were used to estimate wages lost if taking a half or full day off to attend an in-person clinic visit.

RESULTS: 70 male infertility video visits were completed by 56 patients. Median age of patients was 36 years old (range 20-56), 96% identified preferred language as English, and 78% self-identified as white. There were a total of 49 unique occupations among the 56 men. 32% were blue collar workers and 68% were white collar workers. For 55 of 56 patients, this study period represented their first use of video visits in our health system.

Video visits allowed patients to save a median of 80 miles (interquartile range 46-244) and 97 minutes (IQR 64-250) of travel per visit. This resulted in a median of $47 (IQR 27–144) of driving costs saved per visit. By not having to miss a half or full day of work, patients potentially avoided a median of $102 (IQR $69 – 133) to $205 (IQR $137 – 266) in lost wages, respectively. Total median savings per patient ranged from $149 (half day off) to $252 (full day off). Median salary of our cohort was $51,331.

In total, 70 video visits saved 56 patients 11,646 miles and 12,070 minutes in travel. Total estimated savings to patients was $14,539 (half day off) to $22,206 (full day off).

TABLE 1. Clinical Outcomes by Cancer Treatment

	Cancer (n=177)	Chemotherapy (n=121)	Radiation (n=55)	Both (n=46)
Sperm Retrieved (%)	86 (48.6%)	52 (43.0%)	14 (25.5%)	9 (19.6%)
Pregnancy (%)	62 (35.0%)	38 (31.7%)	9 (16.4%)	6 (13.0%)
Sperm Retrieval (OR, 95%CI)				
Male Age	1.04 (0.99-1.10)	1.02 (0.95-1.09)	1.00 (0.88-1.14)	0.98 (0.85-1.14)
Male FSH	1.01 (0.98-1.03)	0.99 (0.96-1.03)	1.02 (0.97-1.07)	0.97 (0.90-1.05)
Testis Size	**1.11 (1.03-1.19)**	1.08 (0.99-1.18)	1.14 (0.99-1.31)	1.07 (0.90-1.26)
Pregnancy (OR, 95%CI)				
Male Age	**1.08 (1.00-1.16)**	1.05 (0.95-1.16)	0.99 (0.79-1.23)	1.03 (0.82-1.29)
Female Age	0.92 (0.83-1.02)	0.95 (0.84-1.07)	1.06 (0.80-1.39)	1.04 (0.78-1.37)
Male FSH	1.02 (0.99-1.06)	1.01 (0.97-1.05)	1.02 (0.96-1.08)	0.93 (0.82-1.05)
Testis Size	**1.09 (1.01-1.18)**	**1.12 (1.02-1.24)**	1.06 (0.89-1.26)	1.00 (0.81-1.23)

CONCLUSIONS: Video visits are a feasible option for follow-up infertility care and are a patient-centric modality that reduces travel and financial burdens. 98% of patients were first-time video visit users suggesting that men are amenable to using video visits for male infertility care. Calculated cost savings may have underestimated total expenses as we did not account for meals, parking fees and other expenses incurred by traveling for an in-person appointment.

MENTAL HEALTH

O-145 9:40 AM Monday, October 19, 2020

PARENT-CHILD RELATIONSHIP QUALITY AND CHILD PSYCHOLOGICAL ADJUSTMENT IN EGG DONATION FAMILIES: CHILDREN'S PERSPECTIVES AT AGE 5.

Susan Imrie, PhD,[■] Joanna Lysons, MSc,[2] Vasanti Jadva, PhD,[2] Susan Golombok, PhD[2] [1]University of Cambridge, Cambridge, United Kingdom; [2]■ ■ ■.

OBJECTIVE: The first phase of this longitudinal study indicated that subtle differences may exist in mother-infant relationship quality between egg donation and IVF families, with egg donation mothers and infants showing less optimal relationship quality. The current study examined parent-child relationship quality and child psychological adjustment from the child's perspective in early childhood.

DESIGN: Forty-nine children born through egg donation ($M = 66.96$ months, $SD = 3.64$) and a comparison group of 43 IVF children conceived using the parents' own gametes ($M = 66.79$ months, $SD = 3.80$) were compared on a standardized assessment of children's perceptions of their families and themselves. Families were recruited through UK fertility clinics at the first phase of the study, and all were heterosexual two-parent families.

MATERIALS AND METHODS: Families were visited at home by trained researchers. Data collection with children was carried out in a separate room to parents. Children were administered the Berkeley Puppet Interview (BPI; Ablow & Measelle, 1993), an interviewing and coding method used to assess young children's perceptions of their family environment and themselves. The BPI was used to assess children's perceptions of their relationship with their mother and father separately on two scales: warmth/enjoyment, and anger/hostility. The measure was also used to assess children's self-perceptions of their levels of depression, anxiety, and strengths/competencies. Outcomes were examined between family types using independent samples t-tests.

RESULTS: Children conceived through egg donation rated their relationship with their mother as higher in warmth/enjoyment than did children conceived through IVF ($t(62.29) = -2.42$, $p = .02$). This difference was of a medium effect size $d = .55$. No differences were found between groups for children's ratings of their mother's anger/hostility. No differences were found between groups in children's perceptions of their relationship with their father on either the warmth/enjoyment or anger/hostility scale. Neither were there group differences in children's perceptions of their own levels of depression, anxiety or strengths/competencies.

CONCLUSIONS: The findings suggest that children in egg donation families view their family relationships and themselves in a largely similar way to children who are genetically related to both their parents. Where a difference was found, this indicated more positive mother-child relationships in egg donation families, as viewed by children themselves.

O-146 9:55 AM Monday, October 19, 2020

SLEEP AND PSYCHOLOGICAL WELL-BEING: IS OBSTRUCTIVE SLEEP APNEA ASSOCIATED WITH DEPRESSION AND ANXIETY IN WOMEN WITH POLY-CYSTIC OVARY SYNDROME?

Xiaojie P. Zhou, MD,[1] Eleni Greenwood Jaswa, MD, MSc,[2] Nikolaus J. Lenhart, BS,[1] Jamie Corley, BA,[1] Marcelle I. Cedars, MD,[1] Heather G. Huddleston, MD.[2] [1]University of California San Francisco, San Francisco, CA; [2]University of California, San Francisco School of Medicine, San Francisco, CA.

OBJECTIVE: Polycystic ovary syndrome (PCOS) is a common yet complex endocrine disorder in which affected women experience diverse comorbidities, including higher rates of depression and anxiety. Women with PCOS have also been shown to be at risk for obstructive sleep apnea (OSA). In the general population, OSA has been linked to depression and anxiety, with evidence to suggest that treatment of OSA has positive psychological effects. However, relationships between OSA and depression/anxiety have not been well-defined in PCOS. The purpose of this study was to determine whether being high-risk for OSA is associated with elevated depression and anxiety symptoms in women with PCOS.

DESIGN: Cross-sectional study.

MATERIALS AND METHODS: All patients seen at a university-based clinic between 2017-2020 with a confirmed PCOS diagnosis by the Rotterdam criteria were included. Participants completed validated questionnaires assessing for OSA (Berlin), depression (Patient Health Questionnaire-9, PHQ-9), and anxiety symptoms (Generalized Anxiety Disorder-7, GAD-7). The Berlin questionnaire consists of 3 categories related to OSA risk. A positive score in 2 or 3 categories is considered high-risk for OSA. Multivariate logistic regression analyses were used to determine the odds of moderate or severe symptoms of depression and anxiety defined by PHQ-9 score ≥ 10 and GAD-7 score ≥ 10 in the high-risk versus low-risk OSA groups. The models were adjusted for age, body mass index (BMI), free testosterone level and insulin resistance as measured by the homeostatic model assessment of insulin resistance (HOMA-IR) score.

RESULTS: A total of 196 women with PCOS were included, of which 37.8% screened high-risk for OSA. The mean age of all participants was 28.1 years (SD 6.1) and mean BMI was 31.0 kg/m^2 (SD 9.1). The high-risk OSA group had a higher mean PHQ-9 score as compared to the low-risk OSA group (12.0 vs. 8.3, p<0.0001), as well as a higher mean GAD-7 score (8.9 vs. 6.1, p=0.0003). Women in the high-risk OSA group had increased odds of moderate or severe depression (OR 3.01, 95% CI 1.66-5.49, p<0.0001) and anxiety (OR 2.81, 95% CI 1.49-5.29, p=0.001). These associations were only slightly attenuated in adjusted models: aOR for moderate or severe depression was 2.489 (95% CI 1.10-5.60, p=0.03) and aOR for moderate or severe anxiety was 2.49 (95% CI 1.05-5.92, p=0.04).

CONCLUSIONS: Among those with PCOS, women at high-risk of OSA experienced elevated levels of depression and anxiety symptoms compared to those at low risk for OSA, independent of the effects of age, BMI, hyperandrogenism and insulin resistance. The complex comorbidities of OSA and psychological conditions in women with PCOS allow for multiple targets of intervention. Routine OSA screening in women with PCOS should be undertaken, particularly in the setting of existing depression and anxiety. Referral for OSA diagnosis and treatment may have added psychological benefits in this population.

O-147 10:10 AM Monday, October 19, 2020

LONG-TERM PSYCHIATRIC ILLNESS IN WOMEN WITH PRIMARY INFERTILITY.

Alessandra J. Ainsworth, MD,[1] Emily N. Sadecki, BA,[2] Lauren Kendall Rauchfuss, MD,[1] Amy Weaver, MS,[3] Yulian Zhao, Ph.D.,[4] Elizabeth A. Stewart, MD.[5] [1]Mayo Clinic, Rochester, MN; [2]Mayo Clinic College of Medicine and Science, Rochester, MN; [3]Mayo Clinic Division of Biomedical Statistics and Information, Rochester, MN; [4]Department of Obstetrics and Gynecology, Mayo Clinic, Rochester, MN; [5]Mayo Clinic Department of OB/GYN, Reproductive Endocrinology and Infertility, Rochester, MN.

OBJECTIVE: To evaluate the long-term risk of de novo psychiatric illness in women with a history of primary infertility compared to age-matched referent women.

DESIGN: Population-based retrospective cohort study.

MATERIALS AND METHODS: A random sample of 300 female residents of Olmsted County, MN, diagnosed with primary infertility from 1980-1999 were identified through the Rochester Epidemiology Project (REP) records-linkage system. Medical records were manually reviewed to confirm primary infertility diagnosis and date of diagnosis became the index date. Each woman was 1:1 age-matched (± 1 y) to a referent woman residing in the county who had not been diagnosed with primary infertility or undergone hysterectomy prior to the index date. Diagnosis codes for depression, anxiety and bipolar disorder were electronically obtained for each pair using standard REP protocols. Diagnoses made prior to or up to 3 months after the index date were considered prevalent disorders. Each of the psychiatric disorders was evaluated separately; women with a prevalent disorder at index date were excluded from the estimation of risk for the other newly diagnosed disorders (de novo). Cox proportional hazards models were fit to estimate the hazard ratio (HR) and 95% confidence interval to compare the long-term risk between infertility cases and