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DOSE DEPENDENT INFLUENCE OF OVULATION INHIBITOR, CHLORMADINONE ACETATE OR CETRORELIX ON OOCYTE MATURATION IN NORMAL OVARIAN RESERVE PATIENTS: A RETROSPECTIVE STUDY WITH POISSON REGRESSION ANALYSIS. Mika Handa, M.D.1,2, Tsuyoshi Takeuchi, M.D., Ph.D.3, Sumika Kagawuchi, Sho Komukai, Ph.D.4, Tatsuya Miyake, M.D.1, Yasuhiro Ohara, M.D.1, Masakazu Doshida, M.D., Ph.D.3,4, Takumi Takeuchi, M.D., Ph.D.3, Hidehiko Matsubayashi, M.D., Ph.D.4,1, Tomomoto Ishikawa, M.D., Ph.D.4,1, Tadashi Kimura, M.D., Ph.D.1,1 Osaka University Graduate School of Medicine, Osaka, Japan; 2Osaka University Graduate School of Medicine; 3Reproduction Clinic Osaka, Osaka, Japan; 4Reproduction Clinic Tokyo, Tokyo, Japan.

OBJECTIVE: During controlled ovarian stimulation cycles, ovulation inhibitors play the pivotal role of suppressing a premature LH surge, however their influence on oocyte maturation has remained unclear. We incrementally evaluated the dose-dependent influence of cetrorelix, GnRH antagonist (GnRH-ant) which has been traditionally used, or chlormadinone acetate (CMA), an oral progesterin which is used as an alternative to GnRH analog in the progestin-primed stimulation (PPOS), on oocyte maturation rate in patients with normal ovarian reserve.

MATERIALS AND METHODS: This retrospective cohort study was performed in a reproduction center between March 2018 and October 2020 which included 977 patients with normal ovarian reserve undergoing PPOS with CMA (n = 299), or GnRH-ant with cetrorelix (n = 608) in their first IVF cycle. The inclusion criteria were patients aged <40 years and AMH >= 1.1 mg/mL, with conventional autologous oocyte retrieval with freeze-all strategy. In PPOS protocol, CMA 2mg/day was co-administered with gonadotropin from spontaneous menstrual cycle day 3-5 to the day before trigger. The dosage of CMA was increased to the maximum dose of 8mg/day, according to the value of serum LH. In GnRH-ant protocol, cetrorelix at 0.25 mg/day every other day was used. Menopausal ovarian aging was defined as 50+.

RESULTS: Both groups were comparable for demographic profile. There was no significant difference in LBR (13.4% vs 14.3%; p = 0.99), CPR (15% vs 16%; p = 0.762) and miscarriage rate (12.5% vs 11.1%; p = 0.99) between the two groups. There were significantly lower dosages (3415 ± 909.4 IU vs 3973.1 ± 582.3 IU; p = 0.008) and 1.18 (1.00-1.35) with GnRH-ant (p = 0.02). The aRR of maturation rate was 1.00 (1.00-1.01) with GnRH-ant (p = 0.16). The unadjusted relative risk of fertilization was 1.00 (1.00-1.01) with PPOS (p = 0.08) and 1.18 (1.00-1.35) with GnRH-ant (p = 0.02). The aRR of fertilization rate was 1.00 (0.99-1.00) with PPOS (p = 0.70) and 1.00 (0.99-1.01) with GnRH-ant (p = 0.16). The aRR of fertilization rate was 1.01 (1.00-1.02) with PPOS (p = 0.22) and 1.00 (1.00-1.01) with GnRH-ant (p = 0.50).

CONCLUSIONS: In this population, no dose-dependent influence of CMA or cetrorelix on either oocyte maturation or fertilization rate in normal ovarian reserve patients was observed.

IMPACT STATEMENT: Routine use of GH in poor ovarian response patients is not recommended. Need for larger studies addressing cost effectiveness is urged.

SUPPORT: none.

O-65 11:15 AM Monday, October 24, 2022
OUTCOMES OF DONOR OOCYTE RETRIEVALS FOR RECIPIENT IN VITRO FERTILIZATION (IVF) PATIENTS ARE UNAFFECTED BY COVID-19 VACCINATION. Said Daneshmand, M.D.1, Kevin S. Richter, Ph.D.2, Reeanne Medrud, B.S.1, Katie Diaz, B.S.1, Jazmin Lara Rio, B.S.1, Diane M. Tober, D.PHIL., M.A.1, Shannon Kokjohn, MSc1 1San Diego Fertility Center, San Diego, CA; 2Fertility Science Consulting, Silver Spring, MD; 3UCSF, Tuscaloosa, AL.

OBJECTIVE: To evaluate evidence for any potential adverse effects of COVID-19 vaccination associated with oocyte donation for IVF.

MATERIALS AND METHODS: Records of all non-directed oocyte donors undergoing multiple retrieval cycles for recipient IVF patients were collected from a single fertility center from February 2017 through March 2022, including donation cycles both before and after COVID-19 vaccination, were reviewed retrospectively. For each oocyte donor, outcomes were averaged for all donations prior to any COVID-19 vaccination, and separately for all donations after receiving one or more COVID-19 vaccinations.

RESULTS: Thirty-two subjects underwent multiple donation cycles, including oocyte aspirations both before and after receiving at least one Covid-19 vaccination. The duration of time between donors’ most recent COVID-19 vaccination and subsequent oocyte aspiration ranged from 2 weeks to 11 months (mean=3.9 months, SD=2.8, median=3). There were no significant outcome differences between pre-COVA and post-COVA oocyte aspirations in any of the treatment outcomes evaluated. Numbers of oocytes retrieved, matured, fertilized, and developing to the blastocyst stage were all as high after COVID-19 vaccination as before.

CONCLUSIONS: The results of this study using individual oocyte donors as their own controls to evaluate any potential adverse effects of COVID-19 vaccination on ovarian hyperstimulation and oocyte retrieval for donation to recipient IVF patients suggest that COVID-19 vaccination does not interfere with treatment response or outcome.
OUTCOME OF RANDOM-START OVARIAN STIMULATION IN CASE OF EMERGENCY FERTILITY PRESERVATION DEPENDING ON THE DAY OF PROTOCOL ONSET.

Sarah Amari, Associate Professor,1 Marouen Braham, Associate Professor,1 Siwar Jouou, Medical degree,2 Sana Chtourou, Assistant Professor,1 Linda Debbabi, Medical Doctor,3 Khadija Kacem Berjeb, Associate Professor,1 Anis anis Padhalouni, professor,1 Notha Chakroun, Professor,2 Fethi Zhioua, Dr 1 Gynecology, Obstetric and Reproductive Medicine Department. Aziza Othmana University Hospital, Tunis, Tunisia; 5Aziza Othmana University Hospital, Reproductive Medicine and Cytogenetic Laboratory, Tunis, Tunisia;6Aziza Othmana University hospital.

OBJECTIVE: To analyze and compare the outcome of a Random Start Controlled Ovarian Stimulation (COS) either at the early, late follicular or luteal phase of the cycle in emergency fertility preservation (FP) patients in the Department of Obstetrics, Gynecology and Reproductive Medicine of the Aziza Othmana Hospital in Tunis.

MATERIALS AND METHODS: We conducted a prospective, monocentric study including 301 FP referral patients from January 2015 to September 2020 in the Reproductive Medicine Department of the Aziza Othmana Hospital.

301 out of the initial 531 referral FP patients underwent emergency random-start COS. Depending on the day of the menstrual cycle on which COS was initiated, patients were subdivided into 4 random-start subgroups: Group A early follicular phase (from day 1 to day 9 of the cycle), Group B defined as late follicular phase from day 10 to 14 (Group B was administered hCG for triggering prior to COS, whereas Group C wasn’t) and finally Group D luteal phase of the cycle (past day 14 of the cycle).

RESULTS: Referral patients had breast cancer in 217 cases. 150 patients had Hodgkin’s lymphoma, 40 had another malignant blood disease, while the other 124 had various other illnesses. Only 301 patients (56.7%) underwent a FP procedure in our department, and it was successful in 265 cases (89.3%).

Out the 265 patients, 77 had started ovarian stimulation in the early follicular phase (Group A); 46 in late follicular phase (Group B+C) and 142 in luteal phase (Group D). The mean duration of stimulation was shortest in Group A (9.15 ± 1.4 days) and longest in Group D (9.93 ± 2.0 days). The difference was statistically significant (p = 0.007).

Furthermore, Group A was administered the lowest total dose of gonadotropins (2478.35 ± 539.03 Units) whereas Group B+C significantly required the highest dosage (2814.06 ± 562.52 Units) (p < 0.002).

On the other hand, the mean number of follicles larger than 15 mm in ultrason on the day of triggering was similar in all subgroups (8.95 ± 5.53; 8.96 ± 5.9; 8.69 ± 5.6; P = 0.92). No statistically significant difference was found between the different groups in terms of total number of vitrified oocytes (8; 8; 8.75; p = 0.13) and metaphase II oocytes (6.93; 6.98; 7.92; p = 0.88).

CONCLUSIONS: Random start is nowadays considered the Gold standard for emergency ovarian stimulation in Fertility preservation, as it allows FP patients to undergo protocol without delay. Depending on the day of onset, duration of stimulation and therefore total dose of gonadotropins administered may vary, without impacting overall outcome and especially the total number of oocytes retrieved and mature oocytes vitrified. Random Start protocol has proven its overall convenience and efficiency.

IMPACT STATEMENT: Our daily challenge is to expand our purpose, raise awareness, better inform our peers, fellow colleagues in various specialties throughout the country and patients, potentially exposed to gonadotoxic treatment, before it is implemented. Furthermore, our call is also a healthcare and social cause, to ensure that FP is made accessible to all, to lift financial limitations and social taboos.

ORAL ABSTRACT SESSION: PREIMPLANTATION GENETIC TESTING I

Polygenic Embryo Risk Scores: A Survey of Public Knowledge and Perception.

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OBJECTIVE: To evaluate the opinions and attitudes of the general US public regarding preimplantation genetic testing for polygenic conditions (PGT-P).

MATERIALS AND METHODS: A web-based questionnaire consisting of 26 questions was administered to a nationally representative sample of adult US residents according to age and sex. The survey contained a description of PGT-P followed by questions with Likert scale-responses ranging from strongly agree to strongly disagree. Survey topics included the safety, costs, utilization, and ethics surrounding PGT-P. Respondents who disagreed with the use of IVF for any indication were excluded from final analyses. Demographic data of respondents were collected and ordinal logistic regression was used to assess the association between the socio-demographic characteristics of the respondents and perceptions regarding PGT-P.

RESULTS: Of the 715 respondents recruited, 673 (94%) completed the survey. Thirty-eight respondents disagreed with the use of IVF for any indication and were excluded from the final analysis. Two responses were excluded due to incomplete responses. Of the remaining 633 (88%) responses, 465 (73%) supported and 39 (6%) opposed use of PGT for detection of aneuploidy (PGT-A) or monogenic disorders (PGT-M). Most respondents agreed that use of PGT-P is ethical (53%) and another 37% were neutral; however, approximately 1 in 10 respondents disagreed and were opposed to the use of PGT-P. Those that opposed PGT-P cited that it was “unethical” (46%), “not natural” (39%), believed children can be negatively affected (31%) or that it went against their religion (15%). Sixty-two percent of respondents believed PGT-P should be covered by insurance, whereas 10% did not. The majority of respondents did not know whether PGT-P was safe for embryos (68%) or children (67%) and responded that anyone (53%) can utilize it. Most respondents (71%) felt research on PGT-P should continue. When asked about cost, 42% of respondents would be willing to pay $200-500/embryo for PGT-P, while 35% reported they would not pay for it at all. Age (<45yo vs. 45+, OR:0.68, p = 0.04), religion (Atheist vs. Christian non-Catholic, OR:1.93, p = 0.006), higher education (OR:1.24, p = 0.009) and political party affiliation (Democrats vs. Libertarians, OR:0.5, p = 0.029) were associated with agreeing that “PGT-P is ethical.” Respondents who answered that it is important to have a child free of disease (OR:2.41, p = 0.001) and believed PGT-P was safe (OR:7.37, p < 0.001) were more likely to support PGT-P use.

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