was not different between groups. FSH, AMH, tAFC, and AFC-LD were significantly different between the three groups. AFC-LD was highly correlated to tAFC (r=.83) and AMH (r=.80). The optimal cut point for AFC-LD was >=6 with a sensitivity of 96.26% and specificity of 74.29% for normal ovarian reserve.

CONCLUSION: Measuring the AFC-LD correlates well to established measures of ovarian reserve and a cut-off of at least 6 indicates good ovarian reserve. AFC-LD is a novel measure that shows promise for assessing ovarian reserve in cancer survivors and naturally aging women.

Supported by: RO1HD062797

P-17 Tuesday, October 21, 2014

PROTECTIVE EFFECTS OF SILDENAFIL CITRATE ADMINISTRATION ON CISPLATIN-INDUCED OVARIAN DAMAGE IN RATS. M Islimye Taskin,[a] A. Yay,[b] E. Adali,[a] E. Balcioglu,[b] U. Inceboz.[a] [a]Obstetrics and Gynecology, Balikesir University School of Medicine, Balikesir, Bigadic, Turkey; [b]Histology and Embryology, Erciyes University School of Medicine, Kayseri, Turkey.

OBJECTIVE: The aim of this study is to evaluate the effects of sildenafil citrate on cisplatin-induced ovarian toxicity.

DESIGN: This study was designed as an experimental study and was holded in university-based research laboratory. A total of 32 Wistar albino female rats of cycling reproductive age were used in the experiments. Rats were utilized to create four groups. Group 1: Saline control (n=8); Group 2: Cisplatin (n=8); Group 3: Sildenafil citrate (n=8); Group 4: Cisplatin plus sildenafil citrate group (n=8).

MATERIALS AND METHODS: The rats in group 2 were injected with cisplatin at a dose of 5 mg/kg intraperitoneally (i.p.). The rats in group 4 were given sildenafil citrate i.p. at a dose of 1.4 mg/kg. Subsequently, 30 min later, cisplatin was administrated i.p. at a dose of 5 mg/kg. The rats in group 3 were injected with sildenafil citrate at a dose of 1,4 mg/kg i.p. The rats in group 1 were given saline i.p. in equal volumes. These injections were repeated weekly twice in total. Ovaries were removed two weeks later in all groups. Histopathologic examination, follicle counting and classification was performed. The expression of anti-Mullerian hormone (AMH) was detected immunohistochemically in the ovarian tissues. Primordial, primary, preantral, secondary, tertiary follicle counts and immunoreactivity intensity of AMH were evaluated statistically among groups.

RESULTS: Sildenafil alleviated cisplatin-induced histopathological changes in the ovarian tissue. Primordial, secondary and tertiary follicles were diminished in group 2 compared with the group 1 ($p<0.05$). Pre-treatment with sildenafil citrate was increased primordial follicle count in group 4 according to group 2 and this increase was statistically significant ($p<0.05$). Secondary and tertiary follicle counts were not ameloriated in group 4 according to group 2. Primary and preantral follicle counts were not differed among the groups. According to our results, immunoreactivity intensity of AMH was decreased in group 2 according to group 1 (92,4±3,97 vs. 88,8±1,77) with no sitatistically significant difference. Whereas, immunoreactivity intensity of AMH was increased in group 4 according to group 2 (88,8±1,77 vs. 94,1±2,36) ($p<0.05$).

CONCLUSION: Our results have demonstrated that pre-treatment with sildenafil citrate is beneficial for protecting ovaries from cisplatin-induced ovarian damage. Sildenafil citrate can be a choice for fertility preservation.

Supported by: Self-supported.

P-18 Tuesday, October 21, 2014

AMH VALUES MAY BE FALSELY LOWERED BY STORAGE CONDITIONS, ASSAY PROCESSING AND LENGTH OF TIME STORED. J. S. Rhee,[a] E. A. Seidler,[a] E. Eklund,[b] G. Lambert-Messerlian,[b] A. R. Cooper.[a] [a]OB/Gyn, Washington University in St. Louis School of Medicine, St Louis, MO; [b]OB/Gyn, Alpert Medical School of Brown University, Providence, RI.

OBJECTIVE: Antimullerian Hormone (AMH) is now a widely measured value for both clinical and research purposes, given its utility as a marker of ovarian reserve. Our study's objective was to determine if AMH values varied depending on serum storage conditions, length of storage time, and between different assays.

DESIGN: Observational Pilot Study.

MATERIALS AND METHODS: A single serum sample from 10 patients participating in an ongoing study investigating ovarian reserve and autoimmune disease in April 2013 was frozen within 3 hours of collection and stored at -80 C until shipment to an independent blinded lab (W&I). A portion of the sample was initially thawed 1 month later and AMH analyzed. Manual ELISA was run in duplicate using the Beckman Coulter (BC) Gen II assay (lot 225002). Remaining samples were thawed after 3 months and processed in 3 different ways in the same batched analysis: 1) BC Gen II assay (lot 324042) original protocol 2) BC Gen II assay (lot 324042) newly recommended pre-dilution protocol 3) Ansh Lab assay (lot 082812).

RESULTS: AMH values varied depending on storage time, dilution protocol and assay. There was up to a 39% reduction in the original AMH value after 3 months of storage when using the BC Gen II assay original protocol. When using the pre-dilution protocol, the original values were restored. AMH values obtained after 3 months of storage using the Ansh Lab assay were comparable to the BC Gen II pre-dilution values.

Patient AMH Values

Patient	Age	AMH (ng/mL) at 1 mo (BC Gen II)	AMH (ng/mL) at 3 mo (BC Gen II Original Protocol)	AMH (ng/mL) at 3 mo (BC Gen II Pre-Dilution Protocol)	AMH (ng/mL) at 3 mo (Ansh Lab)
1	40	0.38	0.26	0.47	0.42
2	30	2.71	1.98	3.01	3.17
3	49	<0.08	<0.08	<0.08	<0.10
4	44	0.1	0.09	0.14	0.17
5	39	0.56	0.34	0.66	0.59
6	35	1.15	0.72	0.97	1.42
7	51	<0.08	<0.08	<0.08	<0.10
8	36	5.52	4.6	4.86	5.49
9	42	2.84	2.46	2.54	2.98
10	30	2.43	1.88	1.9	2.87

CONCLUSION: Our pilot study shows that AMH values can vary significantly depending on storage conditions, storage time, and type and lot of assay used. Whether this is due to assay interference from other factors such as complement (BC field notice) will continue to be investigated. Several AMH assays exist and clinicians must be diligent with regard to understanding where and how samples are tested for both clinical and research purposes. Given the increasing importance placed on AMH values in clinical decision making for patients, further research in this area is of utmost importance.

Supported by: 1K12HD063086-01 (ARC), Beckman Coulter Inc., support (ARC) and grant funding (GLM), 5T32HD040135-12 (JSR).

P-19 Tuesday, October 21, 2014

DIMINISHED FUNCTIONAL OVARIAN RESERVE IS ASSOCIATED WITH DYSBOLISM OF AMYLOID PRECURSOR PROTEIN IN GRANULOSA CELLS. J. Niu, S.-L. Chen, F.-H. Duan, X. Chen, P. Li. Nanfang Hospital, Southern Medical University, Guangzhou, Guangdong, China.

OBJECTIVE: Diminished ovarian reserve is a primary cause of age-related decline in female fertility. However, its underlying mechanism remains unknown. Overexpression of amyloid precursor protein (APP) in granulose cells (GCs) is related with ovarian aging have been demonstrated. This study detected APP, β-site APP-converting enzyme(BACE1),amyloid-β42(Aβ42) and apoptosis family members to further explore the impact of APP and its metabolites on ovarian.

DESIGN: The study involved in 19 women with premature ovarian aging/occult primary ovarian insufficiency(POA/OPOI),defined as age<38years and abnomally low functional ovarian reserve (FOR) by age-specific FSH and/or anti-Mullerian hormone(AMH);29 women with physiologic diminished ovarian reserve(DOR),defined as age>40 years;32 control patients<38years demonstrated normal ovarian reserve by FSH and/or AMH.

MATERIALS AND METHODS: Total RNA was extracted from each GC sample and expression of APP,BACE1,Bcl-2,Bax was performed by qRT-PCR. Follicular fluid of all patients were collected and ElISA was applied to detect the expression of Aβ42. Comparison among the three groups was performed by significance analysis of one-way ANOVA.