line stem cells referred to ovarian-derived stem cells (OSC) were firstly reported only in 2009. Isolation of these cells was replicated by a small number of other groups in mouse, rat and extended to a human model. The objective of this study is to demonstrate the presence of OSC in non-human primates (NHPs), which can generate mature oocytes following transplantation into the ovary.

DESIGN: Eggs from ovarian stem cell transplantation were characterized and explored their fertilization potential.

MATERIALS AND METHODS: The ovarian cortex was digested with collagenase IV and DNase followed by FACS with the DDX4 antibody. The cells were expanded in culture, transfected with a GFP lentivirus, and transplanted into the remaining ovary of the rhesus monkey. Following transplantation, gonadotropins were used for ovarian hyperstimulation to isolate oocytes. Oocytes transplant derivatives were assessed by fluorescence, PCR and nested PCR. True oocyte phenotype with appearance of intact zona pellucida and polar body was observed along with expression of oocyte specific genes. Intracytoplasmic sperm injection was performed with collected MII oocytes and fertilization and embryo development potential assessed.

RESULTS: Here we demonstrate, for the first time, the presence of adult stem cells in the primate ovary which form mature oocytes with fertilization capacity following orthotopic transplantation. Two out of 68 oocytes obtained by follicular aspiration were confirmed OSCs origin, whereas 17 out of 83 from microdissection. A mature oocyte originating from OSCs developed into 64-cells stage embryo.

CONCLUSIONS: Stem cells from NHP adult ovaries can be transplanted and give rise to new oocytes that fertilize and develop into an embryo, suggesting that these stem cells could be a novel approach to treating infertility.

MALE REPRODUCTION AND UROLOGY: CLINICAL 2

O-193 Wednesday, October 19, 2016 11:15 AM

UROLOGISTS’ ATTITUDES TOWARDS PENILE TRANSPLANTATION. B. B. Najari,a P. V. Bach,b A. Bolyakov,a R. Lischer,c D. Pudach. "Urology, Weill Cornell Medical College, New York, NY;" Weill Cornell Medical College, New York, NY; "Dept of Urology, Weill Cornell Medical College, New York, NY.

OBJECTIVE: Recent military conflicts have resulted in a dramatic increase in genitourinary trauma experienced by members of the United States Armed Forces. Penile transplantation has the potential to improve the quality of life of these men. Our objective was to characterize urologists’ attitudes towards penile transplantation and the perceived relative importance of penile functions.

DESIGN: Online survey

MATERIALS AND METHODS: An online survey was sent to members of the American Urological Association (AUA) using the SurveyMonkey platform. Respondents were asked if they are in favor of (1) organ transplantation in general, (2) transplantation of visceral organs that prolong life (i.e., kidney), (3) transplantation of organs that improve quality of life (i.e., face), and (4) penile transplantation. The responses ranged from “Extremely in favor (1)” to “Not at all in favor (5”). Participants were also queried about the perceived importance of various penile functions, with responses varying from “Extremely important (1)” to “Not at all important (5)”.

RESULTS: Two hundred twenty eight urologists responded to the survey. Three quarters of the respondents were general urologists, 9.1% were specialists in genitourinary reconstruction, and 13.5% were specialists in andrology. The respondents were 88.5% male and 88.4% white, similar to the demographics of the AUA. Twenty percent of the respondents had been employed by the armed forces at some point in their life. At baseline, the participants were significantly less in favor of penile transplantation [mean (SD) 2.4 (1.2)], than other forms of organ transplant (Table). Age, race, and religion were factors that influenced participant attitudes toward penile transplantation and penile function (Table).

CONCLUSIONS: Urologists’ attitudes toward penile transplantation are more negative than other forms of organ transplantation. Various demographic differences in race and age are associated with attitudes toward penile transplantation and function.

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O-194 Wednesday, October 19, 2016 11:30 AM

SPERM DNA FRAGMENTATION AS TREATMENT GUIDANCE FOR INFERTILE COUPLES. T. Paniza,a T. Cozzubbo,a A. Parrella,a S. Cheung,a M. Goldstein,b Z. Rosenwaks,a G. D. Palermo. "Reproductive Medicine, Weill Cornell Medicine, New York, NY;" Urology, Weill Cornell Medicine, New York, NY.

OBJECTIVE: Throughout the male genital tract oxygen-free radicals, mostly from decaying spermatozoa and other cells, are the main cause of DNA damage and responsible for suboptimal infertility treatment. We elected sperm chromatin fragmentation (SCF) as guidance toward the appropriate insemination method in couples with unexplained infertility and history of poor IUI outcome.

DESIGN: Over a 30-month period, for each treatment method couples were allocated to the appropriate ART treatment according to the level of SCF. The clinical pregnancy rate was evaluated in relation to each insemination method chosen.

MATERIALS AND METHODS: Infertile couples (n = 578) underwent standard semen analysis and resulted in adequate semen parameters for IUI and ART. Couples that failed IUI were then screened for chromatin fragmentation by TUNEL, and/or SCSA® on their ejaculates. In-house TUNEL assessment evaluates 500 spermatozoa under fluorescent microscopy and patients were deemed abnormal when sperm DFI reached ≥15%. SCSA® assessment was performed at a reference laboratory and analyzes 5000 spermatozoa (abnormal ≥25%).

RESULTS: A total of 578 couples underwent 1445 cycles and included women with an average age of 37.4±4yrs and men with a mean age of 39.5±5yrs. The overall average sperm concentration was 49.4±30 million with a motility of 49.8±13% and normal morphology. Based on a control, the expect intrauterine insemination (IUI) clinical pregnancy rate was
SLEEP AND MALE FECUNDITY IN A NORTH AMERICAN PRE-
1950-1959 COHORT. L. A. Wise, A. C. McKinnon, S. Rubi,
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Spain; bUniversitat de València, Valencia, Spain; cUniversitat Politécnica de València, Valencia, Spain; dHospital Universitari i Politècnic La Fe, Valencia,
Spain.

OBJECTIVE: Some vaginal lubricants and ultrasound gels can be detri-
mental to sperm function and therefore could negatively affect fertility.
The toxic properties of substances coming into contact with human sperm
1/2 can be screened using a sperm survival assay that provides a sperm motility
index (SMI), where values < 0.75 indicate sperm toxicity. The aim of this study
was to test the SMI as a potential predictor of sperm toxicity in ultra-
sound gels and vaginal commercial lubricants.

CONCLUSIONS: Comparative prospective in vitro study.

MATERIALS AND METHODS: 20 normozoospermic washed ejaculates
adjusted to 20 million/ml were used to evaluate the toxicity of two ultrasound
gels (Kefus® and Aquasonic®) and five vaginal lubricants (Durex®, Vagine-
sil®, K-Y Jelly®, Control® and Velastasia®). Three concentrations (1, 5,
and 10%) of each lubricant were tested. Only 10% concentration was tested for
ultrasound gels. An aliquot of sperm suspension served as control. A com-
puter-assisted semen analyzer (CASA) assessed motility. The sperm toxicity
was screened using SMI for each concentration at 0.5, 1, and 24 hours. SMI
was calculated by dividing the percent of progressively motile sperm in the
test solution by that in control at specific times. Vitality was evaluated by
HOE test. Multifactorial ANOVA analysis determined variance between
groups.

RESULTS: There were significant differences in vitality and sperm
motility following exposure to different preparations and incubation times
(p < 0.01). Durex® had the highest vitality percentage at 24 hours (83.8%
for a 5% and 71.6% for a 10%) and the lowest was Vaginesil® (11% for a
5% and 8.4% for a 10%). Exposure to Durex® resulted in a significantly
higher percentage of progressive motility spermatozoa compared with all
other lubricants (< 80% for a 5% concentration after 2 hours). However, Vagi-
nesil® dramatically decreased sperm motility after 0.5 hours of exposure at
1% and resulted toxic for all concentrations and incubation periods
(SMI<0.12). Control® and Velastasia® did not present toxicity for any con-
centration and incubation period, K-Y Jelly® only showed toxicity at 10% from
1 hour incubation. Aquasonic® showed toxic effects after only 30
min (SMI 0.69). Though Kefus® was toxic after 120 min (SMI 0.69).

CONCLUSIONS: Coital lubricants and ultrasound gels contain tradition-
ally harmless ingredients that could be detrimental for sperm function.
The American Society for Reproductive Medicine Practice Committee consensus
guideline Optimizing Natural Fertility urges physicians to discuss the impor-
tance of ultrasound gels and coital lubricants choice for couples who are
trying to conceive.

O-197 Wednesday, October 19, 2016 12:15 PM

MANAGEMENT AND OUTCOMES OF PATIENTS WITH ACUTE
EXTERNAL GENITAL TRAUMA: A 12-YEAR COMBINED INSTI-
TUTION EXPERIENCE. M. C. Hehemann, A. M. Kandabarow,
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Maywood, IL; dDepartment of Urology, Northwestern University Feinberg
School of Medicine, Chicago, IL.

OBJECTIVE: External genital trauma (EGT) often requires emergent uro-
logic (GU) intervention. Reproductive and sexual outcomes in this popula-
tion are poorly studied. We aim to characterize the presentation, manage-
ment, and GU follow-up of patients with EGT. We hypothesize

Table 1

<table>
<thead>
<tr>
<th>External Genital Trauma (n = 304)</th>
<th>GU Consultation Performed n = 176/304 (58%)</th>
<th>Surgical Management n = 88/176 (50%)</th>
<th>Non-Surgical Management n = 88/176 (50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scrotal Trauma</td>
<td>Scrotal</td>
<td>55/111 (50%)</td>
<td>56/111 (50%)</td>
</tr>
<tr>
<td>208/304 (68%)</td>
<td>111/208 (53%)</td>
<td>19/47 (40%)</td>
<td>28/47 (60%)</td>
</tr>
<tr>
<td>Penile Trauma</td>
<td>Penile</td>
<td>47/76 (62%)</td>
<td>51/76 (68%)</td>
</tr>
<tr>
<td>76/304 (25%)</td>
<td>56/208 (27%)</td>
<td>60/76 (80%)</td>
<td>18/76 (24%)</td>
</tr>
<tr>
<td>Dual Trauma</td>
<td>Dual</td>
<td>14/18 (78%)*</td>
<td>4/18 (22%)</td>
</tr>
<tr>
<td>20/304 (7%)</td>
<td>18/20 (60%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Supported by: This research was supported by NICHD (R21-HD072326).