

17.9% (28 - 35 maternal age), however, this study cohort evidenced a clinical pregnancy rate of just 3.2% still with maternal age ranging from 25-51 years. Men in this group presented with a TUNEL of 27.4±17% and SCSA DFI of 38.2±27%. Men with normal SCF were subsequently treated by in vitro insemination and reported a pregnancy rate of 22.1%. Once we controlled for an eventual confounding female factor (female age ≤35yrs), a remarkably higher pregnancy rate of 36.6% ($P < 0.001$) was reached. On the other hand, couples with abnormal DFI were treated exclusively by ICSI yielding a higher pregnancy rate at 20.6%, and 28.7% with females ≤35yrs old ($P < 0.001$). For those patients that failed to establish a viable pregnancy with ICSI and ejaculated spermatozoa, after thorough counseling testicular sampling was offered. In 40 couples that consented testicular biopsy the SCF was 11.7±6%, remarkably lower than in their ejaculate, and a pregnancy rate of 25.6% ($P < 0.001$) was attained.

CONCLUSIONS: This study provides a DNA fragmentation-based algorithm that allows appropriate allocation of resources and guides patients towards the appropriate infertility treatment. IVF is successful in men with intact sperm chromatin; however, when sperm SCF is compromised in the ejaculate, ICSI is the most suitable insemination method. In men with high DNA fragmentation in their ejaculate and pursuant pregnancy failure, surgical sampling yielded spermatozoa with lower SCF and higher changes of pregnancy.

O-195 Wednesday, October 19, 2016 11:45 AM

SLEEP AND MALE FECUNDITY IN A NORTH AMERICAN PRE-CONCEPTION COHORT STUDY. L. A. Wise,^a C. Mckinnon,^a A. Wesslink,^a K. J. Rothman,^{a,b} E. E. Hatch.^a ^aDepartment of Epidemiology, Boston University School of Public Health, Boston, MA; ^bRTI International, Research Triangle Park, NC.

OBJECTIVE: To evaluate prospectively the extent to which duration and quality of sleep influences male fecundability. Sleep problems have been associated with lower sperm concentration, total sperm count, and percent normal sperm morphology, as well as decreased testosterone levels. No studies have been prospective in design.

DESIGN: Prospective cohort study.

MATERIALS AND METHODS: The Boston University Pregnancy Online Study (PRESTO) is a web-based prospective cohort study of couples residing in the United States and Canada. Male participants are aged 21 years or older; female participants are aged 21-45 years. At baseline, men reported data on their average nightly sleep duration and the frequency with which they had trouble sleeping in the previous two weeks (as assessed by the Major Depression Inventory). Male data were linked with those of their female partner, and follow-up questionnaires were completed by the female partner every 8 weeks for up to 12 months or until reported pregnancy, whichever occurred first. The analysis was restricted to 695 couples who had been attempting to conceive for 6 or fewer cycles at study entry. We used proportional probabilities regression models to estimate fecundability ratios (FR) and 95% confidence intervals (CI), controlling for male and female age, male and female BMI, intercourse frequency, male education, smoking, multivitamin use, unemployment status, average number of work-hours per week, and clinical depression.

RESULTS: We observed an inverted U-shaped relation between sleep duration and male fecundability. Relative to 8 hours/night of sleep, FRs for less than 6, 6, 7, and 9 or more hours/night of sleep were 0.69 (CI: 0.47-1.02), 1.08 (CI: 0.84-1.39), 0.97 (CI: 0.77-1.21), and 0.51 (CI: 0.27-0.99), respectively. Compared with men who had no trouble sleeping, FRs for men who had trouble sleeping "some of the time or slightly less than half of the time" and "slightly more than half of the time, most of the time, or all of the time" were 0.79 (CI: 0.53-1.17) and 0.57 (CI: 0.27-1.23), respectively. When we did not control for intercourse frequency or clinical depression, which are possible causal intermediates, there was little difference in these effect estimates. Further restriction of the cohort to those with fewer than 3 cycles of attempt time at baseline produced similar results.

CONCLUSIONS: In this cohort of pregnancy planners, short and long durations of sleep, as well as trouble sleeping at night, were associated with reduced male fecundability.

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

O-196 Wednesday, October 19, 2016 12:00 PM

SPERM SURVIVAL ASSAY FOR TOXICITY EVALUATION IN ULTRASOUND GELS AND VAGINAL LUBRICANTS USED IN REPRODUCTIVE MEDICINE. M. Soriano,^a I. Molina,^a S. Sadeghi,^b J. Martinez,^a R. Rogel,^a S. Lujan,^a S. Balasch,^c P. Fernandez,^a

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OBJECTIVE: Some vaginal lubricants and ultrasound gels can be detrimental to sperm function and therefore could negatively affect fertility. The toxic properties of substances coming into contact with human sperm 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 ultrasound gels and vaginal commercial lubricants.

DESIGN: 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®, Vaginesil®, K-Y Jelly®, Control® and Velastisa®). 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 computer-assisted semen analyzer (CASA) assessed motility. The sperm toxicity was screened using SMI for each concentration at 0.5, 1, 2 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 HOS 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 higher 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% at any concentration after 2 hours). However, Vaginesil® 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 Velastisa® did not present toxicity for any concentration 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 traditionally 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 importance 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 INSTITUTION EXPERIENCE. M. C. Hehmann,^a J. Kashanian,^b A. M. Kandabarow,^c J. Tse,^d D. J. Mazur,^d G. Barton,^c A. Farooq,^c R. E. Brannigan.^d ^aLoyola University Health Systems, Department of Urology, Maywood, IL; ^bDepartment of Urology, Weill Cornell Medicine, New York, NY; ^cDepartment of Urology, Loyola University Health Systems, Maywood, IL; ^dDepartment of Urology, Northwestern University Feinberg School of Medicine, Chicago, IL.

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

Table 1

	GU Consultation Performed n =	Surgical Management n = 88/176 (50%)	Non-Surgical Management n = 88/176 (50%)
External Genital Trauma (n = 304)	176/304 (58%)		
Scrotal Trauma 208/304 (68%)	Scrotal 111/208 (53%)	55/111 (50%)	56/111 (50%)
Penile Trauma 76/304 (25%)	Penile 47/76 (62%)	19/47 (40%)	28/47 (60%)
Dual Trauma 20/304 (7%)	Dual 18/20 (90%)	14/18 (78%)*	4/18 (22%)