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24 to 26 June 2019

Abstracts

35th Annual Meeting of the
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ORAL PRESENTATIONS

Monday, 24 June 2019

08:30 - 09:30	Session 01: Keynote session	Mozart
10:00 - 11:30	Session 02: Novel approaches for predicting embryo viability.	Mozart
10:00 - 11:30	Session 03: Biomarkers and signals in endocrinology	Haydn 1
10:00 - 11:30	Session 04: Fertility outcomes and the male	Haydn 3
10:00 - 11:30	Session 05: Its all about the endometrium.	Haydn 2
10:00 - 11:30	Session 06: Reproductive epidemiology, health economics and access to care	Haydn 4
10:00 - 11:30	Session 07: Children's health outcomes in MAR	Strauss 1+2
11:45 - 12:45	Session 08: Optimizing ART success in poor prognosis patients	Haydn 1
11:45 - 12:45	Session 09: ESHRE Recommendations for good practice	Haydn 3
11:45 - 12:15	Session 10: Fertility Society of Australia exchange lecture	Haydn 2
11:45 - 12:45	Session 11: Fertilization in the research and human IVF laboratories	Haydn 4
11:45 - 12:45	Session 12: RCT session - The latest news	Strauss 1+2
14:00 - 15:00	Session 13: Understanding miscarriage after ART	Haydn 1
14:00 - 15:00	Session 14: Nurses/Midwives invited session: Commercialisation of egg freezing: A debate.	Haydn 3
14:00 - 15:00	Session 15: Oocyte ageing in vivo and in vitro.	Haydn 2
14:00 - 15:00	Session 16: ESHRE guideline on ovarian stimulation	Haydn 4
14:00 - 15:00	Session 17: New perspectives in diagnosis and treatment of uterine pathologies.	Strauss 1+2
15:15 - 16:30	Session 18: Genetic and cellular determinants of embryonic function	Mozart
15:15 - 16:30	Session 19: Freeze all for all?	Haydn 1
15:15 - 16:30	Session 20: Spermatogenesis.	Haydn 3
15:15 - 16:30	Session 21: Insights on embryo selection and PGT/IVF outcomes.	Haydn 2
15:15 - 16:30	Session 22: Preventing infertility: What works?	Haydn 4
15:15 - 16:30	Session 23: Endometriosis and endometrium: New insights in disease mechanisms	Strauss 1+2
17:00 - 18:00	Session 24: Are IVF children different?	Haydn 1
17:00 - 18:00	Session 25: Navigating between hope and hype in science communication: Ethical issues in publicising research	Haydn 3

(continued overleaf)

17:00 - 18:00	Session 26: Donor identity - Who is telling who?	Haydn 2
17:00 - 18:00	Session 27: PGT data reporting	Haydn 4
17:00 - 18:00	Session 28: Nursing and midwifery	Strauss 1+2

Tuesday, 25 June 2019

08:30 - 09:30	Session 29: The presence of mosaicism. What do we do?	Mozart
08:30 - 09:30	Session 30: New frontiers	Haydn 1
08:30 - 09:30	Session 31: 3D reproductive organs	Haydn 3
08:30 - 09:30	Session 32: ASRM exchange session - Continuing controversies in ART	Haydn 2
08:30 - 09:30	Session 33: Improving female fertility after cancer	Haydn 4
10:00 - 11:30	Session 34: New insights gained through time-lapse imaging	Mozart
10:00 - 11:30	Session 35: Live surgery session	Haydn 1
10:00 - 11:30	Session 36: Stem cells to improve reproductive functions	Haydn 3
10:00 - 11:30	Session 37: Recurrent pregnancy loss and implantation failure	Haydn 2
10:00 - 11:30	Session 38: Fertility preservation 1	Haydn 4
10:00 - 11:30	Session 39: Clinical research in endometriosis and endometrium: from diagnosis to treatment and prevention	Strauss 1+2
11:45 - 12:45	Session 40: European and global ART monitoring	Haydn 3
11:45 - 12:45	Session 41: Luteal phase support – have we got it right?	Haydn 2
11:45 - 12:45	Session 42: Mitochondria in health and ageing	Haydn 4
11:45 - 12:45	Session 43: Barriers and boundaries in innovative assisted reproduction technologies	Strauss 1+2
14:00 - 15:00	Session 44: MHR symposium: Dynamic interaction between the male gamete and its environment	Haydn 1
14:00 - 15:00	Session 45: Priorities for future infertility research	Haydn 3
14:00 - 15:00	Session 46: Genetics of male infertility: Dad's contribution	Haydn 2
14:00 - 15:00	Session 47: Patient session - Communication during the infertility journey	Haydn 4
14:00 - 15:00	Session 48: Impact of pelvic pathology on pregnancy outcomes	Strauss 1+2
15:15 - 16:30	Session 49: Intelligent automation in the embryology laboratory	Mozart
15:15 - 16:30	Session 50: The luteal phase	Haydn 1
15:15 - 16:30	Session 51: Male fertility, epigenetics, the environment and lifestyle	Haydn 3
15:15 - 16:30	Session 52: ART from the point of view of safety	Haydn 2
15:15 - 16:30	Session 53: New findings in reproduction genetics	Haydn 4
15:15 - 16:30	Session 54: Fertility preservation 2	Strauss 1+2
17:00 - 18:00	Session 55: Non-invasive approaches for predicting embryo ploidy	Haydn 1
17:00 - 18:00	Session 56: Factors affecting the ovary	Haydn 3
17:00 - 18:00	Session 57: The influence of endometriosis on pregnancy rates and methods for improvement	Haydn 2
17:00 - 18:00	Session 58: SQART in toxicity. Targeted gene-editing and Monozygotic twinning	Haydn 4
17:00 - 18:00	Session 59: Decision-making and adjustment to treatment: before, during and after	Strauss 1+2

Wednesday, 26 June 2019

08:30 - 09:30	Session 60: Cochrane session	Haydn 1
08:30 - 09:30	Session 61: The uterus and the surgeon.	Haydn 3
08:30 - 09:30	Session 62: Sperm DNA matters	Haydn 2
08:30 - 09:30	Session 63: IFS-ISAR exchange session - Controversies to consensus in recurrent implantation failure	Haydn 4
10:00 - 11:45	Session 64: Micromanipulation revisited	Mozart
10:00 - 11:45	Session 65: Improving IVF outcome.	Haydn 1
10:00 - 11:45	Session 66: Biomarkers of oocyte and embryo health.	Haydn 3
10:00 - 11:45	Session 67: ICSI and surgical sperm retrieval.	Haydn 2
10:00 - 11:45	Session 68: Recent developments in poor ovarian response	Haydn 4
10:00 - 11:45	Session 69: Pregnancy location and outcome.	Strauss 1+2
12:00 - 13:00	Session 70: Burning questions in Polycystic Ovary Syndrome.	Mozart
12:00 - 13:00	Session 71: Can IVF influence human evolution?	Haydn 1
12:00 - 13:00	Session 72: Nurses/Midwives invited session: Patient education	Haydn 3
12:00 - 13:00	Session 73: Endometriosis, inflammation and the immune system.	Haydn 2
14:00 - 15:30	Session 74: New aspects in reproductive endocrinology	Mozart
14:00 - 15:30	Session 75: Basic science of andrology.	Haydn 1
14:00 - 15:30	Session 76: Update on embryo diagnostic techniques.	Haydn 3
14:00 - 15:30	Session 77: Predicting pregnancy outcomes	Haydn 2
14:00 - 15:30	Session 78: Intrinsic and laboratory determinants of IVF success	Haydn 4
14:00 - 15:30	Session 79: Novel insights in PCOS	Strauss 1+2

- **INVITED SESSIONS**

- **SELECTED ORAL COMMUNICATION SESSIONS**

addition, a positive significant correlation between STL and total sperm count was observed only in normozoospermic patients ($n=33$, $r=0.361$, $p=0.039$). Sperm concentration may be affected by short STL due to induced apoptosis when STL reaches a critical point. However, altered seminal parameters erase this correlation, indicating that sperm concentration can be altered independently of STL. The present results thus suggest that although STL cannot be considered a general indicator of sperm quality, it might have a biological significance.

Limitations, reasons for caution: Additional studies with an increased sample size in the different clinical groups will help to validate the present statistical results.

Wider implications of the findings: Our study clarifies that different sperm sample characteristics may lead to discrepant results when evaluating the importance of STL in male infertility. We conclude that STL is not a suitable biomarker of sperm quality. However, given the importance of telomeres in reproduction, STL may still be associated with treatment prognosis.

Trial registration number: not applicable.

P-087 Abnormal sperm mitochondrial membrane potential in "normozoospermic WHO patients": outcome in ICSI patients

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Study question: Is abnormal sperm mitochondrial membrane potential (MMP) at Andrositol Test (AT) related to ICSI outcome in infertile couples presenting normozoospermia according to WHO, 2010 parameters?

Summary answer: In infertile ICSI couples presenting normozoospermia by WHO, 2010 parameters, abortion rate was found to be significantly higher in "abnormal" than in "normal" AT group.

What is known already: Poor sperm motility and morphology according to WHO parameters, interfere with fertilization and ICSI outcomes. "Idiopathic male infertility" in WHO normozoospermia still represents a difficult area where complex and expensive tests have been proposed. Andrositol® Test (Lo.Li. Pharma) is a simple and economic diagnostic procedure capable to qualitatively evaluate sperm MMP ("normal", "medium" and "poor") and allows to identify subfertile normozoospermic patients.

Study design, size, duration: The study is a retrospective review of semen samples investigated in 39 infertile couples undergoing ICSI over a 16 months period.

Participants/materials, setting, methods: 39 sperm samples with "normal" (WHO, 2010) sperm parameters from couples with "tubal factor" undergoing ICSI treatment, in a private fertility clinic, were analyzed by AT. Two groups were identified: group A, with "normal" AT and group B with "abnormal" AT. No differences were present in clinical parameters, stimulation and laboratory figures. Implantation, pregnancy and abortion rates were calculated.

Main results and the role of chance: Implantation and pregnancy rates were similar, on the contrary, abortion rate was found to be significantly higher (33%) in "abnormal" AT group (Group B) than in "normal" AT group (Group A) (16%). Since the clinical and laboratory parameters were similar in both groups, the increased abortion rate in Group B could be tentatively attributed to a post blastocyst negative factor related to abnormal sperm MMP.

Limitations, reasons for caution: Retrospective design and small sample size limit our results.

Wider implications of the findings: Whether confirmed in future studies, inositol supplementation should be considered, in vivo or in vitro, in male patients undergoing ICSI techniques presenting "abnormal" AT.

Trial registration number: The protocol was approved by the local Institutional Review Board.

P-088 Sperm p53 concentration: a potential new biomarker for environmental pollution. Preliminary data.(EcoFoodFertility Project).

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³University of Palermo, Department of Biological- Chemistry and Pharmaceutical Sciences and Technologies, Palermo, Italy

⁴"St. Francis of Assisi" Hospital- Local Health Authority ASL Salerno, Andrology Unit.. EcoFoodFertility Project Coordination Unit, Oliveto Citra- Salerno, Italy

Study question: We evaluated the p53 protein concentration in sperm cells to test whether environmental pollution can affect expression levels of this protein.

Summary answer: We found a significant difference in p53 levels between two homogeneous groups by age and lifestyle, residents in two areas with different environmental impact.

What is known already: The World Health Organization (WHO) has placed among its priority objectives the understanding of the relationships between the sources of pollution and the effects on human health, which they represent a cause of surprisingly high mortality and morbidity.

International scientific literature shows that strong environmental impact may jeopardize the stability and integrity of cellular DNA. This impairment can affect cellular functions, such as the uncontrolled growth of cells with the development of neoplastic process, until the final process of cell death (apoptosis). P53 seems to play a key role in these mechanisms, as it coordinates cell fate.

Study design, size, duration: 237 healthy males, 18-36 years old, were observed according to their stable residence in low environmental impact area (LEIA) or High environmental impact area (HEIA) of the Campania region (Southern Italy) in a period between July 2014 and June 2018. The study group has been divided into Group A: 109 permanent residents in LEIA, aged 19 - 36 years; Group B: 128 permanent residents in HEIA, aged 18 - 35 years.

Participants/materials, setting, methods: All participants were no smokers, not habitual alcohol drinkers, no professionally exposed to environmental pollutants, without varicoceles, prostatitis, urethritis or chronic diseases. Semen analysis was assessed according standard criteria of WHO Manual, fifth edition (2010). All semen samples were examined 30 minutes after collection and immediately processed for the p53 protein assay, using ELISA test, proposed by Raimondo et al. (2010)¹. Quantitative dosage of p53 protein was expressed in ng / million of spermatozoa.

Main results and the role of chance: We have observed not significant differences in ejaculate volume between group A and group B. About sperm concentration, 44,9% (40/109) of group A samples were normozoospermic while only 20,3% (26/128) of group B samples were normozoospermic. The quantitative dosage of p53 protein has been corrected in relation to sperm concentration number and shows statistically significant differences between two groups: group A had a minimum value of 0,29 ng/million of sperms and a maximum value of 4,05 ng/million of sperms, with a mean value of 1,74 ng/million of sperms; group B had a minimum value of 0,69 ng/million of sperms and a maximum value of 14,36 ng/ million of sperms, with a mean value of 6,45 ng/million of sperms. Statistical analysis of the two groups was performed using Fisher's correlation and then Student's test and we obtained a $p < 0.0005$. The differences observed in this study underlines the efficacy of quantitative dosage of p53 protein in identify a cell suffering due to environmental pollution.

Limitations, reasons for caution: This is a preliminary observational study on a small number of samples. Reasons for caution could be due to unknown confounding factors. A large number of tests are need to confirm our results.

Wider implications of the findings: p53 protein is well known as "guardian of the genome" for its key role in determining the fate of the cell following DNA damage. Quantitative dosage of p53, seems to give valuable informations on the degree of damage to sperm DNA by environmental pollution, suggesting it as potential new biomarker.

Trial registration number: it's a retrospective observational study.