BOOK OF ABSTRACTS

23RD INTERNATIONAL STUDENT CONGRESS OF (BIO)MEDICAL SCIENCES

SCIENCE BEYOND BORDERS

PROGRAMME

Tuesday 7th of June - Pre-course

08.00 - 08.30	Registration
08.30 - 08.45	Coffee and tea break
08.45 - 09.00	Day opening
09.00 - 10.30	Course 1
10.30 - 11.10	Break
11.10 - 11.40	Your Future at the UMCG
11.40 - 12.40	Speed Keynote lectures
12.40 - 13.50	Lunch
13.50 - 15.20	Science Elective
15.20 - 16.50	Course 2
16.50 - 17.30	Break
17.30 - 19.00	Course 3
19.15 -	Social Programme

Wednesday 8th of June - Congress Day 1

08.00 - 08.30	Registration
08.30 - 09.15	Opening Ceremony
09.15 - 10.15	Keynote lecture
10.15 - 11.20	Poster session I
11.20 - 11.55	Break
11.55 - 13.10	Workshops I
11.55 - 14.25	Networking lunch (optional)
13.10 - 14.25	Lunch
14.25 - 15.50	Oral session I
15.50 - 16.35	Break
16.35 - 17.35	Keynote lecture
17.35 - 18.30	Plenary session I
18.30 - 18.45	Closing Ceremony
18.45 -	Formal Dinner

Thursday 9th of June - Congress Day 2

08.00 - 08.30	Registration
08.30 - 08.45	Day opening
08.45 - 09.45	Keynote lecture
09.45 - 10.50	Poster session II
10.50 - 11.20	Break
11.20 - 12.35	Workshops II
12.35 - 13.35	Lunch
13.35 - 14.30	Plenary session II
14.30 - 15.55	Oral session II
15.55 - 16.25	Break
16.25 - 17.40	Interactive operation
17.40 - 18.25	Award & Closing Ceremony
19.00 - 22.00	Buffet
22.00 -	World Wide ISCOMS Night

GYNAECOLOGY & OBSTETRICS

CHAIR:

Non nominatus

PRESENTERS:

Biswas, A.K. (Ashok Kumar)
Fallah, N. (Nazanin)
Garmaeva, S.B. (Sanzhima)
Grad, M. (Maciej)
Gupta, A.G. (Aakanksha)
Kanumuru, K.H. (Pooja)
Khumaira, A. (Arstya)
Patted, S. (Anmol)

Effects of temperature condition on the structure of DNA organization in gametal cells

Garmaeva, S.B. (Sanzhima)[1], Mironova, A.G.[2], Simonenko, E.Y.[1], Yakovenko, S.A.[1], Grigoryeva, A.A.[1], Tverdislov, V.A.[1], Apryshko, V.P.[2]

[1] Lomonosov Moscow State University, Faculty of Physics, Moscow, Russian Federation
[2] Altravita, IVF clinic, IVF Laboratory, Moscow, Russian Federation

Introduction

Several studies confirmed that conventional sperm parameters (motility, morphology, vitality) are negatively affected by preparation conditions and cryopreservation of the sample. The objective of this study was to evaluate the influence of different temperature conditions on the integrity of sperm DNA, now widely accepted as a key player in the etiology of male factor subfertility and infertility.

Material & methods

Semen samples were obtained from 19 normozoospermic donors after a recommended period of ejaculatory abstinence (3 -7 days). TUNEL (terminal deoxynucleotidyl transferase mediated deoxyuridintriphosphate nick-end labeling) assay was performed: after 0/0.5/2.5/5/8/24h of incubation at 21°C, 37°C and 39°C; shortly post thawing and following 24h of incubation at 21°C post thawing. Each sample was cryopreserved by slow freezing technique in the presence of cryoprotectant (Quinn's Sperm Freeze Medium (SAGE)) and without any cryoprotectant medium; thawing was performed at 37 °C.

Results

Present study revealed a significant time dependent increase in DNA fragmentation index (%DFI) following incubation at all temperatures. The maximum increase was observed at 39°C: %DFI was (76,7±7,9)% after 8h and reached 100% after 24h of incubation. Shortly post thawing samples frozen without cryoprotectant showed a (1,9±0,4) fold increase in %DFI, while in samples frozen with cryoprotectant % DFI did not statistically differ from prefreeze level ($p=0.05$). Conversely, following 24h of incubation at 21°C post thawing %DFI increased twice in samples frozen without cryoprotectant and tripled (3,1±0,32) in samples frozen with cryoprotectant.

Conclusion

Incubation at all temperatures was associated negatively with DNA integrity, however %DFI was lower following incubation at 21°C compared with that at 37°C and 39°C. Although cryopreservation with cryoprotectant had no effect on DNA integrity shortly post thawing, %DFI dramatically increased after 24h of incubation. A possible explanation for this increase may be the cryoprotectant's cytotoxicity.

Acknowledgments:This work was supported by the Russian Science Foundation (project №14-50-0029).

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of (bio)Medical Sciences

Antonius Deusinglaan 1
9713 AV Groningen
The Netherlands
Tel +31 50 363 3222
iscoms@umcg.nl
www.iscoms.com

Editorial Committee

ISBN

978-90-367-8687-4

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University Medical Center Groningen, The Netherlands
Antonius Deusinglaan 1, 9713 AV Groningen, The Netherlands
Phone: +31 (0)50 363 32 22, iscoms@umcg.nl, www.iscoms.com

+31 50 363 32 22
ISCOMS@UMCG.NL
WWW.ISCOMS.COM

ANTONIUS DEUSINGLAAN 1
9713 AV GRONINGEN
THE NETHERLANDS

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