

human reproduction

14th WORLD CONGRESS ON HUMAN REPRODUCTION

Melbourne Convention & Exhibition Centre, Melbourne Australia
30 November – 3 December 2011
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and acceptable method for termination of pregnancy up to 63 gestational days with no restrictions as to travel distance.

Predicting Factors for the Successfulness of Embryo Transfer

G.W. MARIADA, A. HINTING

Aim: Embryo transfer (ET) plays an important role for predicting pregnancy outcome during in vitro fertilization. But, data of factors influencing the successfulness of embryo transfer in our country were lack and never has been comprehensively evaluated. This study examines variables that may affect ET in assisted reproductive technology patients who had high-quality embryos transferred in Fertility Center Siloam Hospital, Surabaya, Indonesia.

Methods: This study is an observational study using prospective cohort method. The successfulness of fresh multiple embryo transfer from 327 patients in our center during August 2009 to December 2010 were evaluated for maternal age, catheter type, the clearness of endometrial catheter, and in ultrasound imaging during transfer, day of transfer, number of embryo transferred, adequacy of vesica on ultrasound examination, uterus type, blood on the inner and outer catheter, presence of erosion, difficulty, polyp, and mass, and number of embryo reflux. A univariable Chi Square analysis and further multivariate Logistic regression model were applied with significant level $p < 0.05$ to determine factors predicting the successfulness of embryo transfer.

Result: Maternal age, clear endometrial imaging, day of transfer, the absence of difficulty during transfer and blood on outer catheter were significant influencing the outcome in univariable analysis. After regression, clear endometrial imaging ($p = 0.035$; OR 2.023), day of embryo transfer ($p = 0.000$; OR 1.920), and the absence of difficulty during transfer ($p = 0.030$; OR 0.475) were found as independent predicting factors for successfulness of embryo transfer.

Conclusion: These results suggest that clear endometrial imaging during transfer, as well as day of embryo transfer could independently predict the outcome of embryo transfer in assisted reproductive technology.

Keyword: in vitro fertilization, embryo transfer, ET, assisted reproductive.

The Epigenetics of Art

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Background: Singleton Infants born to in vitro conception are at an increased risk of congenital anomalies, adverse pregnancy outcomes and imprinting disorders compared to those conceived in vivo^{1,2}. Several animal studies demonstrate altered gene expression patterns, imprinting

patterns and phenotypical differences in animals conceived in vitro compared to their in vivo counterparts^{3,4}. MicroRNAs are post-transcriptional regulators of gene expression with an essential role in early embryo development. They are stable extracellularly in exosomes and/or bound to a stabilising protein. They may have a role in cell-to-cell communication⁵.

Objective: 1) To detect the presence / absence of miRNA in human blastocyst culture media and, 2) To compare the miRNA expression profile of individual blastocyst culture media droplets after blastocyst transfer to matched droplets incubated under mineral oil without embryos.

Design: Descriptive study.

Methods: Total RNA was extracted using a hybrid Trizol – affinity column method, optimised for very small miRNA yield. Reverse transcription and quantitative PCR was performed using Taqman primers. Nine microRNAs were profiled, including members from the Let-7 and miR17-92 cluster.

Results: Four microRNAs were consistently amplified from blastocyst culture media. The relative levels of microRNA expression were higher in the post-culture droplets than pre-culture ones. The effect was not observed in embryo-free incubated droplets, excluding the possibility of evaporation.

Conclusion: This study describes for the first time evidence that commercial blastocyst culture media contains microRNAa and that human embryos can secrete microRNAs during culture.

References:

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Friday 2

December 2011

Symposia 12 –
Psychosocial/Nursing

1030 – 1200

Nurses in Assisted Reproductive Technology: A Critical Part of the Chemistry

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Aim: To gain an understanding of factors impacting on Australian ART nursing practice

Method: In accordance with grounded theory methodology, purposive and later theoretical sampling were used to facilitate data collection. Participants were selected because they could convey their perceptions of their clinical practice. In-depth, semi-structured interviews were undertaken until data saturation was achieved with fifteen Registered Nurses who were members of the Fertility Nurses of Australasia (FNA) professional group. A constant comparative approach was used in data analysis.

Results: This research demonstrated that the ART nurse plays a pivotal role, balancing multiple elements to facilitate effective and efficient patient care and cycle management. The data highlights the complexity of the role and how ART nurses balance these influences as they endeavor to optimise outcomes for patients and for the ART unit. One significant research outcome was the impact of interruptions on ART nursing practice. The findings related to this issue suggest that this is a potential area of risk. As such, strategies need to be considered to establish a hierarchy of measures to eliminate or minimise the identified risks.

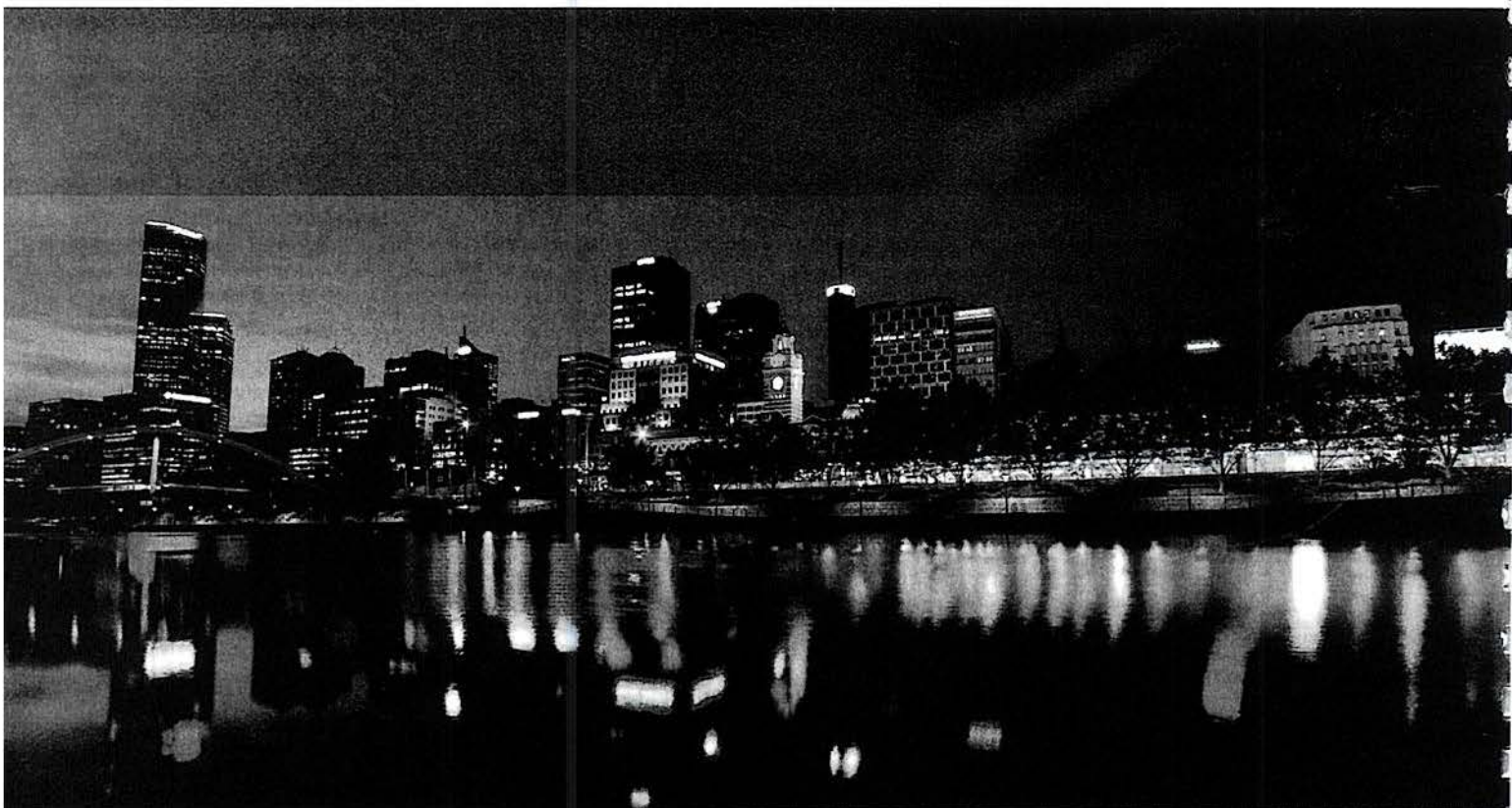
Conclusion: The data collected contributed to an in-depth understanding of ART clinical practice from the nursing perspective. Risk management is a key consideration in all areas of health care. Given the pivotal role that ART nurses play in the co-ordination of treatment cycles it is suggested that it is imperative that strategies are explored to facilitate minimisation of interruptions during critical phases in ART nursing practice.

Midwifery care in the transition from subfertility to motherhood

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