Freeze All for All - Debate

Abha Maheshwari
Consultant Reproductive Medicine and Surgery
Aberdeen Fertility Centre, UK

LEARNING OBJECTIVES
At the conclusion of this presentation, participants should be able to:

- Critical appraisal of literature – with different eyes!
- New data on fresh versus frozen embryo transfer!
- A wholistic approach!
- How a new technology should be introduced?

DISCLOSURE
- Ferring, Cook - educational course funded by Ferring and Honoraria (self)
Freeze All for all – started with big promises!

- Reduced ovarian hyperstimulation
- Improved live birth rate
- Improved obstetric and perinatal outcomes

Reduced hyperstimulation
Improved live birth rates

Live birth rate per cycle

(a)

1.12 (1.01-1.124)

Improved live birth rates - normal responders

NO DIFFERENCE
Improved live birth rate for hyper-responders only
Cumulative Live Birth rate

Roque et al., 2019

Improved obstetric and perinatal outcomes

Small for gestational age
### Large for gestational age

<table>
<thead>
<tr>
<th>Source</th>
<th>Mean Maturity</th>
<th>Large for Gestational Age</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maheshwari et al., 2018</td>
<td>38</td>
<td>1140 1355 1086 1168</td>
<td>3.44 3.67, 3.89</td>
</tr>
</tbody>
</table>

### Pregnancy induced hypertension

**How do we explain this?**

### What has actually happened?

*Freeze all is fallen in same trap!*
New technology in Hype cycle in ART
Pre implantation genetic screening
AMH testing
Time lapse
FREEZE ALL FOR ALL

Lessons from other areas

Government agrees to temporarily ban vaginal mesh implants for women with urinary incontinence
How to introduce new technologies in Lab?

What path Freeze all has travelled?

No High Quality evidence!!!
Patients – Are we forgetting them?

Time to pregnancy
A really important outcome

Intentions and actual behaviour
Lessons from Randomised Trials

Is 40 years long enough?

Long term outcome
FREEZE ALL FOR ALL

LET'S LEARN FROM HISTORY

Freeze All for All - Debate

Abha Maheshwari
Consultant Reproductive Medicine and Surgery
Aberdeen Fertility Centre, UK

Progesterone elevation

<table>
<thead>
<tr>
<th>Different cut offs</th>
<th>Different assays</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1: Serial effect of progesterone elevation on embryo quality</td>
<td></td>
</tr>
<tr>
<td>Study</td>
<td>Cycle</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Effect on embryo quality as well
Cost effectiveness - lessons from PGT

How can we get the right evidence?

- IPD meta-analysis of RCTs
  - Identify the right group where it would benefit

- IPD meta analysis of the registry data
  - Congenital anomalies
  - Neonatal death
  - Preeclampsia
Let’s be an example to other specialities

A speciality where technologies continued to be introduced without proper evaluation