The ability to carry out continuous culture without the need to change or supplement the media over the course of several days allows for fewer manipulations and in the case of time lapse to leave embryos in an optimal environment during the entire culture period. In this prospective sibling study of IVF/ICSI cycles using autologous oocytes and ejaculated sperm, we found that there was no significant difference in the performance of the SAGE 1-Step continuous media when compared to an established product in the market, Global Total.

The cleavage rate, proportion of TQE, blastocyst rate and proportion of TQB was not significantly different between the two media types.

A trend towards increased blastocyst rate and proportion of good quality blastocysts in the SAGE 1-Step group would need to be confirmed with greater numbers.

REFERENCE


The aim of the study was to assess a new to market single step media to an established market leading media without changing media or supplementing media drops to day 5 of culture.

ABSTRACT

Comparative Sibling Study of a New Single Step Culture Media

The aim of the study was to assess a new to market single step media to an established market leading media without changing media or supplementing media drops to day 5 of culture.

OBJECTIVE

The aim of the study was to assess a new to market single step media to an established market leading media without changing media or supplementing media drops to day 5 of culture.

METHODS

A prospective sibling study was performed on 56 cycles of IVF/ICSI using autologous eggs with ejaculated sperm. Oocytes were assigned to either SAGE One-Step or Global Total with the first egg assigned to each media alternatively. Embryos were assessed daily and selection for transfer and cryopreservation made based on our usual protocols.

RESULTS

Cleavage rate (day 3) per zygote (%)

<table>
<thead>
<tr>
<th>Media</th>
<th>% Global</th>
<th>% Total</th>
<th>% SAGE 1-StepTM with SPS</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAGE One-Step</td>
<td>56/262</td>
<td>22/262</td>
<td>95/246 (26/262)</td>
<td>245/254</td>
</tr>
<tr>
<td>Global Total</td>
<td>57/262</td>
<td>23/262</td>
<td>57/246 (23/246)</td>
<td>130/246</td>
</tr>
</tbody>
</table>

Embryos transferred or cryopreserved Day 3

- SAGE One-Step: 13/246 (NS)
- Global Total: 13/246 (NS)

Embryos discarded Day 3

- SAGE One-Step: 3/246 (NS)
- Global Total: 5/246 (NS)

Embryos cultured until Day 5

- SAGE One-Step: 82/246 (202/246) (NS)
- Global Total: 82/246 (202/246) (NS)

Blastocyst rate (day 5) per embryo (%)

- SAGE One-Step: 49 (115/230) (NS)
- Global Total: 49 (115/230) (NS)

Good quality embryos*2 per embryo (%)

- SAGE One-Step: 57 (120/226) (NS)
- Global Total: 57 (120/226) (NS)

Good quality blastocysts*2 per blastocyst (%)

- SAGE One-Step: 54 (200/226) (NS)
- Global Total: 54 (200/226) (NS)

Blastocysts transferred or cryopreserved Day 5

- SAGE One-Step: 58 (202/226) (NS)
- Global Total: 58 (202/226) (NS)

Due to transfer or cryopreservation of embryos on Day 3, cleavage embryo calculations are based on the number of zygotes and blastocyst rate are based on the number of embryos cultured until Day 5 (~ 82% of zygotes).

CONCLUSIONS

The ability to carry out continuous culture without the need to change or supplement the media over the course of several days allows for fewer manipulations and in the case of time lapse to leave embryos in an optimal environment during the entire culture period. In this prospective sibling study of IVF/ICSI cycles using autologous oocytes and ejaculated sperm, we found that there was no significant difference in the performance of the SAGE 1-Step continuous media when compared to an established product in the market, Global Total.

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