The natural conception rate in couples with unexplained or mild male subfertility scheduled for treatment with IVF-SET, IVF-MNC or IUI-COH (INeS trial)

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On behalf of the INeS group

INTRODUCTION

• In couples with unexplained or mild male subfertility IUI-COH and IVF are commonly offered treatments.
• Yet in these couples natural pregnancy chances are known to be substantial.
• Our aim is to investigate natural conception rates in couples scheduled for treatment with IVF with a single embryo transfer (IVF-SET), IVF in a modified natural cycle (IVF-MNC) and IUI-COH

MATERIAL EN METHODS

The INeS study was a randomized controlled trial that included couples with unfavorable fertility prospects and unexplained or mild male subfertility who were allocated to IVF-SET, IVF-MNC or IUI-COH. The primary outcome was a healthy singleton, resulting from a pregnancy achieved within 12 months of follow up.

Couples were allocated to 3 cycles of IVF-SET, 6 cycles of IVF-MNC or 6 cycles of IUI-COH until a live birth within a time horizon of 12 months.

RESULTS

We included 602 couples in the trial: 201 in the IVF-SET group, 194 in the IVF-MNC group and 207 in the IUI-COH group.

There were 257 live births after assisted conception and 76 live births after natural conception.

Baseline characteristics between couples who conceived naturally and those who conceived after treatment were comparable.

Table 1. Baseline characteristics of couples with a live birth

<table>
<thead>
<tr>
<th></th>
<th>Assisted conception</th>
<th>Natural conception</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female age – yr*</td>
<td>33 (3.3)</td>
<td>33 (3.6)</td>
<td>0.14</td>
</tr>
<tr>
<td>Duration of subfertility – yr*</td>
<td>2.1 (1.7-2.8)</td>
<td>2.1 (1.7-3.0)</td>
<td>0.88</td>
</tr>
<tr>
<td>Total motile sperm count*</td>
<td>57 (25-125)</td>
<td>52 (27-94)</td>
<td>0.83</td>
</tr>
<tr>
<td>Primary subfertility**</td>
<td>203 (79%)</td>
<td>52 (68%)</td>
<td>0.06</td>
</tr>
<tr>
<td>Calculated chance of natural conception*</td>
<td>21 (6.3)</td>
<td>22 (6.7)</td>
<td>0.12</td>
</tr>
</tbody>
</table>

* Mean (sd) or median (range: 25% to 75%)
** N (%)

Figure 1. Natural conception rate in couples allocated for IVF-SET, IVF-MNC and IUI-COH

CONCLUSIONS

• A large proportion of couples with unexplained subfertility would reach a successful pregnancy without fertility treatment.
• To fairly evaluate the cost-effectiveness of fertility treatment in these couples we need to include an expectant management policy in the analysis.