Title: INTRAUTERINE INSEMINATION IN WOMEN AGED 38 YEARS AND MORE
Objective: There is an unprecedented increase in the number of couples desiring pregnancy relatively late in life. The objective of the study was to evaluate the effectiveness of intrauterine insemination (IUI) in women >38 y compared to younger women.

Design: Retrospective study.

Materials and Methods: 721 cycles of 251 patients undergoing IUI during the period between January 2003 to July 2005 were examined. There were 202 patients ≤30 years of age, and 49 patients ≥38 years. Patients underwent IUI for ovulatory disorders, tubal, uterine, male or unexplained infertility. Two protocols of ovarian stimulation were used. In one cohort of 177 patients, 502 cycles were treated with Clomiphene citrate (CC) 100mg/day from day 3 till day 7, and in the second cohort, 74 patients, 219 cycles were given highly purified FSH with different doses until the proper follicular size (16-18 mm) was seen.

Results: There were significant differences between the age groups in pregnancy rates for both ovarian stimulation protocols. CC patients <30 y had a pregnancy rate of 25.7% per cycle (70.3% per patient) compared with 10.0% (7.7% per cycle) for women ≥38 y (p<0.001). FSH patients < 30 y had a pregnancy rate of 98.4% (32.7% per cycle) compared with 13.6% per cycle (30.8% per patient) for women ≥38 y.

<table>
<thead>
<tr>
<th>Pregnancy and Miscarriage rate/ patient/ cycle (%)</th>
<th>Age ≤30 y</th>
<th>Age ≥38 y</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC Pregnancy (%)</td>
<td>97/ 138 (70.3 and 25.7%)</td>
<td>12/ 39 (30.8 and 13.6%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>CC Miscarriage (%)</td>
<td>54/ 138 (39.1 and 16.5%)</td>
<td>21/ 39 (53.8 and 34.6%)</td>
<td>0.10</td>
</tr>
<tr>
<td>FSH Pregnancy (%)</td>
<td>63/ 64 (98.4 and 32.7%)</td>
<td>1/ 10 (10.0 and 7.7%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>SH Miscarriage (%)</td>
<td>19/ 64 (29.7 and 9.1%)</td>
<td>1/ 10 (10.0 and 7.7%)</td>
<td>0.27</td>
</tr>
</tbody>
</table>

P<0.05 was considered significant using Chi-square, Fisher's exact test, and Wilcoxon rank sum for comparisons between low and high age groups and by multiple logistic regression analysis to control for type and duration of infertility when comparing groups with respect to pregnancy rate.

No statistically significant difference in miscarriage rate was seen in the low and high age groups in either protocol.

Conclusions: Decreased reproductive potential has been associated with the age and quality of oocytes. ART cannot compensate for the natural decrease in pregnancy rates in aging women. Therefore, it is essential to inform young women of the negative effects of age on their potential fertility.

Support: None.

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