Title: STAGE OF ENDOMETRIOSIS DOES NOT AFFECT INTRAUTERINE INSEMINATION OUTCOME

Objective: There is evidence that endometriosis can and does decrease fertility. Treatment
options include medical therapy, surgical intervention, and assisted reproduction. The relative value of ART based on the stages of endometriosis, however, is untested. The aim of this study was to evaluate the effects of different stages of endometriosis on the outcome of intrauterine insemination (IUI).

**Design:** Retrospective study

**Materials and Methods:** The study group consisted of 114 women with laparoscopically diagnosed endometriosis undergoing IUI between 2003-2005 and 458 non-endometriosis patients (control group) including tubal, ovulatory, male, cervical and unexplained infertility. A total of 1596 cycles were observed and the number of IUI cycles per patient ranged from 1 to 6. Ovulation induction was done using clomiphine citrate (CC), controlled ovarian hyperstimulation by pure FSH and/or HMG or both CC+FSH. 10,000 IU of hCG was given when the dominant follicle reached maturity. A single IUI was performed 36 h after hCG administration. The primary outcomes were: clinical pregnancy rate, miscarriage rate and the number of cycles needed to achieve pregnancy.

**Results:** Women with endometriosis required significantly higher gonadotropin doses compared with non-endometriosis women p<0.001. Patients with endometriosis showed lower pregnancy rates (10.2% vs. 22.0% per cycle) as well as higher miscarriage rates (30.0% vs. 11.2% per cycle) than non-endometriosis patients (p = 0.001)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Non-endometriosis</th>
<th>Endometriosis</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gonadotropin (days)</td>
<td>9.6</td>
<td>3.3</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Cycles/ patient (mean)</td>
<td>2.81</td>
<td>2.69</td>
<td>0.89</td>
</tr>
<tr>
<td>Cycles/ pregnant patient</td>
<td>2.87</td>
<td>2.96</td>
<td>0.85</td>
</tr>
<tr>
<td>Pregnancy / patient / per cycle (%)</td>
<td>266/ 458 (58.1 and 22.0%)</td>
<td>47/ 114 (41.2 and 14.3%)</td>
<td>0.001</td>
</tr>
<tr>
<td>Miscarriage/ patient/ cycle (%)</td>
<td>126/ 458 (27.5 and 11.1%)</td>
<td>64/ 114 (56.1% and 30.0%)</td>
<td>0.001</td>
</tr>
</tbody>
</table>

P<0.05 was considered significant for hCG dose using the Wilcoxon rank sum test and for pregnancy and miscarriage rates per patient using chi-square test.

Mean number of IUI cycles per patient were comparable among the 4 stages in non-endometriosis and endometriosis patients.

**Conclusions:** The presence of endometriosis is associated with poor IUI outcome. Women with endometriosis require more gonadotropin stimulation compared with non endometriosis women. However, the stage of the disease does not affect IUI outcome.

**Support:** None.

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