INTRODUCTION

- Intra-uterine insemination (IUI), generally in combination with ovarian stimulation, is one of the most commonly used infertility treatments.
- Accurate timing of insemination, to coincide with ovulation, has an important impact on success rate.
- Optimal timing of insemination is achieved by either:
  - Monitoring follicular growth through serial ultrasound measurements followed by human chorionic gonadotropin (hCG) administration;
  - Detection of luteinizing hormone (LH) surge by urine LH testing (uLH).
- In cycles where follicular growth is monitored, there is a possibility of premature LH rise before hCG administration, which may affect the outcome of treatment.
- The objective of current study was to determine the frequency of spontaneous LH surges, as measured by urine LH testing, in serial ultrasound-monitored IUI cycles.

MATERIAL AND METHODS

- A pilot prospective study was conducted at OVO FERTILITY clinic from July to October 2009.
- 100 IUI cycles in 89 patients were included and patients with Polycystic Ovary Syndrome excluded.
- Conceivex urine LH kits were used according to a novel algorithm:

  **AN ALGORITHM COMBINING ULTRASOUND MONITORING AND URINARY LUTEINIZING HORMONE TESTING: A NOVEL APPROACH FOR TIMING INTRAUTERINE INSEMINATION**

  **RESULTS**

<table>
<thead>
<tr>
<th>Stimulus</th>
<th>LH+ (%)</th>
<th>hCG (%)</th>
<th>p-value</th>
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</thead>
<tbody>
<tr>
<td>Natural</td>
<td>7 (33.3)</td>
<td>14 (66.6)</td>
<td>0.76</td>
</tr>
<tr>
<td>Clomiphene Citrate</td>
<td>15 (28.8)</td>
<td>37 (71.2)</td>
<td>0.33</td>
</tr>
<tr>
<td>Letrozole</td>
<td>3 (21.4)</td>
<td>11 (78.6)</td>
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</tr>
</tbody>
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  **CONCLUSION**

- A significant proportion of patients undergoing ultrasound-monitored IUI cycle had spontaneous LH surge before ovulation triggering was scheduled.
- A full prospective study should be conducted to determine if, by adding urinary LH testing in addition to ultrasound monitoring, IUI pregnancy rates can be increased.