LNG-IUS - An Incredible Non Surgical Alternative for AUB
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Abstract

Aims and Objective: The aim of this study is to evaluate the efficacy and patient satisfaction among women who were treated with LNG-IUS as conservative management of AUB. Material and method: This was a prospective observational study conducted in 120 women over a period of 5 years who came to the OPD with various complaints like Menorrhagia, Polymenorrhagia, Menometrorrhagia, Dysmenorrhoea etc at Rajdeep Fertility Research Centre and Nursing Home, Kota. They were inserted LNG-IUS as either alone or with D&C, Hysteroscopy followed by insertion. Response was assessed monthly for 3 months then 6 monthly for 2 years by pelvic assessment (to see thread) and ultrasound at every visit. Results: A total of 120 women which were studied were in the age group of 35 to 55 years with the mean age of 42.1 years. Menorrhagia (71.66%) was the most common type of AUB with which the women came to us, followed by Menometrorrhagia, Polymenorrhagia, Dysmenorrhoea. The most common indication for which Mirena was inserted is LNG-O (30.8%) [1-4] followed by AUB-A (19.1%). About 35% women were with Hyperplastic endometrium [5] in whom D&C was done prior to insertion of MIRENA, AUB-L (6.6%), AUB-P (8.3%), AUB-O (25%). It proved to be a boon in women with Menorrhagia and who were Medically unfit (5.8%). There was decrease in menstrual blood loss in 73% of the patients by 3 months and 97% of the patients by 6 months and 88.3% patients achieved amenorrhoea by 1 year [1-4]. Keywords: LNG-IUS, Menorrhagia, hysterectomy & endometrial resection, polymenorrhagia, menometrorrhagia, dysmenorrhoea, HPE, PID, fibroid, adenomyosis, endometrial polyps, D&C, hysteroscopy, TVS, MBL.

INTRODUCTION

AUB constitutes a considerable problem for many women resulting in discomfort, anxiety & disruption of life of sufferer. About 30% of the women in reproductive age group suffer with AUB. 60% of this women will ultimately undergo hysterectomy. Surgical procedures such as hysterectomy & endometrial resection are often used to treat AUB, but these can be costly, traumatic, risky & sometimes unnecessary. The drugs used for treatment of AUB have a wide range of undesirable side effects, may have to be used for long periods & effectiveness of some drugs is uncertain. The Levonorgestrol releasing intrauterine system (LNG-IUS) provides an efficacious, satisfactory & cost effective choice in the treatment of AUB [1-4, 7], comparative to drug therapy and is associated with significant reduction in menstrual blood loss.

Aims & Objectives

1. The aim of this study is to evaluate the efficacy and patient satisfaction among women who were treated with LNG-IUS as conservative management of AUB and Women who were not fit for Major Surgery like Hystectomy.

MATERIAL AND METHOD

1. Prospective observational study conducted in 120 women over a period of 5 years from July 2013 to July 2018.
2. The complaints with which patients came to OPD Menorrhagia, Polymenorrhagia, Menometrorrhagia, Dysmenorrhoea etc at Rajdeep Fertility Research Center and Nursing Home, Kota, Rajasthan, India were included in the study.
Inclusion Criteria
- Uterine size < 12 weeks,
- Age 30 to 55 yrs
- No cervical or vaginal pathology
- In women > 40 yrs D&C and Hysteroscopy was done.
- HPE report Negative

Exclusion Criteria
- Contraceptive uses were excluded
- Women with acute PID
- Uterine Anomaly
- Intramural and Subserous fibroid > 3 cm
- Submucous fibroid distorting the cavity shape.
- Menorrhagia due to pregnancy complications.

Method of Insertion
- A detailed history, examination (general, systemic, pelvic) was done.
- TVS was done and any obvious pathologies like fibroids, adenomyosis, endometrial polyps etc were diagnosed.
- LNG-IUS was inserted post menstrually on day [4-7].
- We inserted LNG-IUS as either an alone or D&C followed by LNG-IUS insertion. In some patients partial TCRE was done and then LNG-IUS was inserted. Those with endometrial polyp, hysteroscopic removal was done and then LNG-IUS was inserted.
- The efficacy of LNG-IUS was measured in the form of subjective symptomatic improvement and quality of life.
- For the first 3 months progesterone was given orally also for support in few patients.
- In 1 patient of Endometriosis and Adenomysis 2 doses of Leupride depot was given.

Post-insertion- The pts. were asked to maintain a menstrual calender.
- Response was assessed monthly for 3 months then 6 monthly for 5 years.
- A detailed general examination, pelvic assessment (to see thread) at every visit.
- Follow up - ultrasound done at every visit to see the location of LNG-IUS or changes in the original pelvic pathology.

Sonographic Evaluation

RESULT

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-40</td>
<td>36</td>
<td>30</td>
</tr>
<tr>
<td>41-50</td>
<td>70</td>
<td>58</td>
</tr>
<tr>
<td>51-60</td>
<td>14</td>
<td>11.6</td>
</tr>
</tbody>
</table>

- The Mean age of the Patents was 42.1 Years
- Majority of the women belonged to the age group 41 to 50 Years

<table>
<thead>
<tr>
<th>Parity</th>
<th>Number (n=92)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nullipara</td>
<td>1</td>
<td>.83</td>
</tr>
<tr>
<td>Primipara</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>Multipara</td>
<td>101</td>
<td>84.16</td>
</tr>
</tbody>
</table>

- Maximum no of the patients were multipara (84.16 %)
Majority of the patients came with the complaint of menorrhagia (71.6%) followed by menometrorrhagia (16.1%).

About 3.3% patients were worry some of dysmenorrhoea.

### Table: Symptoms

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Number of patients (n=92)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Menorrhagia</td>
<td>86</td>
<td>71.66</td>
</tr>
<tr>
<td>Menometrorrhagia</td>
<td>20</td>
<td>16.6</td>
</tr>
<tr>
<td>Polymenorrhagia</td>
<td>10</td>
<td>8.3</td>
</tr>
<tr>
<td>Dysmenorrhoea</td>
<td>4</td>
<td>3.3</td>
</tr>
</tbody>
</table>

### Table: Profile of uterine size

<table>
<thead>
<tr>
<th>Uterine size</th>
<th>Number (n=92)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>48</td>
<td>40</td>
</tr>
<tr>
<td>Bulky uterus</td>
<td>30</td>
<td>25</td>
</tr>
<tr>
<td>6 to 8 weeks</td>
<td>30</td>
<td>25</td>
</tr>
<tr>
<td>8 to 10 weeks</td>
<td>10</td>
<td>8.3</td>
</tr>
<tr>
<td>10 to 12 weeks</td>
<td>2</td>
<td>1.6</td>
</tr>
</tbody>
</table>

### Table: Indications (according to AUB classification)

<table>
<thead>
<tr>
<th>Indications</th>
<th>Number (n=92)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUB-P (Polyp)</td>
<td>10</td>
<td>8.3</td>
</tr>
<tr>
<td>AUB-A (Adenomyosis)</td>
<td>23</td>
<td>19.1</td>
</tr>
<tr>
<td>AUB-L (leiomyoma)</td>
<td>8</td>
<td>6.6</td>
</tr>
<tr>
<td>AUB-M (malignancy &amp; Hyperplasia)</td>
<td>42</td>
<td>35</td>
</tr>
<tr>
<td>AUB-O (Ovulatory dysfunction)</td>
<td>30</td>
<td>25</td>
</tr>
<tr>
<td>Medically Unfit</td>
<td>7</td>
<td>5.8</td>
</tr>
</tbody>
</table>

### Table: Response in the form of MBL

<table>
<thead>
<tr>
<th>Duration</th>
<th>Number</th>
<th>Percent (%)</th>
<th>Number</th>
<th>Percent (%)</th>
<th>Number</th>
<th>Percent (%)</th>
<th>Number</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 month</td>
<td>31</td>
<td>26.7%</td>
<td>3</td>
<td>2.5%</td>
<td>1</td>
<td>.86%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6 month</td>
<td>30</td>
<td>25.8%</td>
<td>9</td>
<td>7.7%</td>
<td>6</td>
<td>5.1%</td>
<td>4</td>
<td>3.4%</td>
</tr>
<tr>
<td>1 year</td>
<td>55</td>
<td>47.4%</td>
<td>21</td>
<td>18.1%</td>
<td>12</td>
<td>10.3%</td>
<td>10</td>
<td>8.6%</td>
</tr>
<tr>
<td>3 year</td>
<td>83</td>
<td>71.5%</td>
<td>97</td>
<td>80.3%</td>
<td>102</td>
<td>87.93%</td>
<td>112</td>
<td>96.5%</td>
</tr>
</tbody>
</table>

Out of 120 pts, 3 failed to respond to LNG-IUS in the first year.

LNG-IUS was subsequently removed and they underwent hysterectomy.

Heavy Bleeding persist in very few (.86%) with delayed cycle.

One case of Severe Endometriosis LNG-IUS inserted for 1 year followed by treatment for Sec. Infertility.

### Discussion

Excessive menstruation is often incapacitating and expensive to treat and can severely affect woman’s quality of life.

AUB can occur in any phase of life but it mostly occurs in peri menopausal age group.

The mean age at which AUB occurred in our study was 42.1 yrs

There was about 73.2% decrease in MBL in Pt. by 3 months [8, 10, 15].

- At 6 months 89.6% decrease in MBL [11].
- At 2 yrs 98% had achieved Amenorrhoea

In our study all the patient were relieved of Dysmenorrhoea.

In our study Leiomyoma was found in 6.6% cases

- Adenomyosis – 19.1% [9]
- Polyp 8.3%
- Endometrial hyperplasia 35% [6, 12]
- Ovulatory dysfunction 25%
- One case of Post Menopausal Bleeding after H.P Report negative LNG-IUS inserted [13].
- A case of Hemiparasis with CVA with Menorrhagia LNG-IUS inserted 5 Years back.
which was removed and Reinserted 1 month back [14].

- A case of Renal transplant with AUB-A was advised Hysterectomy uterine uterine size 12 week as the pt. not fit for surgery. LNG-IUS inserted 5 Years back now 51 years old with Menopausal Levels of FSH, LH.

**CONCLUSION**

LNG IUS is an effective and well tolerated treatment modality for AUB.

- LNG –IUS is easy to insert, has a sustained effect, cost effective and well tolerated.
- It is a novel therapeutic alternative to hysterectomy for AUB.

**REFERENCES**


