TO ASSESS THE COST EFFECTIVENESS OF RAJHAPRAVARTINI VATI IN MANAGEMENT OF PCOS PATIENTS WITH REFERENCE TO THEIR OVULATION STUDY.

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Keywords- Rajhapravartini vati, Polycystic Ovary, Ovulation, Follicle

Introduction-

Diseases pertaining to the reproductive system of the women are becoming increasingly common because of modern ways of lifestyle. Modern women are forced to face higher level of stress as they are not only home makers, but are also working women. First and foremost to show systemic abnormal functioning under increased stress is Endocrine system, which in turn affects the menstrual cycle. Thus menstrual abnormalities are becoming increasingly common among working women.

Polycystic ovarian syndrome (PCOS) is a heterogeneous disorder characterized by menstrual Irregularities, may cause infertility.

Available treatments for PCOS are quite expensive & non affordable to common people

Or may require expensive surgical intervention & duration of treatment is of long term. Management of PCOS is difficult for pt. psychologically & economically.

Aim of Study-

To assess the cost effectiveness of Rajhapravartini vati in management of PCOS pt. with reference to their ovulation study.

Study objective-

1. To Evaluate the costeffect of Rajahpravartini Vati in the treatment of patients having PCOS.
2. To study the effect of Rajahpravartini Vati on Ovulation process in patients having PCOS
   With the help of USG for Follicular study.
3. To evaluate cost of therapy with the use of Rajahpravartini Vati in comparison with Modern management of PCOS.

Methodology-

1) Material & Methods

A. Raw materials required for the study was obtained and screened.

1. Shodhana of hingu (Ferula narthex boiss) by frying with ghrita
2. Shodhana of Kaseesa by nimbu swarasa bhavana.
3. Shodhana of Tankana 3a

B. Preparation of “Rajahpravartini vati”.1

Shuddha Hingu, Shuddha Kaseesa, Shuddha Tankana and Kanyasara was taken in equal quantity. All the ingredients was processed in Kumari swarasa (Aloe vera Linn) for 3 days and 3 ratti (375mg) weighing vati was prepared according to guide line given in Bhashaiyya ratnavali.
2) **Study Methodology**

A. Study design - Open label, single center prospective  
B. Sample size - 50  
C. Study duration - 12 Month.  
D. Study site - SSAM&H NASHIK.  
E. Method  
F. Drug was prepared as per Ayurvedic guidelines.

**Selection of Patients as followed Criteria**

**Inclusion Criteria:**

- Patient willing to give voluntarily free written informed consent  
- Female patient having age group between 18yrs to 35yrs.  
- Patient diagnosed with known case of PCOS.  
- Patient having anovulatory cycle diagnosed by USG.  
- Patient having Dysmenorrhoea.

**Exclusion Criteria:**

- Hypersensitivity or idiosyncratic reaction to any drugs or herbal products.  
- Congenital deformities of reproductive system.  
- History of allergic condition.  
- History of autoimmune disorder r.g. systemic lupus erythematosus, Haemolytic anemia, RA  
- History of psychiatric disorders  
- Intake of any medication within 14th day before start of the study  
- Subjects who are scheduled to undergo hospitalization for surgery during the study period  
- Presence of clinically significant abnormal laboratory results during screening  
- Pregnancy or breast feeding  
- Females of child bearing age potential not using medically accepted contraceptive measures as judged by investigator  
- Use of any reactional drugs or history of drug addiction  
- Patient not willing to give informed consent.

In 25 Pts drug administered orally on 10th day of Menstruation cycle  

**Observation & Result**

**Table 1.1** - From 10th day of menses  

In 25 pts. Drug administered orally after 18mm follicular size
First group of 25 pt. was treated with the drug from 10\textsuperscript{th} day of cycle, 23 pt. shows Ovulation in between 10\textsuperscript{th} to 19\textsuperscript{th} day(92%) 2pt. shows ovulation after 20\textsuperscript{th} day(9%)  

Table 1.2 -After 18 mm Follicles

Second Group of 25 pt. which was treated after the follicular size become 18mm, 24pt. Shows ovulation (96%). 1pt. having ovulation after 21th day(4%)
Table 2.1 From 10th day of menses

In first group after drug administration 22pt. (88%) ovulate within 8 days.
2pt. (8%) after 11th day
1 pt. (4%) reported no change up to 21th day.

Table 2.2 - After 18 mm Follicles

In second group within 3 days 19pt. (76%) ovulate after 3 days
6pt. (24%) ovulate after 3 days
Table 3.1 - From 10th day of menses

![Endometrial thickness in mm](chart1.png)

<table>
<thead>
<tr>
<th>Axis Title</th>
<th>0.5 to 2 mm</th>
<th>2.1 to 3 mm</th>
<th>3.1 to 6 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
<td>32%</td>
<td>12%</td>
<td>56%</td>
</tr>
</tbody>
</table>

In first group endometrium growth 0.5 to 2 mm 8 pt. (32%)
2.1 to 3 mm in 3 pt. (12%)
3.1 to 6 mm in 14 pt. (56%).

Table 3.2 - After 18 mm Follicles

![Endometrial thickness in mm](chart2.png)

<table>
<thead>
<tr>
<th>Axis Title</th>
<th>0.5 to 2 mm</th>
<th>2.1 to 3 mm</th>
<th>3 to 6 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
<td>76%</td>
<td>16%</td>
<td>8%</td>
</tr>
</tbody>
</table>

In second group growth 0.5 to 2 mm in 19 pt. (76%)
2.1 to 3 mm in 4 pt. (16%)
3 to 6 mm in 2 pt. (8%)
Table 4.1 - From 10th day of menses

Patients treated with drugs on 10th day there USG reports shows 35 total follicles
24 Follicles undergoes ovulation satisfactory 68%
3 Follicles shows haemorrage 9%
8 Follicles shows no change 23%

Table 4.2 - After 18 mm Follicles

<table>
<thead>
<tr>
<th>No. of Ovulated Follicles</th>
<th>No Haemorrage Seen</th>
<th>No Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series 1</td>
<td>72%</td>
<td>13%</td>
</tr>
</tbody>
</table>
Patient treated with drug after 18 mm of follicles USG report shows total 72 follicles out of which 52 follicles undergoes ovulation highly satisfactory 72%

9 follicles resulted in haemorrage 13 %

11 follicle reported no change 15%

Discussion

- First group of 25 pt. was treated with the drug from 10th day of cycle, 23 pt. shows ovulation in between 10th to 19th day(92%) & 2 pt. shows ovulation after 20th Day(8%). Group second of 25 pt. which was treated after the follicular size become 18mm, 24 pt. Shows ovulation between 10th to 19th day (96%). 1 pt. having ovulation after 21th day(4%)
- In first group after drug administration 22 pt.(88%) ovulate within 8 days. 2 pt.(8%) after 11th day & 1 pt.(4%) reported no change up to 21th day. In second group within 3 days 19 pt.(76%) ovulate after 3 days 6 pt.(24%) ovulate.
- Endometrial thickness ….In first group growth 0.5 to 2 mm in 8 pt.(32%). 2.1 to 3 mm in 3 pt.(12%) & 3 to 6 mm in 14 pt.(56%). In second group growth 0.5 to 2 mm in 19 pt.(76%). 2.1 to 3 mm in 4 pt.(16%) & 3 to 6 mm in 2 pt.(8%)
- Maximum 10 days 1 BD total cost is Rs. 10/- per month (. for 3 month Rs. 30/-)

➢ Conclusion-

Cost of modern line of treatment & Rajah pravertini vati is as follow

<table>
<thead>
<tr>
<th>PURPOSE</th>
<th>DRUG</th>
<th>COST FOR 3 MONTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>TO TRIGGER OVULATION</td>
<td>i. Tab. Fertyl 50 mg</td>
<td>120Rs/-</td>
</tr>
<tr>
<td></td>
<td>ii. INJ. HCG 5000 IU</td>
<td>1350Rs/-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCOS TREATMENT</td>
<td>i. Tab. Krimson 35</td>
<td>705Rs/-</td>
</tr>
<tr>
<td></td>
<td>ii. Tab. Overl-1</td>
<td>192Rs/-</td>
</tr>
<tr>
<td></td>
<td>iii. Tab. Metformin 500mg</td>
<td>225Rs/-</td>
</tr>
<tr>
<td>TO WITHDRAWL</td>
<td>i. Tab. Primolute-N</td>
<td>183Rs/-</td>
</tr>
<tr>
<td></td>
<td>ii. Tab. Deviry 10mg</td>
<td>165Rs/-</td>
</tr>
<tr>
<td>PCOD DRILLING</td>
<td>i. SURGICAL INTERVENTION</td>
<td>15000 TO 20000Rs/-</td>
</tr>
<tr>
<td>Study of Drug</td>
<td>i. RAJAH PRAVARTINI VATI</td>
<td>30Rs/-</td>
</tr>
</tbody>
</table>
Result-

- Observation shows that the drug rajahpravartini vati is cost effective to trigger ovulation.
- In the management of PCOS ovulation in normal duration.
- Rajahpravartini vati successfully works on ovulation in turn to reduce the rate of infertility.
- Minimum hemorrhagic cyst or hemorrhage.
- Avoid formation of cyst.

Previous Work-

- Dr. Kotbagi (1998) To study efficacy of rajpravartini vati in rajorodha Pune.

References:

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