“Clinical Efficacy Of Ayurveda Treatment On Polycystic Ovarian Syndrome”

1. Dr. Bhagyashri Mahavir Khot, 2. Dr. Meenal Dipak Lad, 3. Dr. Arun Jagannath Patil, 4. Dr. Anil Chindhu Kakad

(Asso. Professor Streerog-Prasutitantra Dept. R.A. Podar Medical College Worli Mumbai).
(Prof.&Head Dravyaguna Dept. College Of Ayurved And Research Center Nigadi). 1
(Asso. Professor-Streerog-Prasutitantra Dept. R.A. Podar Medical College Worli Mumbai)2
(P.G.Scholar Streerog-Prasutitantra Dept. R.A. Podar Medical College Worli Mumbai)3

ABSTRACT: Polycystic ovarian syndrome (PCOS) also known by the name of stein-leventhal syndrome. Incidence of this condition is growing amongst young women in reproductive age. It is almost ranging between 5-10% of young women coming for infertility, it is now increasingly perceived as disorder of changed life styles and is a rainbow metabolic syndrome. Research shows that history of gestational diabetes 40% are cases at PCOS. Death rates amongst PCOS due to diabetes mellitus and metabolic syndrome 5:1 to normal population, excessive exposure to estrogen unopposed by progesterone could cause greater incidence of malignancies endometrium and breast. Infertility is by far the most common feature due to anovulation, therefore the present study was carried out for clinical evaluation of the efficacy of ayurveda treatment on PCOS. The treatment was conducted for duration of 3 months the response to the treatment was recorded by parameters, the result revealed that PCOS can be cured by successfully by using this ayurvedic regimen

KEY WORDS: Polycystic Ovarian Syndrome, Endocrine Disturbance, Herbal Compound, Dashmool Decoction, Til Tail, Sahchar Tail, Shatavari Tail

I. INTRODUCTION

Polycystic ovarian syndrome is a most prevalent endocrinopathy. Incidence of this disease is increasing now a days because of sedentary lifestyles, pollution, excessive intake of junk food. It is obviously observed in women seeking medical advice for infertility as well as irregular menstrual bleeding. Majority of these cases could be treated either by hormonal therapy or surgical intervention, this study will emphasize on careful management of polycystic ovarian syndrome. Polycystic ovarian syndrome is a condition where a hormonal imbalance affects follicular growth during the ovarian cycle causing the affected follicles to remain in the ovary. The retained follicle forms into a cyst & with each ovarian cycle a new cyst is formed leading to multiple ovarian cyst ultrasonic morphologic evidence of > 12 follicles measuring 2.9mm diameter in single plane during quiescent phase of ovary i.e. 2.7 days of cycle associated with obesity, oligomenorrhoea, anovulation & hyperandrogenism, hyperinsulinemia- increased level of insulin in the blood is due to density of cells to insulin, a factor present in the blood stimulates androgen secretion by the ovarian stroma, the connective tissue of ovarian tissue of ovary & reduces serum sex hormone binding globin (SHBG) causing increased levels of free testosterone. Due to the presence of increased androgen in the ovary, the follicle undergoing maturation in the ovarian cycle is affected causing anovulation of particular follicle.

The ovarian cycle is governed by a hormonal feedback system moderated by the hypothalamus thus it requires constant feedback of hormonal for it to properly regulate the release of follicle stimulating hormone (FSH), lutenizing hormone (LH) from the anterior pituitary gland. The hormonal feedback that the hypothalamus is receiving is due to high levels of oestrogen that has been formed from free androgens in the peripheral tissue. Ayurveda suggests that this is vata type disorder (Apan vayu) though the involvement of other dosha can be there but in some measure because the gynaecological disorder is mainly supposed to be due to vitiation of pita. PCOs Is A Disorder Involving Pitta, Kapha, Medas, Ambhuvahasrotas & Artava Dhatu. The causes of PCOS as per ayurveda can be taken as eating excessive sweet and kaphagenic foods, mandagni because of this is kapha getting aggrevated in PCOS, we find kapha disorder. As well as pitta and vata dosha disorder. Because of all three doshas play important & distinctive role in the production, development, maturation & release of ovum & therefore the ovarian cycle & menstrual cycle is under control of three doshas.

The selected trial drug was decided according to dosha dushta & hypothesized samprapti.
1.1. Aims & Objective
- To verify the efficacy of ayurvedic treatment regimen on polycystic ovarian syndrome (PCOD).
- To observe the rate of conception or fertilization and rule out other causes of infertility.
- To provide safe, cost effective, non surgical, non HRT treatment.

1.2. Materials & Methods
Total 40 patients were registered from OPD of the streerog & prasutitantra dept, of R.A. Podar medical college, worli Mumbai, fulfilling the criteria of selection were included into study. Approval of the institutional ethics committee was taken.

1.3. Inclusion Criteria
- Married patients (Age group 20-40yrs)
- Infertility patient
- PCOD.
- Irregular menses / scanty menses due to anovulatory cycle
- Anovulatory cycle
- Elevated LH
- LH:FSH ratio >3.
- Clinical or biochemical evidence of Hyperandrogenism.

1.4. Exclusion Criteria
- Unmarried patients
- Cervical tumour, polyp, Ca cervix
- Uterine fibroid
- Congenital anomalies in female genital tract
- Tubercular endometritis
- Congenital adrenal hyperplasia.
- HIV/VDRL/HbsAg positive
- Malignant diseased patients and cytotoxic patients.
- Other gynaecological disorder.

1.4. Discontinuous Criteria
- An acute or severe illness.
- Patient left against medical advice.

1.5. Subjective and objective parameters
A) Subjective parameters

1. Duration of bleeding-(Table 1)

<table>
<thead>
<tr>
<th>Duration</th>
<th>Grade</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-5 days</td>
<td>Nil</td>
<td>0</td>
</tr>
<tr>
<td>1-2/6-7days</td>
<td>Mild</td>
<td>1</td>
</tr>
<tr>
<td>1/8-9days</td>
<td>Moderate</td>
<td>2</td>
</tr>
<tr>
<td>Spotting &gt;9 days</td>
<td>Severe</td>
<td>3</td>
</tr>
</tbody>
</table>

Bleeding 1 or above days are considered as bleeding throughout the day. spotting is considered as bleeding just 2 or 3 drops.

2. Irregular menstruation-(Table 2)

<table>
<thead>
<tr>
<th>IMP days</th>
<th>Grade</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>28 days</td>
<td>Nil</td>
<td>0</td>
</tr>
<tr>
<td>28-45 days</td>
<td>Mild</td>
<td>1</td>
</tr>
<tr>
<td>45-60 days</td>
<td>Moderate</td>
<td>2</td>
</tr>
<tr>
<td>Above 60 days</td>
<td>Severe</td>
<td>3</td>
</tr>
</tbody>
</table>
Clinical Efficacy Of Ayurveda.....

3 Amount of bleeding and quantity of menstrual blood-(table 3)

<table>
<thead>
<tr>
<th>No of pad per cycle</th>
<th>Grade</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;15</td>
<td>Nil</td>
<td>0</td>
</tr>
<tr>
<td>15-19</td>
<td>Mild</td>
<td>1</td>
</tr>
<tr>
<td>20-25</td>
<td>Moderate</td>
<td>2</td>
</tr>
<tr>
<td>&gt;25</td>
<td>Severe</td>
<td>3</td>
</tr>
</tbody>
</table>

4 Pain during menstrual period-(Table 4)

<table>
<thead>
<tr>
<th>Pain</th>
<th>Grade</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>No pain</td>
<td>Nil</td>
<td>0</td>
</tr>
<tr>
<td>Menstruation is painful but daily activities are not affected, no need of analgesic.</td>
<td>Mild</td>
<td>1</td>
</tr>
<tr>
<td>Daily activities are affected, need to take analgesics.</td>
<td>Moderate</td>
<td>2</td>
</tr>
<tr>
<td>Daily activities are inhibited, pain continuous after taking analgesic.</td>
<td>Severe</td>
<td>3</td>
</tr>
</tbody>
</table>

B) Objective Parameter

1 Haematological investigations -
- CBC, ESR.
- Blood group
- HIV/ VDRL/ HbsAg
- BSL (FPP)
- Urine (R/M)
- LH, FSH ratio.

2. USG (Pelvis & Abdomen):

3. Follicular study- A serial vaginal or abdominal sonography was done from 10th day of menstrual cycle, till after ovulation.

II. TREATMENT PROTOCOL

Standardization & authentication of drug will be done. The treatment was conducted in following way for duration of 3 months. Patient were treated with 5 gm of powder of Ashoka (Saraka Indica), Manjistha (Rubia Cordifolia), Shalmauli (Bombax Malbaricum), Lodhra (Symplocos Racemosus), Rasanjan (Barberis Chitra), Sariva (Hemidesmus Indicus), Gokshur (Tribulus Teristris), Punarnava (Boerhavia Diffusa), Nagkesari (Mesua Ferea), Chandan (Santalum Alba), Amalaki (Embelica Officinalis), Haridra (Curcuma Longa), Gudmar (Gymnema Sylvestre), Guduchi (Tinospora Cordifolia) Methi (Trigonella Foenum Gaecum), Vijaysar (Pterocarpus Marsupium), twice a day in the morning & evening at 6 pm. These herbs are also quite beneficial in crubing three aggravated dohas.

Before menses patient were treated with yog basti (dashmool kwatha & til tail) for three consecutive cycles. After cessation of menstruation uttarbasti (shatavari oil & sahachar oil) is used for 3 days, in one cycle was given for three consecutive cycles. A patient is admitted for uttarbasti after cessation of menstruation. Snehana (oleation) of til oil on lower abdomen, back & lower limbs followed by nadisweda (fomentation) with steam on lower abdomen & back was given to patients before each uttarbasti. Yoniprakshalana with Triphala kwatha was performed to sterilise perivaginal part, the procedure was carried out in minor OT the oils & instruments were autoclaved. Patients advised for consumption of vegetables preferred karela & drumsticks, avoid oily & spicy food, sweets & honey because food is integral part of the overall health. PCOS may eliminated or aggravated by the foods which are consumed, basically garlic, onion are beneficial for PCOS patients. Regular exercise, suryanamaskara, sarvangasana, paschimottanasana, ardhamatsyendrasana, matsyasana, ushtrasana all backward bending asanas are recommended for PCOS patients. Follow up study was done for 3 months at interval of every month & for pregnancy follow up study was carried out for 3 months after completion of the treatment. Any new complaint that raised during the follow up period releated to the study was also noted.

2.1. End Point

If some complication developed during treatment it was decided to stop treatment.
Clinical Efficacy Of Ayurveda.....

III. OBSERVATIONS

In the patient study 74.50% patients were housewives & 25.50% were professionals. 90% patients were not using any contraceptive method while 10% used condom & natural methods. In the treatment period all the patients had not taken any kind of medicineage Patients complained mostly irregular, few or absent menstruation, scanty or less menstrual blood, dysmenorrhea, acne, obesity, hirsutism. Assessment criteria was based on the gradation of symptoms, the cardinal symptom which are irregular menstruation duration of bleeding, dysmenorrhea, quantity of menstrual blood, hirsutism, acne, & obesity before & after treatment. Data was analyzed by using paired ‘t’ test. LH/FSH hormone report revealed that the ratio came to the normal level. Report revealed that reduce of polycystic appearance of ovaries and improvement of follicular maturity.

Result-(Table 6)-

<table>
<thead>
<tr>
<th>Symptom</th>
<th>N (n)</th>
<th>Mean score B.T.</th>
<th>Mean score A.T</th>
<th>Relief %</th>
<th>SD</th>
<th>SE</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Irregular menstruation</td>
<td>40</td>
<td>2.475</td>
<td>0.250</td>
<td>2.275</td>
<td>76</td>
<td>0.733</td>
<td>0.116</td>
</tr>
<tr>
<td>2. Duration of bleeding</td>
<td>40</td>
<td>2.350</td>
<td>0.425</td>
<td>1.925</td>
<td>57.5</td>
<td>0.5723</td>
<td>0.0905</td>
</tr>
<tr>
<td>3. Dysmenorrhea</td>
<td>40</td>
<td>1.000</td>
<td>0.050</td>
<td>0.90</td>
<td>92</td>
<td>0.579</td>
<td>0.0944</td>
</tr>
<tr>
<td>4. Quantity of menstrual blood</td>
<td>40</td>
<td>1.900</td>
<td>0.150</td>
<td>1.750</td>
<td>70</td>
<td>1.104</td>
<td>0.174</td>
</tr>
<tr>
<td>5. Hirsutism</td>
<td>40</td>
<td>1.950</td>
<td>1.875</td>
<td>0.075</td>
<td>-</td>
<td>0.2667</td>
<td>0.0422</td>
</tr>
<tr>
<td>6. Obesity</td>
<td>40</td>
<td>1.700</td>
<td>0.200</td>
<td>1.500</td>
<td>85</td>
<td>0.5991</td>
<td>0.0947</td>
</tr>
</tbody>
</table>

From the observation made before & after the treatment following inference are drawn. The symptoms like irregular menstruation improved by 76%, At the end of treatment 57.5% patients had normal duration of menstrual bleeding, 92% of patient was relieved from dysmenorrhea, 70% patients had average quantity of menstrual blood. In obese patients 85% had normal BMI level. But in hirsutism there was no statistically significant result seen.

IV. DISCUSSION

According to ayurveda PCOS is a disorder involving pitta, kapha & vata doshas. Rasa & meda dhatu, rasa, rakta & artava vaha strotasa. The given treatment works to improve hormone utilization & regulates overall hormone balance. The powder of herbal drugs are also quite beneficial in curbing the three aggravated doshas & brings balance & strength to the menstrual system & it helps to regulate artava dhatu. The properties of deepana & pachana of above drugs they elevate the jatharagni, dhatwagni as well as artavagni. Powder of guduchi enhances the overall immunity & atibala has properties of prajasthapana, garbhashayadaurbalyahara, balya bruhana & ojovardhana. Therefore at the end of 6 months 62% patients get conceived and avoid miscarriage. There is also kapha reducing, insulin enhancing & hormone rebalancing, drugs helps to relieve the symptoms PCOS. Due to basti the treatment principle is to clear obstruction in pelvis, normalize metabolism & regulate menstrual system. Artava dhatu) uttarbasti is most effective treatment in gynecological disorders. Shatavari oil & sahachar oil contains til oil & its very good for menstrual problems. Its polysaturated fatty acid which ultimately intensify the penetration of oil based substances through cell membrane which is composed of lipid bilayer which has inherent capability of movement & this movement is directly proportional to temperature, this may be the reason to heat the oil in mild temperature before administration of uttarbasti.

General basti regulates the nervous control & uttarbasti regulates CNS controlling the pelvic organs. Hence by governing HPO axis through hypothalamus it helps in maintenance of follicular growth (oil of sahachara were helped to destroy cysts in ovaries & stimulates the follicular maturity). Oil of shatavari were helped to bring balance & strength to the menstrual system because it contains phytooestrogens.

V. CONCLUSION

In case of PCOS 87% patients were successfully get cured. 62% patients had conceived within the follow up period of 3 months. No significant complication is evident in study. It is non surgical & non hormonal treatment. In conclusion PCOS can be cured by using ayurvedic treatment regimen.
BIBLIOGRAPHY

Ayurvedic Texts:
[16]. Ramanath Ramanath Dwivedi, Stri - rog vigyan, Chaukhambha Sanskrit Series.
[17]. Jahnansinha Chauhan, Stri - rog chikitsa, Chaukhambha Sanskrit Series.
[18]. Jahnanshing chavan, Stri – rog chikitsa, Chaukhambha Sanskrit Series.
[20]. Nirmala Joshi, Ayurvedic concepts in Gynaecology, Varanasi, 1965
[21]. Rajendra Prakash Bhatnagar, Abhinav stri - rog vigyan - suryaprakashan vdaypan
[22]. Shivakhanna Khanna, Sachitra stri - rog chikitsa, Chaukhambha Sanskrit series.
[23]. Anundatta and Hemadri, ‘Survasangasudari and Ayurvedic拉斯ayana’ Comm. On

MODERN TEXTS-
[6]. Anonymous, Database on medicinal plants used in Ayurved, Published by Central Council for Research in Ayurveda and Siddha.Dept of ISM & H, Ministry of Family health and welfare, Govt of India. Vol 8, pg 419

JOURNALS-
☐ Joural Inst che India, 1973, 45, 205.

WEBSITES-
[1.] www.wikipedia.com
[2.] www.emedicine.com
[3.] www.herbalinformation.com
[4.] www.chakrapaniayurveda.com