A COMPARATIVE CLINICAL STUDY TO EVALUATE THE EFFICACY OF SHADUSHNA KWATHA AND KANASATAHWATI KWATHA IN PCOS

Durga Chandran¹, Vandana Baranwal²

¹PG scholar, ²HOD, Department of PG studies in PrasutiTantra and StreeRoga, Alva’s Ayurveda Medical College, Moodbiri, Karnataka, India

Email: dr.durgachandran@gmail.com

ABSTRACT

PCOS is considered as a hyperglycemic condition. Although exact etiology of PCOS is not known, it is a condition with several hormonal disturbances including hyperandrogenemia, insulin resistance and hyperinsulinemia. We do not find description of PCOS in Ayurvedic classical tests, but considering the symptoms, it can be correlated with Granti Bhootha Aartava or Pushpaghni Jataharini. In this study, an effort is made to evaluate and statistically analyze the efficacy of Shadushna kwatha and Kanasathwati kwatha in PCOS. These drugs are known to have Kapha Vata Shamaka and Deepana Pachana properties Objectives of Study 1. A Comprehensive study of PCOS and its congruence in Ayurveda. 2. To study the efficacy of Kanasathwati Kwatha and Shadushna kwatha in PCOS and to compare its efficacy. Materials and Methods: A randomized comparative clinical study of two groups, consisting of 20 patients in each group will be taken. Diagnostic criteria were randomly placed in two equal groups. The Group A Kanasathwati kwatha in the dose of 50ml orally twice daily before food with luke warm water as anupana for a period of 3 cycles. The Group B Shadushna kwatha in the dose of 50ml orally twice daily before food with luke warm water as anupana for a period of 3 cycles. Results and Interpretations: Clinical parameters were assessed statistically and results will be concluded. The significance between both the groups will be observed. Conclusion: Kanasathwati kwatha is having a better result than Shadushna Kwatha in PCOS.

Keywords: PCOS; Kanasathwati Kwatha; Shadushna Kwatha

INTRODUCTION

Menstrual cycle or menstruation in women is a natural physiological process. Modern women live a stressful life which is affecting their mental and physical well being adversely. One of the most common menstrual disorders being observed in women is PCOS (Poly Cystic Ovarian Syndrome). PCOS is a heterogeneous endocrine disorder leading to several health complications including menstrual dysfunction, infertility, hirsutism, acne, obesity and metabolic syndrome. PCOS is considered to be the most common life style disorder, and the world wide prevalence of PCOS is 6.5-6.8% according to NIH.
criteria.\textsuperscript{1} It occurs among all the races and nationalities. It is an endocrine disorder affecting women in their reproductive life. It is an ovarian cause of secondary amenorrhea which not only hampers the normal menstrual cycle but also has significant affliction on the fertility of the lady.

The exact pathophysiology of PCOS is not clearly understood but it can be assumed that PCOS occurred due to excess of production of the androgen by the ovaries\textsuperscript{2}. Considering the contemporary science, it is known to feature several hormonal disturbances including hyperandrogenemia, insulin resistance and hyperinsulinemia\textsuperscript{3} and accordingly the treatment is given like hormonal therapy, anti diabetic drugs and surgical ovarian drilling techniques etc. Administration of this hormonal therapy may lead to adverse effects. Hence it is necessary to modulate an alternative medical support, which is of cost effective and cause no adverse effects.

The strength of Ayurveda is the principle of bringing about balance in the \textit{Shareera} and \textit{Manas}. There is no direct reference about this disease in Ayurvedic texts, which indicates that this symptomology was comparatively less prevalent in the ancient times. Considering the symptoms of PCOS, it can be inferred that, in this \textit{avastha}, there is \textit{Avarodha} of \textit{Pushpa} and \textit{Vata} by the \textit{dushita Kapha} and \textit{Medas} where \textit{Anavasthitachittatva} is a major \textit{nidana}. \textit{Pushpaghni Jaataharini}\textsuperscript{4} mentioned by \textit{Kashyapa} bears some resemblance with symptoms of PCOS. From this one can assume that the main dosha which involved in PCOS is the \textit{Kapha} and \textit{Vata}. And our \textit{Acharya’s} has been mentioned many good drugs which are having \textit{Kaphavata shamaka} properties. So there is a wide scope of research in \textit{Ayurveda} to find out the best medicine which is safe and potent remedy to reduce the symptoms, the size of the cyst and to normalize the ovulation. \textit{Kanashatahwati kwatha}\textsuperscript{5} \textit{and Shadushna kwatha}\textsuperscript{6,7} are the yogas which contains drugs having \textit{Kaphavata shamana} and \textit{dipana pachana} properties.

Hence in this study, an effort is made to evaluate and statistically analyze the efficacy of \textit{Shadushna kwatha} and \textit{Kanasatahwadi kwatha} in PCOS.

\textbf{Materials and Methods}

\textbf{Source of Data}

\begin{itemize}
  \item \textbf{Literary Source}
    All the Classical, Modern literature, Journals and Websites about the disease and the medicine has been reviewed and documented for the planned study.
  \item \textbf{Sample Source}
    40 Patients diagnosed with PCOS attending O.P.D. Of Alva’s Ayurveda Medical College and Hospital, Moodbidri and other available sources were selected for the study.
  \item \textbf{Drug Source}
    Raw drugs required has been identified and collected from the available local market and the \textit{Kwatha} has been prepared according to the classical reference at Alva Pharmacy, Mijar.
\end{itemize}

\textbf{Method of collection of data}

A separate case sheet has been prepared with a complete history, physical signs and symptoms, necessary lab Investigations and Ultra sonography (Abdomen and Pelvis). The parameters of signs and symptoms has been scored on basis of standard methods and is been analyzed statistically.

\textbf{Design of study}

A randomized comparative clinical study of two groups, consisting of 20 patients in each group has been taken.

\textbf{Diagnostic Criteria}

Diagnosis is based upon the presence of any two of the following three criteria:

1. Oligo and/or anovulation.
2. Clinical Hyperandrogenism.
3. Polycystic ovaries (diagnosed with USG)

\textbf{Inclusion Criteria}

1. Age group of 18yrs to 35 yrs.
2. Patients fulfilling the Diagnostic criteria.
3. Both married and single.
Exclusion Criteria
1. Patients having gross structural abnormalities of uterus and appendages.
2. Those having primary amenorrhea.
3. Those suffering from malignancies and chronic systemic diseases

Interventions
The Group A has been given *Kanasathwati kwatha* in the dose of 50ml orally twice daily before food with luke warm water as *anupana* for a period of 3 cycles.
The Group B has been given the *Shadushna kwatha* in the dose of 50ml orally twice daily before food with luke warm water as *anupana* for a period of 3 cycles.
The menstrual phase of the menstrual period has been excluded in both groups.

Period of observation
A Visit at the end of the menstrual phase of each cycle for a study period of 3 consecutive cycles.

Assessment Criteria
Subjective Parameters
- Duration of inter-menstrual period
- Duration of menstrual phase
- Amount of bleeding (number of pads)

Objective Parameters
- BMI
- Hirsutism
- Acne
- Cyst

Investigations
1. Ultrasonography of abdomen and pelvis.
2. Following investigations are done if necessary
   - Hormonal Essay
   - Lipid profile
   - Thyroid profile
   - Diabetic profile

DISCUSSION
Effect of the therapies on subjective and objective criteria:
In the present study it was found that clinical features of this condition vary in patient to patient. As menstrual irregularities are found in majority of the patients, associated symptoms like hirsuitism, obesity, acne were not present in all patients. So the effect of therapy was mainly evaluated on the basis of improvement on main symptoms first and then on associated symptoms.

Effect on Interval between two menstrual cycles:
1. The result on the criteria of interval between two menstrual cycle of which Group A shows statistically highly significant result, whereas Group B shows insignificant result.
2. The comparative study proved to be statistically significant which indicates *Kanasathwati Kwatha* is having better result on interval between two menstrual cycles.
3. If we see the % of relief, it is evident that in Group A (57.14%), the percentage of relief on interval is highly compared to Group B (10.34%)
4. These may be because of *Amapachana, Srotosodhana* and *Kapha Vata Samaka* properties of drugs in *Kanasathwadi Kwatha*. Also the drugs such as *Kana, Sathahwa, Tila* are having *Pittakara* and *Artavajanaka* properties thus help in inducing the menstrual cycle.

Effect on Amount of Bleeding:
1. The result on criteria amount of bleeding of both groups showing statistically highly significant result individually, which indicates both Group A and Group B are effective
2. The comparative study proved to be statistically significant which indicates *Kanasathwati Kwatha* is having better result on amount of bleeding.
3. If we see the % of relief, it is evident that in Group A (79.06%), the percentage of relief on amount is highly compared to Group B (47.61%)
4. Some of the drugs in *Kanasathwadi Kwatha* are having *Pittakara* and *Arthavapravartaka* properties and thus helps in the case of oligomennorhoea and hypomennorhoea.
Effect on Duration of Bleeding:
1. i) The result on criteria duration of bleeding in both groups showing statistically highly significant result individually, which indicates both the Group A and Group B are effective
2. (ii) The comparative study proved to be no significant difference in duration of bleeding in the effect of treatment in both the groups
3. (iii) If we see the % of relief, it is evident that in Group A (41.02%), the percentage of relief on interval is highly compared to Group B (22.64%)
4. (iv) These may be because of Amapachana, Srotosodhana and Vata Kapha Samaka properties of both drugs in Kanasatahwadi Kwatha and Shadushna Kwatha

Effect on Intensity of Pain during menstruation
(i) The result on criteria duration of bleeding in both groups showing statistically highly significant result individually, which indicates both the Group A and Group B are effective
(ii) The comparative study proved to be no significant difference in the intensity of pain during menstrual cycle in the effect of treatment in both the groups
(iii) If we see the % of relief, it is evident that in Group A (86.36%), the percentage of relief on interval is highly compared to Group B (79.92%)
(iv) Vatakapha Samana, Anulomana, Raktha Sodhana, properties of the drugs may contribute to reduce pelvic congestion thereby reducing intensity of pain.

Effect on BMI, Hirsutism And Follicular Size
(i) The result on this criterion on BMI, Hirsutism and Follicular size of both groups showed statistically insignificant result individually, which indicates both groups are ineffective. The comparative study proved to be statistically insignificant too.

Effect on Acne
1. The result on criteria of acne in both groups showing statistically highly significant result individually, which indicates both the Group A and Group B are effective
2. The comparative study proved to be no significant difference in acne in the effect of treatment in both the groups
3. If we see the % of relief, it is evident that in Group A (40.74%), the percentage of relief on amount is highly compared to Group B (34.78%)
4. The drugs which are used in Kanasatahwati and Shadushna Kwatha, both are having the properties of Deepana Pachana and drugs like Tila is having Varnya properties and thus helps in the formation of Dhatus (Pishana of Raktha Dhathu) which aids in the reduction of Mughadushika and also acting on the pathophysiological aspect bringing about ovulation and thereby correcting the hormonal imbalance.

Overall assessment
There was mild improvement in 90% of cases in group A and 35% of cases in group B; moderate improvement in 10% of cases in group A and 65% of minimal improvement is seen in Group B.

P value of all criteria of Group A and Group B

<table>
<thead>
<tr>
<th>Signs and symptoms</th>
<th>Mean difference and P value</th>
<th>Percentage of relief (with 38df)</th>
<th>t value</th>
<th>P value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Group A</td>
<td>Group B</td>
<td>Group A</td>
<td>Group B</td>
<td></td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------------------------</td>
<td>----------------------------------</td>
<td>---------</td>
<td>---------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Interval between the cycles</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P &lt; 0.001</td>
<td>0.800</td>
<td>0.150</td>
<td>57.14%</td>
<td>10.34%</td>
<td>5.284</td>
</tr>
<tr>
<td></td>
<td>P &lt; 0.001</td>
<td>0.800</td>
<td>0.150</td>
<td>57.14%</td>
<td>10.34%</td>
</tr>
<tr>
<td>Duration of bleeding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P &lt; 0.001</td>
<td>0.800</td>
<td>0.600</td>
<td>41.02%</td>
<td>22.64%</td>
<td>1.378</td>
</tr>
<tr>
<td></td>
<td>P &lt; 0.001</td>
<td>0.800</td>
<td>0.600</td>
<td>41.02%</td>
<td>22.64%</td>
</tr>
<tr>
<td>Amount of bleeding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.700</td>
<td>1.000</td>
<td>79.06%</td>
<td>47.61%</td>
<td>3.390</td>
</tr>
</tbody>
</table>

P value of all criteria of Group A and Group B
**Conclusion**

- A sedentary and stress dominated lifestyle of the young woman today has led to the increased incidence of PCOS.
- Kapha-Vata avarana to the arthava vaha srothas can cause nashtarthava or aartavakshaya which is high up in PCOS.
- Agneya quality of Pitta is reduced in PCOS which is essential for normal arthava pravrithi.
- The line of treatment should be of kapha vata hara and pitta vardhana.
- The study has shown Kanasatahwadi kwatha is more effective than Shadushna kwatha in oligo/hypomennorhoea, acne and also helps in restoring the normal menstrual cycle. So the null hypothesis is rejected. Alternate hypothesis is accepted (H3) i.e. Kanasathwadi kwatha is more effective than Shadushna kwatha in the treatment of PCOS.

**References**


Source of Support: Nil
Conflict Of Interest: None Declared

How to cite this URL: Durga Chandran & Vandana Baranwal: A Comparative Clinical Study To Evaluate The Efficacy Of Shadushna Kwatha And Kanasatbihwati Kwatha In PCOS. International Ayurvedic Medical Journal {online} 2018 {cited August, 2018} Available from: http://www.iamj.in/posts/images/upload/1668_1673.pdf